skin rash and inflammation liver or bile duct inflammation Abscess (a collection of pus, which can develop in the abdomen, pelvis, or around the anal area) Fistula (intestinal ulcers that extend and form a tunnel (fistula) to another part of the intestine, the skin, or another organ) Intestinal obstruction, a blockage in the intestine Anal fissures (small tears in your anus that may cause itching, pain, or bleeding) Ulcers, open sores in your mouth, intestines, anus Malnutrition (it occurs when your body does not receive the necessary vitamins, minerals, and nutrients). Inflammation in other areas of your body, such as your joints, eyes, and skin Types of Crohn’s disease

There are five types of Crohn’s disease including:

Crohn’s colitis: When disease affects only the colon. Gastroduodenal Crohn’s disease: It is characterized by chronic inflammation of the stomach and the first part of the small intestine, or the duodenum. Ileitis: It is a condition that affects the ileum, or small intestine. Ileocolitis: It is the most common type of Crohn’s disease, affecting the ileum and colon. Jejunoileitis: The disease affects the upper half of the small intestine. Causes Of Crohn’s disease

The exact cause of IBD is unknown, but it is thought to involve a combination of genetic predisposition, infectious, immunological, dietary, and environmental factors.

Crohn’s disease causes inflammation (swelling) anywhere from the mouth to the anus. However, the disease most commonly affects the junction of the small intestine and the colon (ileum). It begins with lesions near the intestinal crypt (a gland found in intestines). It eventually spreads to form ulcers, first in the superficial layer and then in deeper intestine tissues.

As the swelling worsens, non-caseating granuloma (cell swelling without cell death) forms, which is very common in Crohn’s disease. This ongoing swelling causes bowel obstruction and stricture formation (a narrowing of the bowel which can lead to an intestinal blockage). Risk Factors For Crohn’s disease

Risk factors for Crohn’s disease may include: 1. Genetic predisposition Genetics may also play a role, since Crohn’s disease can run in families. Having a close relative with Crohn’s disease increases the likelihood of developing the condition. If both parents have inflammatory bowel disease (IBD), the risk of developing Crohn’s disease rises to 35%..

Note: As per study it has been found that children who have one parent with Crohn’s disease have a 7 to 9 percent lifetime risk of developing the condition. They also have a 10 percent chance to develop some form of inflammatory bowel disease.

1. Age CD can occur at any age but the condition mostly develops before or around 30 years of age.
2. Immunity Crohn’s disease is an autoimmune-mediated inflammatory condition. Foreign invaders such as bacteria, viruses, fungi, and other microorganisms are typically attacked and killed by the immune system. An autoimmune reaction occurs when your immune system incorrectly attacks healthy cells in your body, causing an abnormal response to the intestinal tract and swelling. This causes chronic inflammation (swelling), ulceration, intestinal wall thickening, and, eventually, Crohn’s disease symptoms.

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1. Stress Stress may also have an important role in the pathogenesis of IBD. It has been proposed that stress may initiate or reactivate the gastrointestinal inflammation leading to the deterioration of clinical symptoms of IBD.

Learn more about how stress can affect the body. Click Here to Know More

1. Environmental factors There are several environmental factor that can increase the risk of developing and flaring up Crohn’s disease, such as- Painkillers: Long term use of painkillers or Nonsteroidal anti-inflammatory drugs such as aspirin, and ibuprofen especially in women increases the risk of IBD (Inflammatory Bowel Disease).

Smoking: Cigarette smoking also increases the likelihood of developing Crohn’s disease. Active smokers are more than twice as likely to develop Crohn’s disease as nonsmokers.

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Poor diet: Poor dietary habits such as diets high in sugar, omega-6 fatty acids, polyunsaturated fatty acids, total fat, oil, meat etc. have also been associated with an increased risk of developing CD (Crohn’s disease).

Note: IBD or Crohn’s disease are not triggered by eating any one particular food. But for some people, certain foods can aggravate symptoms.

Appendicitis: Children who have their appendix removed are less likely to develop ulcerative colitis later in life, but they may be more likely to develop Crohn’s disease.

Oral contraceptives or HRT(hormone replacement therapy): Both hormone replacement therapy and oral contraception may increase the risk of IBD in women.

Want to know more about oral contraceptives? Click Here Now

Antibiotics: Antibiotic exposure during childhood may increase the risk of IBD or Crohn’s disease.

Lear more about antibiotics Learn more about antibiotics Diagnosis Of Crohn’s disease

To diagnose Crohn’s disease, doctors typically use combination of tests. Before undergoing a physical examination, you must inform your doctor about your medical history, including any medications you are taking and your family history.

1. Physical examination Examines your abdomen for bloating Using a stethoscope, listens for sounds within your abdomen. Taps on your abdomen to detect tenderness and pain, as well as to determine whether your liver or spleen is abnormal or enlarged.
2. Lab tests It includes blood tests (RBC and WBC’s count) and stool test. Blood tests- This test checks for high levels of white blood cells, which are indicative of inflammation or infection. The test also looks for anemia, or a low red blood cell count. Stool test- It checks for bacteria or parasites. It is useful in ruling out infections that cause chronic diarrhea.
3. Imaging tests Intestinal endoscopy- It includes the following Endoscopy, colonoscopy - These are invasive tests in which a probe is inserted via the mouth (endoscopy) or the rectum (colonoscopy) to visualize the inner structures of the digestive tract in real-time.

Biopsy- During the biopsy, a small piece of tissue is removed from the inside of the intestine for further testing and analysis. Biopsy sample is also taken in the case of cancer.

Chromoendoscopy- A blue liquid dye is sprayed into the colon to highlight and detect minor changes in the lining of the intestine. Polyps can also be then removed and/or biopsied.

Capsule endoscopy- In capsule endoscopy, a capsule is swallowed containing a tiny camera that allows the doctor to visualise inside the digestive tract.

X-rays and fluoroscopy- For the procedure, you will be asked to stand or sit in front of an x-ray machine and drink barium. On an x-ray, the barium will make your upper GI tract more visible. The radiologist will then observe the barium moving through your upper GI tract on x-ray and fluoroscopy.

CT Scan and Magnetic resonance enterography (MRE) - A CT scan (also known as computed tomography) is a machine that takes a series of x-rays to make a picture of the digestive tract. MRE is an imaging test which produces detailed pictures of your small intestine.

Book an appointment for lab test Click Here Celebs affected Frank Fritz Fritz, one of the stars of the History Channel’s reality series American Pickers, is an antiques treasure hunter who has battled Crohn’s for more than a quarter century. “Crohn’s is like a duck,” he said. “Ducks look calm, floating quietly on the surface of the water, but underneath they are paddling like crazy. It’s the same for people with Crohn’s—on the outside you can’t really tell, but I’m working really hard to stay in control as much as I can.” Kevin Dineen Dineen, now coach of the Florida Panthers, says that the disease was “a real eye-opening experience” because there’s no quick fix. He said,“This is a chronic, debilitating disease that’s with you for life,” he says. “It took me a couple of years to come to grips with that.” Prevention Of Crohn’s disease

The “treat to target” or “tight control” approach is quickly becoming the approach in the treatment and management of many chronic conditions, including IBD and Crohn’s disease. Certain lifestyle modifications can help prevent the condition as follows-

1. Follow a few dietary rules Such as limiting dairy products, having a fibrous diet comprising fruits, vegetables, legumes and whole grains. Restrict foods with low amounts of fiber such as processed and packaged foods, milk and meat products.

Want to know how a healthy diet can help you? Read this now

1. Drinking plenty of water Drink a minimum of 8 glasses of water during a day. Restrict intake of alcohol and caffeine in the form of coffee and soft drinks as they tend to dehydrate the body.
2. Quit smoking Cigarette smoking flare up the Crohn’s symptoms or even worsen them.

Looking to quit smoking, but finding it very difficult? Read about some practical ways that will help you get rid of this unhealthy habit Check Out

1. Get screening for colorectal and cervical cancer Consult your doctor about getting screened for colorectal cancer. Patients with IBD may need to begin colorectal cancer screening before the age of 50. Talk to your doctor about how to prevent cervical cancer if you are a woman with IBD. Cervical cancer is more common in IBD patients.
2. Immunize yourself Immunizations against infectious diseases are part of primary prevention efforts. IBD patients are more likely to contract vaccine-preventable illnesses such as influenza, pneumococcal pneumonia, and shingles. As a result, following vaccination guidelines for inactivated vaccines can help to reduce these infectious complications.

Note: Immunization is the key to the prevention of diseases. Know more about immunization

1. Exercise regularly Stay active by exercising on a regular basis. To aid digestion, perform light exercises such as walking after consuming heavy meals.
2. Manage stress Stress and anxiety can aggravate Crohn’s disease symptoms. Stress can also precipitate flare-ups.

Is stress affecting your overall well being? Try some relaxation techniques to manage stress. Read to know more Doctor To Visit

The first step is to find a qualified gastroenterologist who is a specialist in treating patients with Crohn’s disease or ulcerative colitis. In order to diagnose and treat the symptoms of Crohn’s disease, you need to visit:

General physician Infectious disease specialist Gastroenterologist

A gastroenterologist is a medical practitioner specializing in the diagnosis and treatment of disorders of the gastrointestinal tract and related organs. An infectious disease specialists is a physician who diagnoses and treatments acute and chronic diseases caused by bacteria, viruses, fungi, parasites, and even prions.

When to see a doctor? You must visit a doctor if Crohn’s disease becomes a chronic problem and/or is accompanied by one or more of the following symptoms such as: Frequent diarrhea Vomiting Blood or mucus in the stools Fever Unexplained weight loss Severe abdominal pain Fatigue Night sweats

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The medical treatment is broadly classified into five groups-

1. Aminosalicylates It helps control swelling at the wall of the intestine. It is usually prescribed to treat people who are newly diagnosed with Crohn’s disease and have mild symptoms. These drugs include: Balsalazide Mesalamine Olsalazine Sulfasalazine
2. Corticosteroids These, also known as steroids, help to suppress the immune system and reduce swelling. It is usually given to people who have moderate to severe symptoms. They are effective for controlling flare-ups in the short term. Because of their side effects, they are not recommended for long-term or maintenance use. Drugs include: Budesonide Hydrocortisone Methylprednisolone Prednisone
3. Immunomodulators These medications suppress the immune system, resulting in less swelling in the digestive tract. These medications are used to keep people in remission who have not responded to other medications or have only responded to steroids. The drugs include: 6-mercaptopurine 6-MP, azathioprine Cyclosporine Methotrexate
4. Biologic therapies Biologic therapies are indicated for people with with moderate to severe active disease who have not responded well to conventional therapy.The drugs that are used include:

Adalimumab Certolizumab Infliximab Natalizumab Vedolizumab Ustekinumab

1. Other medicines Acetaminophen: It is used for mild pain. Antibiotics:it is used to prevent or treat complications that involve infection, such as abscesses and fistulas such as ciprofloxacin and metronidazole. Loperamide: It helps to slow or stop severe diarrhea.
2. Surgery Even with medicines, many people will need surgery to treat their Crohn’s disease. There are different types of operations to treat Crohn’s disease such as-
3. Small bowel resection- This surgery often involves removal of the diseased segment of bowel (resection), the two ends of healthy bowel are then joined together (anastomosis). There are two types of small bowel resection-

Laparoscopic: Laparoscopic surgery is a minimally invasive surgical technique used in the abdominal and pelvic areas. The surgeon inserts a laparoscope to get a close-up view of the small intestine.

Open surgery: When a surgeon makes one incision about 6 inches long in your abdomen to remove the diseased or blocked section of small intestine and reconnect the intestines again.

1. Subtotal colectomy or large bowel resection- It is done to remove part of your large intestine.It is again of two types-

Laparoscopic colectomy- In it the surgeon removes the diseased or blocked section of your large intestine and again reconnects the ends of the large intestine.

Open surgery- When a surgeon makes one incision about 6 inches long in your abdomen to remove the diseased or blocked section of large intestine and reconnect the intestines again.

3 Proctocolectomy and ileostomy- It is a surgical procedure that removes your entire colon and rectum. An ileostomy is a stoma, or opening in your abdomen, created by a surgeon from a section of your ileum. Did you know? Over a span of 5 years, studies have shown that 18% of Crohn’s patients may eventually require surgery. But now, this percentage has significantly declined within the last several years because of various treatment options available according to the severity of disease. Complications Of Crohn’s disease

Some people develop complications that may require urgent medical care which includes-

1. Fistulas- Fistulas are ulcers on the intestine’s wall that spread and form a tunnel (fistula) to another part of the intestine, the skin, or another organ.
2. Stricture- It is a narrowing of an intestine section caused by scarring, which can result in an intestinal blockage.
3. Abscess- A collection of pus that can form in the abdomen, pelvis, or around the anal area. A doctor may drain an abscess with a needle inserted through your skin or through surgery.
4. Perforated bowel- chronic intestine swelling can weaken the wall to the point where a hole forms.
5. Anal fissures- Anal fissures are small tears in the anus that can cause itching, pain, and bleeding. The majority of anal fissures heal with medical treatment, such as ointments, warm baths, and dietary changes.
6. Intestinal obstruction- a blockage in the intestine.
7. Ulcers- open sores in your mouth, intestines, anus, or perineum
8. Malabsorption and malnutrition, including deficiency of vitamins and minerals- You may need IV fluids or feeding tubes to replace lost nutrients and fluids.
9. Swelling (in other parts of body such as your joints, eyes, and skin)

Complications outside the GI tract

Some patients develop symptoms that are related to the disease but affect other parts of the body. The extraintestinal complications include: Eyes (redness, pain, and itchiness) Mouth (sores) Joints (swelling and pain) Skin (tender bumps, painful ulcerations, and other sores/rashes) Bones (osteoporosis) Kidney (stones) Anemia, a condition in which you have fewer red blood cells than normal Liver ( hepatitis, and cirrhosis)- occurs rarely Cancer- People with Crohn’s disease of the colon or ulcerative colitis have a higher risk for colorectal cancer than the general population. Blood clots- People with IBD have about a three times greater risk than the general population for developing blood clots that form in veins and lungs arteries. Primary Sclerosing Cholangitis (PSC)- PSC is a form of severe swelling and scarring that develops in the bile ducts. Alternative Therapies For Crohn’s disease

Along with the medicine your doctor prescribes, you may want to add “complementary” treatments to help with Crohn’s symptoms, boost your immune system, or just feel better every day.

1. Pay attention to diet: Changing your diet can help reduce symptoms. You must try following diet modifications: Avoiding carbonated drinks During a flare-up, avoid high fiber foods, dairy, sugar, high fat foods, and spicy foods. Drinking more liquids Eat small meals, boil or steam food instead of frying it. Keeping a food diary to help identify foods that cause problems
2. Probiotics: Probiotics aim to restore that balance by adding good bacterias in the gut. They can help improve digestion and certain strains have shown they help reduce symptoms of Crohn’s. Food sources of probiotics include yogurt, tofu etc.

Here’s more about the health benefits of probiotics. Click To Read

1. Prebiotics: Prebiotics provide fuel for the good bacteria growing in your digestive tract. Some prebiotic sources include asparagus, legumes, bananas etc.

Probiotics and prebiotics may prove effective in keeping our gut healthy. Check out our prebiotics and probiotics supplement range. Tap Here

1. Anti-inflammatory food: It includes virgin olive oil, green leafy vegetables (spinach, kale), fatty fish (tuna, salmon), fruits (strawberry, cherries, oranges) etc. These foods will help combat free radical damage and encourage less overall inflammation (swelling).

Read more about anti inflammatory diet for a healthy body Tap Now

1. Herbs: Aloe vera juice- Has calming effects that may help digestion and improve immunity Glutamine- An amino acid that helps in intestine functioning Turmeric (Haldi) It has anti-inflammatory properties and reduces swelling

Read more about 5 other benefits of turmeric for a healthy body Click here

Note: Talk to your doctor or dietician if you have any concerns about diet or food. But do not start any supplements or dietary modifications on your own without consulting your doctor or dietician.

1. Exercise and yoga: Any form of exercise or yoga can ease stress is a great way to relax and help your intestines work more normally. That can be key for Crohn’s, since stress can trigger flare-ups and make symptoms worse.

Know more about yoga benefits. Tap Here

1. Take proper rest: During flare-ups, you should consume a liquid diet to allow your system to rest and re-set. Aside from bowel rest, try to get extra sleep, go slowly, avoid stress and intense exercise, and take naps as needed. Allow your body to heal.
2. Moxibustion:It is a type of traditional chinese medicine that is typically administered in conjunction with acupuncture. The two approaches are thought to complement each other best. It’s similar to heat therapy. Dry herbs are burned close to your skin, often near acupuncture points. Moxibustion combined with acupuncture may help with Crohn’s symptoms. Frequently Asked Questions Can Crohn’s disease be cured? Who is at risk of Crohn’s disease? How do people cope with Crohn’s disease? Can Crohn’s affect your liver? Can my diet cause Crohn’s disease? References Crohn’s Disease. National Cancer Institite. About crohn’s disease (no date) Genome.gov. Available at: Buffet-Bataillon, S. et al. (2022) Gut microbiota analysis for prediction of clinical relapse in crohn’s disease, Nature News. Nature Publishing Group. Available at: Crohn’s & colitis foundation (no date). Available at: Caio, G. et al. (2021) Nutritional treatment in crohn’s disease, MDPI. Multidisciplinary Digital Publishing Institute. Available at: Crohn’s disease (no date) UCLA Health System. Available at: Environmental triggers (no date) Crohn’s & Colitis Foundation. Available at: Crohn’s disease diagnosis and testing (no date) Crohn’s & Colitis Foundation. Available at: Diagnosis of crohn’s disease (no date) National Institute of Diabetes and Digestive and Kidney Diseases. U.S. Department of Health and Human Services. Available at: Practicalgast (2020) Prevention in inflammatory bowel disease: An updated review, Practical Gastro. Available at: 8 natural treatments for crohn’s disease symptoms (by RD) (2020) Nori Health. Available at: Mental and emotional well-being (no date) Crohn’s & Colitis Foundation. Available at: Pallarito, K. (2011) 11 celebrities with crohn’s disease, Health. Health. Available at: StatPearls (2022) Crohn disease, StatPearls. StatPearls Publishing. Available at: Veauthier, B. and Hornecker, J.R. (2018) Crohn’s disease: Diagnosis and management, American Family Physician. Available at: Ha, F. and Khalil, H. (2015) Crohn’s disease: A clinical update, Therapeutic advances in gastroenterology. U.S. National Library of Medicine. Available at: Day, J.A. (2022) Gastroenterology & Hepatology: Johns Hopkins Division of Gastroenterology and Hepatology, Gastroenterology & Hepatology | Johns Hopkins Division of. Available at:

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Vitiligo Also known as Leucoderma and Piebald skin Overview Vitiligo is an autoimmune condition that causes areas of skin to lose color, resulting in spots and patches on the skin. It is caused by the lack of melanin, a pigment that gives color to the skin. Vitiligo can affect any area of skin, but it commonly appears on sun-exposed body parts like the face, neck, and hands, and in skin creases.

The condition varies from person to person and there’s no way of predicting how much skin will be affected. Some people only get a few small, white patches, but others get bigger white patches that join up across large areas of their skin. The lack of melanin in your skin can turn the hair in the affected area white or gray.

Vitiligo may be triggered by particular events, like stressful skin damage, severe sunburn or cuts (this is known as the Koebner response), or exposure to certain chemicals.

Treatment varies depending on the severity of the condition. It usually comprises medications to suppress autoimmunity, topical creams to lighten the skin, or procedures like depigmentation and skin grafting. Key Facts Usually seen in Individuals between 10-30 years of age. Gender affected Both men and women, but more common in women. Body part(s) involved Face Hands Inner area of the mouth Genitals Nose Rectum Eyes Inner ear Prevalence World: 0.5% to 2% (2020) India: 0.25% to 4% (2019) Mimicking Conditions Phenols and other derivatives Genetic syndromes Hypomelanosis of Ito Piebaldism Tuberous sclerosis Vogt-Koyanagi-Harada syndrome Waardenburg syndrome Hermanski-Pudlak syndrome Menke’s syndrome Ziprkowski-Margolis syndrome Griscelli’s syndrome Pityriasis alba Atopic dermatitis/allergic contact dermatitis Psoriasis Lichen planus Toxic drug reactions Posttraumatic hypopigmentation (scar) Phototherapy- and radiotherapy-induced Melanoma-associated leukoderma Mycosis fungoides Leprosy Pityriasis Versicolor Leishmaniasis Onchocerciasis Treponematoses (pinta and syphilis) Idiopathic Idiopathic guttate hypomelanosis Progressive (or acquired) macular hypomelanosis Nevus anemicus Nevus depigmentosus Lichen sclerosis et atrophicus Melasma Halo nevus Progressive macular hypomelanosis Hypopigmented mycosis fungoides Necessary health tests/imaging Wood’s lamp test Dermoscopy Blood tests Eye exam Skin biopsy Treatment Medications Corticosteroids: Betamethasone and Clobetasol Vitamin D3 analogs: Calcipotriol and Tacalcitol Methotrexate Topical medications: Methoxsalen, Tioxasalen, Psoralen, Valerate, Fluticasone propionate, and Triamcinolone Phototherapy Depigmentation Surgery See All Symptoms Of Vitiligo

Vitiligo presents itself clinically as white spots on the body distributed symmetrically and more obvious in people with dark skin. Discoloration first shows on sun-exposed areas like hands, lips, arms, and face. Other symptoms include:

Loss of skin color Loss of color inside of your mouth and nose Change in color of the inner layer of the eyeball Hyperpigmentation at the edges of the discolored patches on the skin White patchy lesions Development of vitiligo at specific trauma prone sites, like cut, burn, or abrasion Premature graying of the hair Types Of Vitiligo

Vitiligo has 3 major types and they include:

Segmental vitiligo: Also called unilateral or localized vitiligo, it is an autoimmune disease. Segmental vitiligo affects one side of the body. It is generally seen in younger age groups, affecting about 30% of children diagnosed with vitiligo. Non-segmental vitiligo: It is the most common type with 90% of cases. This is also an autoimmune disease which affects both sides of the body, most often appearing on sun-exposed parts like the face, neck, and hands. Mixed vitiligo: This type is a convergence of both types of vitiligo, rare cases where segmental becomes non-segmental.

Know more about facts related to vitiligo that you may not be aware of. Read This Now!

Causes Of Vitiligo

Vitiligo occurs when the melanocytes (cells producing melanin, a pigment that gives color to eye skin and hair) die or stop functioning. The exact cause of vitiligo is unknown, though it is frequently associated with multiple autoimmune diseases. There are various theories and it is hypothesized that genetic factors can influence the age of onset of vitiligo. Risk Factors For Vitiligo

Vitiligo is often related to autoimmune disorders, and your chances of developing vitiligo increase if you have the following risk factors: Gender Both sexes are equally affected, however, some studies report an increased risk for more extensive depigmentation in the female gender. Family history Vitiligo sometimes runs in families, but the inheritance pattern is complex because of multiple causative factors. Immunotherapy It is an option for treating melanoma(a type of skin cancer) that can lead to autoimmune side effects, including vitiligo-like depigmentation. Autoimmune conditions Studies show that vitiligo seems more common in people who have certain autoimmune diseases, like Addison’s disease, pernicious anemia, psoriasis, rheumatoid arthritis, systemic lupus erythematosus (SLE), thyroid disease, and type 1 diabetes. Sunburn Research has shown that a history of a blistering sunburn may be associated with a higher risk of developing vitiligo in a population of white women.

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Stress Studies suggest that environmental and psychological stressors are triggers for the onset and progression of vitiligo. Industrial chemicals Chemical triggering factors, both household and industrial (occupational) play a very significant role in the induction and propagation of vitiligo. Viral infections Vitiligo may be an example of an autoimmune disease triggered by a viral infection in an individual who is genetically susceptible.

Learn more about how viruses spread and how to prevent viral infections. Watch This Video Now!

Diagnosis Of Vitiligo

The diagnosis of vitiligo is generally straightforward and does not usually require confirmatory laboratory tests. Diagnosis can be confirmed by the following: Physical examination and medical history The diagnosis of vitiligo is usually made on clinical features and the important while examining and taking past medical history must include:

How long has the lesion been present Factors or events that may have caused the onset of vitiligo Are there any symptoms associated with the lesions How is the progression or spread of lesions Are there any changes in lesions over time Presence of any other diseases Current medications Occupational history or any exposure to chemicals or radiation Family history of vitiligo and other autoimmune diseases

Wood’s lamp test The Wood’s lamp is often used to diagnose skin disorders like melasma (patches and spots on the skin) and vitiligo. Under the Wood’s light, the vitiligo lesions emit a bright blue-white fluorescence and appear well demarcated.

Dermoscopy It is useful in assessing the stage and disease activity of vitiligo. Typically vitiligo shows residual pigmentation and telangiectasia, which are usually absent in other hypopigmentation disorders.

Other tests These are usually done to exclude other disorders. They include: Blood tests to check for other autoimmune conditions An eye exam to check for uveitis (inflammation of part of the eye)generally seen in individuals with vitiligo. A skin biopsy to examine the tissue for the missing melanocytes seen in the depigmented skin of a person with vitiligo.

Book your tests from the comfort and safety of your home. Click Here!

Celebs affected Winnie Harlow Winnie Harlow is a top model who has walked ramps all across the world and is considered a face of persons with vitiligo. She says that vitiligo is just another difference like long hair, blonde hair, white skin, short height, etc. Michael Jackson Michael Jackson, the King of Pop, was one of the most famous people with vitiligo. According to an interview, the white patches started appearing on MJ’s skin when he was around 24 years old. In the beginning, he used make-up to hide the spots. Later, he used treatment to de-pigment his entire body. Prevention Of Vitiligo

Vitiligo isn’t preventable or curable as the exact cause for it is still not very clear. However, there are certain tips that can help prevent future depigmentation and return some amount of color to the skin by protecting your immune system and skin. They include:

Protect yourself from the sun Sunburns can worsen vitiligo. You can protect your skin from the sun with the following. To protect your skin from the sun, follow these tips:

Seek shade especially when you see a short shadow because the sun’s damaging rays are the strongest during that time Wear clothing that protects your skin from the sun Use a hat and clothing to protect your skin from vitiligo from the sun Use a sunscreen that best suits your skin every day when you go outside

Read about tips to choose the right sunscreen for your skin. Click Here!

Try to avoid injuries Skin injuries like cuts, scrapes, and burns can trigger new spots or patches. It is best to be careful and steer clear of anything that can cause an injury. Stay away from artificial tanning Never use a tanning bed or sun lamp and can burn skin that has lost pigment worsening vitiligo. If you want to add color to your skin, use camouflage makeup, self-tanner, or skin dye. Understand the risks of getting a tattoo Tattoos can be tempting and seem like a nice alternative to cover up a light spot or patch but, a tattoo can wound your skin leading to the Koebner phenomenon, which causes new spots of vitiligo to develop where you injure your skin.

Get all your queries answered about getting a tattoo. Watch This Video!

Opt for a healthy lifestyle Vitiligo is an autoimmune disease which means that your immune system is attacking healthy cells. Choosing a healthy lifestyle that consists of eating right, exercising regularly, managing your stress, and avoiding alcohol and cigarettes can take you a long way.

Want to quit smoking? Try our range of smoking cessation products and detach yourself from this deadly habit. Buy Now!

Specialist To Visit

Vitiligo is a disease that causes the skin to lose color in patches. The doctors that can be your best option to treat and manage vitiligo are:

Primary care provider Dermatologist

A primary care provider is a doctor that prevents, diagnoses, and treats diseases. A dermatologist focuses on disorders of the skin, nails, and hair.

Get a consultation from our team of non-judgemental and trusted doctors. Book Consultation Now!

Treatment Of Vitiligo

There are various types of treatments available from topical medications to therapies that can help manage this condition and these include:

Medications No medications or therapy can stop vitiligo, but there are certain drugs that when used alone or with light therapy, can help restore some skin tone. They include: Corticosteroids: The main therapeutic effect of corticosteroids in vitiligo is modulation and inhibition of inflammation. Corticosteroids are also given orally with the main objective to suppress the immune response and stabilize the disease. The most commonly used corticosteroids are: Betamethasone Clobetasol

Calcineurin inhibitors: These are immunomodulators that inhibit inflammation. These are recommended for the head and neck areas as they have fewer side effects.

Vitamin D3 analogs: Vitamin D is an essential hormone synthesized in the skin and is responsible for skin pigmentation. Vitamin D analogs that are known to induce repigmentation in patients with vitiligo are: Calcipotriol Tacalcitol

Methotrexate: It decreases the number of T cells and has anti-inflammatory, and immunomodulatory effects.

Prostaglandin F2 alpha analogs: These are used for ocular hypertension that happens due to hyperpigmentation.

Statins: These are lipid-lowering drugs and their role in vitiligo is to provide anti-inflammatory and immunomodulatory effects.

Azathioprine: This is an immunosuppressant that inhibits DNA synthesis in immune effector cells. Cyclosporine: Certain studies suggest cyclosporine leads to earlier disease stabilization in active vitiligo activity when given in low doses.

Tofacitinib: It is an arthritis drug that has shown some promising results in management of vitiligo.

Topical management Topical formulations that are helpful for repigmentation of skin and with the least amount of side effects are: Methoxsalen Trioxsalen Psoralen Corticosteroids like Betamethasone Valerate Fluticasone propionate Triamcinolone Alobetasol

Phototherapy It is a treatment done with a special type of light (not sunlight). Phototherapy for vitiligo uses UV-A and narrowband UV-B therapy, which constitutes the principal treatment modality for generalized vitiligo. Longer treatment duration, at least 6 months should be encouraged to enhance the treatment response.

Recent advances Vitiligo needs comprehensive treatment and the most recent advances to treat vitiligo are:

Minocycline: Studies suggest that minocycline 100 mg helped in arresting disease activity. Afamelanotide: This a longer-acting synthetic analog of the alpha-melanocyte motivating hormone, has also shown promise in initial clinical studies. Surgical transplantation: A variety of cellular transplantation techniques have been investigated in vitiligo that have shown some promising results.

Read more about drugs used in the treatment of vitiligo. Click Now!

Home-care For Vitiligo

There are many treatment options from creams, oral medicines, and ultraviolet treatment, to treat vitiligo and they totally depend upon the condition and response of the skin cells. There are certain effective natural home remedies used to treat vitiligo and they have no side effects, however, always consult your doctor before starting anything new. The natural ingredients that can be beneficial for vitiligo include:

Mustard oil (Sarson ka tel): This is a very effective home remedy used to heal vitiligo. Make a paste with turmeric and mustard oil and apple for 20 mins the affected area. Turmeric along with mustard oil stimulates the pigmentation of the skin.

Turmeric (Haldi): Turmeric has a lot of medicinal benefits and also acts as a home remedy to cure vitiligo disease. One can lower the effects of vitiligo by using turmeric.

Honey (Shahad): It is a natural moisturizer filled with antioxidants and directly applying honey on the face gives it a much-needed boost of nutrition and moisture.

Ginger (Adrak): This is the best home remedy to treat vitiligo and many other skin diseases. Drinking ginger juice twice a day can help heal vitiligo.

Ghee: It has numerous benefits like blood purification, increasing immunity increases and aiding in skin-related problems.

Black pepper (kali mirch): It is known for its benefits in skin problems and wrinkles.

Note: One effective home remedy used to treat vitiligo is to heat 10 peppers in 10 gm of ghee. Then, remove the pepper and mix this ghee with normal ghee. Consuming this ghee regularly will purify the blood and improve immunity.

Learn more about 6 amazing medicinal benefits of black pepper. Read Now!

Complications Of Vitiligo

Vitiligo can make one conscious about the way they look and can cause social stigmatization and mental stress. Other complications include:

Eye involvement like iritis (swelling and irritation in the colored ring around your eye’s pupil) Depigmentation of the skin making it more prone to sunburn, and skin cancer Loss of hearing due to melanocytes impairment in the inner ear Skin degeneration after prolonged use of topical steroids. Alternative Therapies For Vitiligo

The latest alternative or complementary therapies have proven to yield good results in treating vitiligo. Some of them include:

Depigmentation therapies These refer to medical treatments that remove skin pigmentation. These therapies are generally recommended for extensive and refractory vitiligo, when >50% of the body surface is affected or if cosmetically sensitive areas are the major component involved.

Skin grafting Studies have shown that skin grafting can be used in patients with acute and hard-to-heal chronic wounds, burns, and stable vitiligo. The use of advanced therapies may improve the quality of life, and accelerate the re-pigmentation of patients with vitiligo.

Suction blister grafting (SBG) SBG is an easy and cost-effective method of repigmentation generally done to treat vitiligo at difficult sites like the angle of the lip. The quality of repigmentation matches accurately with the adjacent skin.

Micro-pigmentation Also termed medical tattooing, micro-pigmentation can be used as an alternative treatment for patients with vitiligo who are resistant to conventional treatments. It involves implanting small particles of natural pigment under the skin just like a tattoo. Living With Vitiligo

Vitiligo may not be a life-threatening disorder but the toll it can take on one’s mind and body can be massive. The human race has still not evolved on matters of appearance and the social stigma around the way one looks can be quite disturbing. Learning to accept your condition and adapt to it can help improve your quality of life. Here are a few things to keep in mind while living with vitiligo include:

Give mental health the utmost priority If you feel depressed or self-conscious about changes to your appearance, talk to your dermatologist who might recommend counseling or a support group. Counseling can be helpful in coming to terms with these issues.

Learn more about your condition Knowledge is power and knowing about treatment, what can worsen your vitiligo, and other facts can help you decide what’s right for you and can play an active role in your care, which can help you feel more in control.

Connect with other people with vitiligo The emotional aspects of having vitiligo are often overlooked, but the struggle is real. Talking to others with the same condition can help you feel less alone and there’s real power in supporting others, no matter the cause, and whether you’re someone who lives with vitiligo yourself.

Eat the right kind of diet Add vegetables, fruits, nuts, seeds, and spices that are all high in antioxidants. Foods high in omega-3 (but lower in omega-6) could also help improve your symptoms. These include oily fish, nuts, seeds, and algae. Also, try a gluten-free diet as gluten can worsen inflammation, and add fiber and probiotics to your diet.

Note: Avoid inflammatory foods like processed meats, sugary drinks, trans fats, and processed snack foods.

Learn more about an anti-inflammatory diet. Click Now!

Take supplements Although it is considered preferable to consume nutrients through whole foods, there are certain supplements that can aid repigmentation in vitiligo patients. These include:

Ginkgo biloba Alpha lipoic acid Vitamin C Vitamin E Vitamin D

Meet all your nutritional requirements from our wide range of supplements. Fill Your Cart Now!

Vitiligo in kids: Tips for parents Children usually cope best with vitiligo better and your own over-consciousness as a parent may create more problems for your child than the actual vitiligo. Here are a few things to keep in mind:

Let your child know that vitiligo is not a serious skin problem Teach your child how to answer this/her friends, teachers, and relatives, if they inquire about vitiligo Communicate with close relatives, informing them about vitiligo and requesting them not to discuss it with your child Avoid discussing your child’s vitiligo repeatedly Examine the spots when your child is asleep Encourage your child to engage in any activities or hobbies that he/she loves Do not allow vitiligo to interfere with your child’s joy and self-esteem Help your child boost his/her self-confidence. Frequently Asked Questions When should I start worrying about my vitiligo? How does vitiligo spread? Is vitiligo painful? What is the outlook for vitiligo? Is vitiligo contagious or fatal? References Suryawanshi, Meghraj. (2020). INTRODUCTION TO VITILIGO AND ITS TREATMENT: A REVIEW. 1. 72-75. Vitiligo. Overview. National Health Services. Nov 2019. Ahmed Jan N, Masood S. Vitiligo. [Updated 2022 Aug 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-.Available from: What Causes Vitiligo? Vitiligo: Causes. American Academy of Dermatology Association. Jun 2022. Karelson M, Slim H, Salum T, Kõks S, Kingo K. Differences between familial and sporadic cases of vitiligo. J Eur Acad Dermatol Venereol. 2012;26(7):915-918. Willemsen, M., Melief, C. J., Bekkenk, M. W., & Luiten, R. M. (2020). Targeting the PD-1/PD-L1 Axis in Human Vitiligo. Frontiers in Immunology. Vitiligo. Overview Of Vitiligo. National Institute of Arthritis and Musculoskeletal and Skin Disorders. Dunlap R, Wu S, Wilmer E, et al. Pigmentation Traits, Sun Exposure, and Risk of Incident Vitiligo in Women. J Invest Dermatol. 2017;137(6):1234-1239. Henning SW, Jaishankar D, Barse LW, Dellacecca ER, Lancki N, Webb K, Janusek L, Mathews HL, Price RN Jr, Le Poole IC. The relationship between stress and vitiligo: Evaluating perceived stress and electronic medical record data. PLoS One. 2020 Jan 27;15(1):e0227909. Ghosh S. Chemical Vitiligo: A Subset of Vitiligo. Indian J Dermatol. 2020 Nov-Dec;65(6):443-449. Al Aboud DM, Gossman W. Wood’s Light. [Updated 2022 Sep 2]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: Kumar Jha A, Sonthalia S, Lallas A, Chaudhary RKP. Dermoscopy in vitiligo: diagnosis and beyond. Int J Dermatol. Kubelis-López DE, Zapata-Salazar NA, Said-Fernández SL, Sánchez-Domínguez CN, Salinas-Santander MA, Martínez-Rodríguez HG, Vázquez-Martínez OT, Wollina U, Lotti T, Ocampo-Candiani J. Updates and new medical treatments for vitiligo (Review). Exp Ther Med. 2021 Aug;22(2):797. Parsad D, Kanwar A. Oral minocycline in the treatment of vitiligo–a preliminary study. Dermatol Ther. 2010;23(3):305-307. Taneja, Atul & Kumari, Asha & Vyas, Kapil & Khare, AshokKumar & Gupta, Lalit & Mittal, AsitKumar. (2019). Cyclosporine in treatment of progressive vitiligo: An open-label, single-arm interventional study. Indian Journal of Dermatology, Venereology, and Leprology. 85. 10.4103/ijdvl.IJDVL\_656\_18. Bae JM, Jung HM, Hong BY, Lee JH, Choi WJ, Lee JH, Kim GM. Phototherapy for Vitiligo: A Systematic Review and Meta-analysis. JAMA Dermatol. 2017 July 1;153(7):666-674. Dillon AB, Sideris A, Hadi A, Elbuluk N. Advances in Vitiligo: An Update on Medical and Surgical Treatments. J Clin Aesthet Dermatol. 2017 Jan;10(1):15-28. Epub 2017 Jan 1. A. Janowska et al. Epidermal skin grafting in vitiligo: a pilot study. International Wound Journal ISSN 1742-4801. 2016. Mahajan VK, Vashist S, Chauhan PS, Mehta KIS, Sharma V, Sharma A. Clinico-Epidemiological Profile of Patients with Vitiligo: A Retrospective Study from a Tertiary Care Center of North India. Indian Dermatol Online J. 2019 Jan-Feb;10(1):38-44.

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Cuts and puncture wounds Also known as Injuries, Abrasions and Lacerations Overview Injuries caused by sharp objects that damage the skin and result in the exposure of underlying soft tissues are known as cuts and puncture wounds. The risk is high in children, elderly population and those who suffer from balance disorders such as Parkinson’s disease, cerebral palsy, ataxia, etc. Also, diabetics and immunocompromised patients need to be extra careful of cuts and wounds as they have higher risk of contracting an infection due to such wounds.

Cuts and puncture wounds are often accompanied by bleeding, pain, swelling, fever and infection. Minor cuts can be treated with simple home remedies, but a puncture wound, as it is deep, must always be treated by a doctor. If left untreated, it can lead to severe wounds or infection. If the cut is deep, it can even lead to chronic blood loss.

Whenever an injury occurs, ensuring basic first aid for cuts and puncture wounds is essential. If these wounds cannot be managed by first-aid alone, you must seek medical care. This involves use of painkillers, antibiotics and anti-inflammatory medicines along with surgical debridement and suturing of the wounds, in some cases. Key Facts Usually seen in Children between 1 to 10 years of age Adults above 60 years of age Gender affected Both men and women Body part(s) involved Skin Bones Soft tissues Nerves Blood vessels Mimicking Conditions Abrasions Bruises Burns Scalds Chronic skin ulcers Treatment Antibiotics: Amoxicillin, Cotrimoxazole & Ampicillin Antibacterial ointments: Amoxicillin, Clotrimoxazole & Ampicillin Normal saline infusion Paracetamol Specialists to consult General physician Emergency department physician Orthopedic and Trauma Surgeon Dermatologist Causes Of Cuts And Puncture Wounds

Cuts and puncture wounds are the injuries resulting from trauma caused by sharp objects. Such wounds damage the skin and cause a break in the continuity of the skin. More specifically, these can be described as below:

Cuts: These are the injuries occurring from clean, sharp-edged objects, such as knives, scissors, etc., or as a result of blunt trauma, such as an injury sustained after falling on a rocky surface, or hitting the edges of furniture, etc. These types of wounds typically have a larger surface area but are mostly superficial.

Puncture wounds: These refer to the injuries occurring from sharp objects, such as nails or needles. They typically have a smaller surface area but penetrate deeper.

Cuts and puncture wounds can occur in a variety of circumstances where a body part is at risk of sustaining an injury, such as: Falling and hitting yourself on sharp objects like rocks, furniture, tools, broken glass, etc. Walking without proper footwear on open roads or grounds where nails or other sharp objects may be lying around Not wearing protective gear while operating tools or heavy machinery Automobile accidents Self-infliction of injury Surgical incisions Did you know? In people with hemophilia, a small cut/injury can lead to incessant bleeding. Hemophilia is a rare bleeding disorder that affects the ability of the blood to clot. This condition causes the person to bleed for a long time due to deficiency of a clotting factor VIII or factor IX. This deficiency can cause recurrent bleeding into joints and muscles post an injury or surgery. Click To Know More Symptoms Of Cuts And Puncture Wounds

On sustaining an injury that leads to cuts and puncture wounds, immediate response and delayed response can take place. Immediate responses can lead to symptoms such as: Bleeding: At times, the bleeding can be minimal. In the case of larger cuts or puncture wounds or where soft tissues or blood vessels are also injured, there may be significant blood loss. Swelling: The area surrounding the wound becomes swollen, inflamed, and tender to touch. Pain: Depending on the severity of an injury and the structures involved, the intensity of pain ranges from mild to extremely severe. Difficulty in movement: Due to pain, swelling and bleeding, it becomes difficult to move or bear weight on the area injured. Delayed responses can lead to symptoms such as: Fever: If a wound that has not healed for long becomes infected, the body tries to fight off the infection, resulting in fever. Pus formation: It is a common occurrence in infected wounds. Pus refers to a collection of dead white blood cells that accumulate in the wound due to an ongoing infection. Chronic pain: Wounds that do not heal for a long time can cause chronic pain. Infection: Contaminated wounds, presence of foreign bodies in the wounds, diabetes, reduced immunity, and unclean dressings can lead to a wound being infected. Risk Factors For Cuts And Puncture Wounds

Although injuries can happen to anyone at any point in time, certain factors increase the chances of complications and serious injuries. These factors include:

Age: Children and elderly are more prone to cuts and puncture wounds. While children are often careless while playing outdoors, elderly may struggle with balance and coordination issues. They may also be more prone to falls. Hence, have a higher risk of sustaining cuts and puncture wounds.

Movement disorders: Patients suffering from movement disorders, such as Parkinson’s disease, cerebral palsy, ataxia, etc., are more prone to falls, thus having a higher risk of injuries.

Health conditions & low immunity: Diabetics are more prone to wound complications. If a diabetic patient sustains cuts and puncture wounds, it is more likely to get infected and healing may be delayed. Similarly, patients on chemotherapy or those who have got an organ transplant are prone to complications arising from simple cuts and puncture wounds because of their low immunity.

Psychological illnesses: People with certain psychological conditions such as borderline personality disorder, depression, anxiety disorders and post-traumatic stress disorder are more likely to be self-critical and thereby engage in self-injury.

Common sites for cuts and puncture wounds A few areas in the body are more prone to injuries than others. Cuts: The common sites of injuries include forehead, knees, elbows, hands, fingers and legs. Puncture wounds: The common sites of injuries include toes, feet, legs, fingers and hands. Diagnosis Of Cuts And Puncture Wounds

Mild cuts and puncture wounds need no investigation and often heal on their own. If the injury is severe or does not heal appropriately, doctors may order a few investigations/tests to evaluate in detail: Arterial and Venous Doppler Both Lower Limb, Arterial and Venous Doppler Both Upper Limb may be performed, depending on the site of injury in the case of puncture wounds with excessive blood loss to determine the blood insufficiency. X-ray to detect if a concurrent bony injury has occurred. Tests may include X-ray Right Ankle AP View, X-Ray Left Elbow AP View, etc. Complete Blood Count (CBC), Erythrocyte Sedimentation Rate, Total Leukocyte Count (TLC) and Differential Leukocyte Count (DLC) in cases of suspected wound infection. Glucose - Random Blood, Glucose - Fasting Blood to check for sugar control in diabetic patients. Culture sensitivity testing refers to identification of disease-causing microorganism, and to determine which antibiotics are sensitive to (effective against) the identified microorganism. It is usually recommended in case of severe infection. Celebs affected Ranveer Singh Bollywood actor Ranveer Singh suffered an injury on his face while shooting for the film ‘Gunday’ Specialist To Visit

Seek medical care if cuts and puncture wounds cannot be managed by first aid in the following situations: Excessive bleeding, spurting or bleeding that does not stop even after 10 minutes of applying pressure Very deep puncture wounds Presence of foreign bodies deep inside the wound Excessive pain Inability to move parts surrounding the wound Medical care is also required in cases where the wound gets infected after primary care at home. Signs of infection include: Pus formation or discharge from the wound Foul-smelling wounds Fever Increased redness and warmth around the wound Increased pain Doctors to consult in such situations: General physician Emergency department physician Orthopedic and Trauma surgeon Dermatologist Get a tetanus shot for cuts/bruises from a contaminated object/surface. Get a tetanus shot if you haven’t got one in the last 10 years. This is because cuts due to a rusty blade or knife can increase the risk of tetanus, which is a serious bacterial infection that can cause painful muscle spasms. So, if you have a deep cut or cut due to a rusty instrument, then getting a tetanus injection can protect you from infection. Get your shot! Treatment Of Cuts And Puncture Wounds

The treatment of cuts and puncture wounds depends on whether emergency care is essential or care for complicated wounds is required.

1. First-aid for cuts and puncture wounds Whenever an injury occurs, it is essential to administer basic first aid to the cuts and puncture wounds. After administering first aid, the decision may be made whether the wound can be managed at home or needs treatment by a doctor, depending on the severity of the wound.

The pointers given below should be followed when you administer basic first aid: Inspect the wound thoroughly and look for the presence of any foreign body, such as dirt, tin, stones, pieces of glass, etc. Carefully remove the foreign body if it is superficial, ensuring it does not increase the bleeding. If the foreign body is deeply embedded in the wound, do not try to remove it. Seek medical help. Assess the amount of bleeding and if the bleeding is excessive, immediately call for help. Try to stop the bleeding by applying pressure to the area and holding the area in an elevated position if possible. Once the bleeding is under control, gently but thoroughly clean the wound with an antiseptic liquid or sterile water. Apply a topical antiseptic cream and cover the area with a sterile bandage dressing. Inspect the dressing regularly to see if it gets soiled or wet, and change it as required. Monitor for signs of infection, such as fever, discharge from the wound, increased pain, etc.

1. Emergency treatment of cuts and puncture wounds Emergency treatment consists of: Stopping the bleeding. If the patient has lost excessive blood, intravenous transfusions with normal saline infusion or blood transfusion may be required. Surgical debridement and cleaning the wound in the case of heavily contaminated wounds, with extensive damage to surrounding soft tissues. Suturing the wound. Use topical antiseptic ointments while covering the wound with proper dressing Appropriate additional treatment for concomitant injuries. Tetanus toxoid TF injection is given if the patient has not taken a dose in the last 5 years. Painkillers, antibiotics and anti-inflammatory medicines are recommended to relieve pain, prevent infection and inflammation respectively.
2. Treatment for complicated cuts and puncture wounds If the wounds become infected, additional treatment to control the infection and promote healing is required. Paracetamol for relief from pain and fever. Antibiotics like amoxicillin, cotrimoxazole, ampicillin, azithromycin, and doxycycline can be given to prevent bacterial infection Antibacterial ointments like soframycin, mupirocin, neosporin, etc are used along with dressing to cover infected wounds Vitamin C and zinc supplements to promote rapid wound healing. Home-care For Cuts And Puncture Wounds

After appropriate first aid of cuts and puncture wounds, it is essential to take utmost care for faster healing without complications. Keep a close tab on any signs of infection such as fever or pus discharge from the wound. Change dressings at regular intervals. Once every day or more frequently if they get soiled. Wash hands thoroughly before tending to wounds. Use sterile bandages and antiseptic ointments only. Take ample rest. Do not move the part unnecessarily or exert undue pressure. Take a balanced diet rich in vitamins and protein to facilitate faster healing. ProTip: Keep your hand or leg elevated to stop bleeding. In most cases, bleeding due to minor cuts and scrapes usually stops on its own. However, if the bleeding fails to stop, then gently apply pressure on the wound to stop bleeding. Use a clean cloth/hand or bandage to apply the pressure. You can even elevate the area if the wound is in the leg or hand which can also help to reduce bleeding. Buy first aid supplies Complications Of Cuts And Puncture Wounds

If cuts and puncture wounds are left untreated, they may result in a variety of complications, such as: Excessive blood loss, leading to hypotension and vascular shock. Chronic wound infection may spread to other parts of the body, such as bones, and cause osteomyelitis. Formation of ugly hypertrophic scars and keloids. Loss of mobility in the affected area. Diabetic foot in patients with unregulated blood glucose levels. Amputation of the body part in case of severe untreated infection. Death due to excessive blood loss or from infection leading to septicemia. Alternative Therapies for Cuts And Puncture Wounds

There are not many alternative therapies that can effectively treat cuts and puncture wounds. Standard medical care remains the most effective choice in treating cuts and puncture wounds.

Certain alternative medicine forms are available and have been found to be effective in promoting rapid wound healing. These may include homeopathic preparations such as Calendula Officinalis which is applied topically as an ointment or used in the dressing as drops.

Minor cuts can be treated with simple home remedies, but a puncture wound, as it is deep, must always be treated by a doctor. Once bleeding is arrested, gently clean the area with a cotton swab dipped in antiseptic dilution. You can apply an antiseptic ointment like soframycin or even turmeric over the wound. Turmeric is an excellent antiseptic agent and can also help arrest bleeding. Keep the wound covered with a clean sterile bandage or leave it open after antiseptic application.

REMEMBER! Monitor for signs of infection such as increased swelling, pain, fever, etc. and if they occur, consult your doctor immediately. Frequently Asked Questions Do I need a tetanus injection every time I get injured? How to prevent diabetic foot occurrence after a toe injury? Should tight bandages be applied to stop bleeding from a wound? Should a wound be left open or covered with a dressing? How to prevent scar formation after a wound? References Wound Home Skills Kit: Lacerations and Abrasions. American College of Surgeons Division of Education. Cuts and Puncture Wounds. Medical Encyclopaedia, US National Library of Medicine. Wounds. Finnish Red Cross. Britto EJ, Nezwek TA, Robins M. Wound Dressings. StatPearls Publishing; 2021 Jan. Puncture Wounds. American College of Foot and Ankle Surgeons. Cuts and Grazes. NHS UK

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Vomiting Also known as Throwing up, Spewing, Retching, Puking, Barfing, Regurgitating, and Chundering Overview

Vomiting, or throwing up, is a forceful discharge of the contents of the stomach through the mouth. It isn’t a condition, but rather a symptom of many other conditions. While some of these conditions can be serious, most aren’t a cause for major concern. It can be a one-time event linked to something that doesn’t settle right in your stomach. However, recurrent vomiting may be caused by an underlying medical condition.

Every person experiences vomiting at least once in their lifetime. Causes of vomiting in adults can be the use of certain medicines, pregnancy, drinking too much alcohol, infections, a blockage in your bowel, and chemotherapy. In children, the causes include swallowing milk too rapidly, viral infections, intolerance to milk, and certain food allergies.

Recurrent vomiting can be due to some other health disorder that needs to be addressed and treated. Treatment or management mainly consists of avoiding known triggers of vomiting, drinking a lot of fluids to avoid dehydration, and taking antiemetic medications. Key Facts Usually seen in All age groups Gender affected Both male and female, but more common in women. Body part(s) involved Stomach Food pipe (Oesophagus) Mimicking Conditions Nausea Cyclic vomiting syndrome Necessary health tests/imaging Laboratory tests: Complete blood count (CBC) Serum electrolytes Erythrocyte sedimentation rate(ESR) Thyroid-stimulating hormone(TSH) Imaging tests: Abdominal radiography Computed tomography (CT) Abdominal ultrasonography (USG) Magnetic resonance imaging (MRI) Treatment Antiemetic drugs: Diphenhydramine Hydroxyzine Promethazine Prochlorperazine Metoclopramide Ondansetron Specialists to consult General physician Pediatrician Gastroenterologist Symptoms Of Vomiting

Vomiting is a common gastrointestinal complaint that can be triggered by a lot of stimuli and it is considered a defense mechanism against toxins, drugs, bacteria, viruses, and fungi that enter the body. Symptoms associated with vomiting include: Nausea Abdomen distension Diarrhea Fever Lightheadedness Vertigo Increased heart rate Excessive sweating Dryness of the mouth Decreased urination Chest pain Fainting Confusion Excessive sleepiness

Have you been vomiting quite frequently? Know what can cause vomiting and when to visit a doctor. Enlighten Yourself Now

Causes Of Vomiting

During vomiting, the major muscles in between the neck and stomach contract at the same time. This puts pressure on the stomach, expelling the contents in the stomach up the throat and through your mouth. The most common causes of vomiting include:

Gastroenteritis Acute viral gastroenteritis is an intestinal infection caused by various viruses. It is a major cause of vomiting. Other signs and symptoms include diarrhea, stomach cramps, nausea, and sometimes fever. Food poisoning If you eat food that is contaminated or stale, it can lead to food poisoning. It is caused due to multiplication of bacteria in the food which produces toxins in the body. Food poisoning commonly causes vomiting. Other symptoms include nausea, and stomach cramping, with or without diarrhea. Inner ear infections Also known as labyrinthitis, it can cause vomiting that is commonly accompanied by dizziness and a feeling of spinning (vertigo). Motion sickness Motion sickness is a sensation of throwing up while traveling by road, air, or sea. The movement of the vehicle causes turbulence as a result of which the inner ear loses its balance and causes nausea and vomiting.

Want to travel but scared of motion sickness? We have got you covered. Read some effective tips and tricks to avoid motion sickness. Click Here Pregnancy Pregnant women typically endure repeated episodes of nausea and vomiting, particularly during the first trimester of pregnancy called “morning sickness”.

Is a baby on the way? Pregnancy is a special and precious time for every woman. However, with so many changes happening in the female body, it comes with its own share of ups and downs. Here are 5 tips to make you easy to sail through your pregnancy. Click Here To Read Appendicitis Appendicitis is an inflammation of the appendix (a thin pouch that connects to the large intestine). This can cause pain that tends to move to the right or lower right side of the stomach. Nausea and vomiting are often associated with appendicitis. Gallstones Gallstones are hardened deposits of digestive fluid that can form in gallbladder (a small, pear-shaped organ on the right side of the abdomen that holds a digestive fluid called bile). Gallstones can lead to severe abdominal pain that can cause vomiting. Gastroesophageal reflux disease (GERD) It is a condition in which stomach acid repeatedly flows back into the tube connecting your mouth and stomach. This can lead to nausea and even vomiting in some cases.

Migraines These are a type of headaches that can cause severe throbbing pain or a pulsing sensation, usually on one side of the head. They are usually accompanied by nausea, vomiting, and extreme sensitivity to light and sound.

Struggling with migraine? Watch our expert, a leading neurologist decode it for you. Browse Here

Medications Nausea and vomiting are common side effects of many medications. These include antibiotics, vitamins, birth control pills, analgesics, and antidepressants. So talk to your doctor if you feel nauseated after taking any medications. He/she might consider changing the medications.

Chemotherapy Chemotherapy-induced nausea and vomiting (CINV) is a debilitating side effect of cancer treatment, affecting up to 40% of patients.

Concussion It is a traumatic brain injury that affects your brain function. It is of utmost importance to seek emergency care if you experience repeated vomiting or nausea after a head injury.

Crohn’s disease It is a type of inflammatory bowel disease (IBD) that causes swelling of the tissues in your digestive tract. It can cause a narrowing of the intestine that prevents food from normally traveling through the digestive tract, causing nausea and vomiting.

Other causes of vomiting These may include: Bowel obstruction Menstruation Excessive alcohol consumption Anxiety Intense pain Kidney infections and stones Irritable bowel syndrome (IBS) Food allergies Exposure to toxins

Did you know? Nausea and vomiting also occur in about 20-30% of postoperative patients as a complication of anesthesia. The term PONV is typically used to describe nausea and/or vomiting in the immediate 24 postoperative hours. Postdischarge nausea and vomiting (PDNV) refer to symptoms that occur after discharge for outpatient procedures.

Causes of vomiting in babies Common causes of vomiting in babies may include: Viral gastroenteritis Swallowing milk too quickly Food allergies Milk intolerance Urinary tract infections (UTIs) Middle ear infections Pneumonia Meningitis Ingesting toxic substances accidentally Congenital pyloric stenosis (a condition present at birth that causes narrowing of the passage between stomach and bowel) Blockages in the bowel.

Is your child vomiting? Here are some important things to remember when your child has one or multiple episodes of vomiting. Click To Read Diagnosis Of Vomiting

Vomiting can be a symptom of many causes, sometimes it can be as simple as indigestion and sometimes it can be due to an underlying disorder. Though the diagnosis of vomiting can be simple, its cause should not be neglected and every possibility must be evaluated. Diagnosis mainly consist of: 1. Medical history Past history is very important in determining the cause of vomiting. Questions such as onset duration and frequency, any chronic illness, the timing of vomiting, and associated symptoms must be asked to get a thorough understanding of the reason behind vomiting.

1. Physical examination The physical examination is focused initially on signs of dehydration, including, evaluation of fingers for calluses that are suggestive of self-induced vomiting.

Signs of depression or anxiety which may suggest psychiatric causes need to be evaluated.

Abdominal examination is extremely important as it can detect distention with a tenderness that can be suggestive of a bowel obstruction.

1. Laboratory tests Tests are directed by the history and physical examination to determine the underlying cause or to evaluate for the consequences of vomiting. These tests include: Complete blood count (CBC): It is done to diagnose any changes in blood cell count. Serum electrolytes: this test is done to check for acidosis (too much acid in the body fluids), alkalosis (excess base in body fluids), azotemia (build-up of nitrogen products in the blood), and hypokalemia ( deficiency of potassium in the blood) Erythrocyte sedimentation rate(ESR): To check for inflammation Pancreatic/liver enzymes: For patients with upper abdominal pain or jaundice Pregnancy test: In case of any female of childbearing age Protein/albumin: In patients with chronic organic illness or malnutrition Specific toxins: To check for any ingestion or use of potentially toxic medications Thyroid-stimulating hormone(TSH): For patients with signs of thyroid toxicity or unexplained nausea and vomiting.
2. Imaging tests Supine and upright abdominal radiography are done to check for small bowel or any other kind of obstruction.
3. Other tests Further testing may be needed to evaluate obstructions or any other cause. These tests may include:

Esophagogastroduodenoscopy Computed tomography (CT) Abdominal ultrasonography (USG) Magnetic resonance imaging (MRI) of the brain

Book your tests now to clear out every possible cause for your recurrent vomiting episodes. Click Here Celebs affected Kim Kardashian West Kim Kardashian is an American media personality, socialite, and businesswoman. She battled with morning sickness during pregnancy and said in an interview “It’s a very different type of pregnancy from my first one, but I’m so grateful to be pregnant when we didn’t even think it was going to happen for us, [so] I don’t care how sick I am.” Beyoncé Beyoncé is an American singer, songwriter, and actress. In an interview with Harper’s Bazaar, her best friend Gwyneth said “watching Queen Bey headline the Glastonbury Festival was special—and not only because of her performance. She was absolutely incredible, especially as she was barfing in between,” she told the magazine. Prevention Of Vomiting

The sequence before vomiting is nausea and when you begin feeling nauseous, there are a few steps you can take to potentially stop yourself from actually vomiting. The following tips that can prevent vomiting include:

Take deep breaths as soon as you begin to feel nauseous Drink plenty of water and other liquids Eat fresh or candied ginger or try ginger tea If you are prone to motion sickness, take an OTC (over-the-counter) medication to stop vomiting Suck on ice chips Avoid oily or spicy foods if you have indigestion Sit down or lie down with your head and back propped up Do not consume an excess of alcohol Do not sleep immediately after eating Avoid staring at screens while traveling Try to avoid any kind of activity when you feel nauseous

The most common cause of vomiting is a bad stomach. Up your stomach care game from our widest range of products that can take care of your stomach. Shop Now

Specialists To Visit

Vomiting can be caused due to several reasons. In case of frequent vomiting, doctors that can help you diagnose the exact cause and provide treatment include:

General physician Pediatrician (in case of children) Gastroenterologist

A gastroenterologist is a medical practitioner qualified to diagnose and treat disorders of the stomach and intestines.

When to see a doctor? It is essential to see a doctor in case of the following symptoms:

In children: Vomiting lasts more than a few hours Diarrhea and signs of dehydration are present Fever higher than 100 degrees Fahrenheit Your child hasn’t urinated for six hours

In adults: Blood in the vomit Severe headache along with stiff neck Fatigue Confusion and disorientation Severe abdominal pain Fever over 101 degrees Fahrenheit Diarrhea Rapid breathing or heart rate.

If you or your child have persistent vomiting, do not delay and get medical advice from our world-class doctors. Consult Now

Treatment Of Vomiting

The basic management of vomiting is to avoid any environmental triggers such as crowded places, odors, and heat. Also, treating the underlying cause is important to stop the episodes of vomiting.

However, nausea and vomiting can be very vigorous in individuals undergoing treatment for cancer, or who have undergone any kind of surgery. Treatment in such cases includes:

1. Antiemetic drugs Antiemetics are drugs used to combat nausea and vomiting. These work by blocking the pathways involved in vomiting. Most commonly used antiemetics include:

Scopolamine Diphenhydramine Hydroxyzine Promethazine Prochlorperazine Droperidol Metoclopramide Ondansetron

1. Newer agents These agents work by blocking the action of a chemical messenger (neurokinin) in the brain that may cause nausea and vomiting during anti-cancer treatment (chemotherapy). Aprepitant is the first of these agents to be introduced, but its efficacy is not yet established.

Note: Glucocorticoids (corticosteroids) such as dexamethasone are well-established antiemetics for chemotherapy-induced as well as postoperative nausea and vomiting.

Read more on dos and don’ts to follow while taking oral corticosteroids. Click Now

Home-care For Vomiting

Vomiting can be a one-time affair or can happen regularly due to various reasons. However, the feeling is not quite welcoming and can take a toll on the mind and the body. The first and foremost step is to keep yourself hydrated. The following tips should be kept in mind for the management of vomiting in children:

Avoid solid foods for up to 24 hours in case of persistent vomiting. Keep your child hydrated. Lay your child on their side to minimize the chance of them inhaling vomit into their airways. Do not try medications and alternative treatments without a doctor’s approval.

There are numerous tips to manage nausea and vomiting and some of the most effective home remedies include: Ginger (Adrak): Ginger is a widely used herb for its many natural medicinal properties and particularly as an antiemetic. Lemon (Nimbu): According to studies, 40% of women have used lemon scent to relieve nausea and vomiting, and 26.5% of them have reported it as an effective way to control their symptoms. Peppermint oil: It significantly reduces the frequency of nausea, vomiting, and retching. Fennel (Sauf): It refreshes the flavor of your mouth and helps stop vomiting. You can have it as it is or as fennel seeds tea. Cumin (Zeera): The powder and seeds of cumin are known to be effective in relieving nausea and vomiting. Cinnamon (Dalchini): It helps to reduce menstrual bleeding, nausea, and vomiting. Studies also showed significant improvements in gastrointestinal symptoms with cinnamon.

Feeling nauseated? Try these 6 foods to get instant relief. Read More Now

Complications Of Vomiting

In most cases, nausea and vomiting might clear up on their own unless there is an underlying chronic condition. Persistent vomiting can lead to the following complications:

Dehydration: May be caused by failure to replace obligate water losses and the most common causes are vomiting, diarrhea, sweating, etc.

Loss of enamel: Studies demonstrate that self-induced vomiting can lead to the erosion of the outer layer of teeth (enamel). Alternative Therapies For Vomiting

Nausea and vomiting are distressing symptoms that may significantly detract from the overall quality of life and greatly influence an individual’s overall mood and social activities. Chronic vomiting can also be managed with alternative therapies that have shown some good results. These therapies include: 1. Acupuncture and acupressure Acupuncture and acupressure are two techniques commonly used to manage chronic vomiting. During acupuncture, a therapist inserts thin needles into specific points on the body. Acupressure aims to stimulate the same points of the body but uses pressure instead of needles to do so. Both techniques stimulate nerve fibers, which transmit signals to the brain and spinal cord and some believe these signals can decrease nausea.

1. Aromatherapy therapy This type of therapy may help relieve nausea and vomiting, although studies on its effectiveness are mixed. To practice aromatherapy, try deep breathing with an open essential oil bottle, or an essential oil diffuser, or add a few drops to a cotton ball. If you have asthma or another respiratory condition, ask your doctor before diffusing essential oils.

Buy essential oil products online to get rid of the unwelcoming feeling of nausea and vomiting. Fill your cart now. Tap Here

1. Traditional Chinese medicine (TCM) According to TCM, vomiting is a manifestation of impaired homeostasis and reversed upward qi (in Chinese philosophy, qi, is the life force that every person and thing has) flow within the stomach, resulting in the expulsion of the stomach’s contents through the mouth.

This alternative therapy involves a variety of therapeutic techniques and the key to treatment lies in harmonizing the stomach and diminishing qi counter flow. Frequently Asked Questions What is the difference between nausea and vomiting? What is cyclic vomit syndrome? What foods should be avoided during vomiting? Which position is best in case of vomiting? Can vomiting cause sore throat? Why does Vomiting Occur? References Zhong W, Shahbaz O, Teskey G, Beever A, Kachour N, Venketaraman V, Darmani NA. Mechanisms of Nausea and Vomiting: Current Knowledge and Recent Advances in Intracellular Emetic Signaling Systems. Int J Mol Sci. 2021 May 28;22(11):5797. Stuempfig ND, Seroy J. Viral Gastroenteritis. [Updated 2022 Jun 21]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: Islam S et al. Post-Operative Nausea And Vomiting (PONV): A Review Article. Indian J. Anaesth. 2004: PONV : A REVIEW; 48 (4): 253-258 Pepper GV, Craig Roberts S. Rates of nausea and vomiting in pregnancy and dietary characteristics across populations. Proc Biol Sci. 2006 Oct 22;273(1601):2675-9 Argudín MÁ, Mendoza MC, Rodicio MR. Food poisoning and Staphylococcus aureus enterotoxins. Toxins (Basel). 2010 Jul;2(7):1751-73. K. Gupta et al. Chemotherapy-Induced Nausea and Vomiting: Pathogenesis, Recommendations, and New Trends. Cancer Treatment and Research Communications 26 (2021) 100278. Scorza K et al . Evaluation of Nausea and Vomiting. American Family Physician. July 1, 2007.Volume 76, Number 1. Ibrahim. Nausea and Vomiting in Cancer Patients: Topic Review. J Palliat Care Med 2015, 5:1. Becker DE. Nausea, vomiting, and hiccups: a review of mechanisms and treatment. Anesth Prog. 2010 Winter;57(4):150-6; quiz 157. Andrews PLR, Cai W, Rudd JA, Sanger GJ. COVID-19, nausea, and vomiting. J Gastroenterol Hepatol. 2021 Mar;36(3):646-656. Lete I, Allué J. The Effectiveness of Ginger in the Prevention of Nausea and Vomiting during Pregnancy and Chemotherapy. Integr Med Insights. 2016 Mar 31;11:11-7. Yavari Kia P, Safajou F, Shahnazi M, Nazemiyeh H. The effect of lemon inhalation aromatherapy on nausea and vomiting of pregnancy: a double-blinded, randomized, controlled clinical trial. Iran Red Crescent Med J. 2014 Mar;16(3):e14360. Zobeiri M, Parvizi F, Shahpiri Z, et al. Evaluation of the Effectiveness of Cinnamon Oil Soft Capsule in Patients with Functional Dyspepsia: A Randomized Double-Blind Placebo-Controlled Clinical Trial. Evid Based Complement Alternat Med. 2021;2021:6634115. Published 2021 May 13. Taylor K, Jones EB. Adult Dehydration. [Updated 2022 Oct 3]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from:

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Cervical cancer Overview Cervix is the lowermost part of the womb (uterus) that lies on top of the vagina. It plays an important role in preventing the ascent of pathogens from the vagina into the uterus and allowing the entry of sperm into the fallopian tubes (channel for transport of eggs and fertilization). It is also crucial for the maintenance of pregnancy in the uterus until the onset of labor.

Cervical cancer is a type of cancer that occurs in the cells of the cervix. This cancer can affect the deeper tissues of the cervix and may spread to other parts of the body (metastasize), often the lungs, liver, bladder, vagina, and rectum.

This cancer is the second most common female malignant (cancerous) tumor globally which seriously threatens female’s health. Nearly all cervical cancers are caused by an infection with human papillomavirus (HPV).

Some cases may not show any symptoms, but general symptoms include bleeding in between periods and after sexual intercourse. Foul-smelling white discharge and low back pain or lower abdominal pain may also be present. Treatments include surgery, radiation, chemotherapy, and palliative care. Key Facts Usually seen in Women between 15-44 years of age Gender affected Women Body part(s) involved Cervix Vagina Uterus Badder Rectum Kidneys Lungs Breast Liver Prevalence India: 6-29% (2016) Mimicking Conditions Cervical fibroids Endometriosis Cervical polyps Necessary health tests/imaging Pap smear Liquid-based cytology (LBC) HPV testing Colonoscopy Biopsy Imaging: CT scan & PET scan Treatment Surgical procedures: Conization, Hysterectomy & Loop electrosurgical excision procedure (LEEP) Radiation therapy: External-beam radiation therapy & Internal-beam radiation therapy Chemotherapy: Cisplatin & Cisplatin with 5-fluorouracil (5-FU) Targeted therapy: Bevacizumab & Tisotumab vedotin See All Types Of Cervical Cancer

Cervical cancers and cervical pre-cancers are classified based on their appearance on a microscope. They are most commonly of two types: Squamous cell carcinoma It is the most common type (80% to 90%). These cancers develop from the outer cells of the cervix (exocervix). Squamous cell carcinomas most often begin in the transformation zone (where the outer cells join the inner cells of the cervix). Adenocarcinomas This is the other type (10% to 20%) that develop from the mucus-producing gland cells of the inner cells of the cervix (endocervix).

Less commonly, cervical cancers have features of both squamous cell carcinomas and adenocarcinomas and are called adenosquamous carcinomas or mixed carcinomas. Here’s more on the common signs of cancer. Click Here! Symptoms Of Cervical Cancer

Cervical cancer symptoms are usually mild in the early stages and can go unnoticed. Symptoms according to the stage of cancer include: Early or stage 1 cervical cancer In the early stages of cervical cancer, a person may experience no symptoms at all. Some of the signs and symptoms of stage 1 cervical cancer can include: Watery or bloody vaginal discharge Foul odor in the vaginal discharge Vaginal bleeding after sexual intercourse Bleeding in between menstrual periods Longer and heavier menstrual periods Bleeding post menopause Discomfort during sexual intercourse Advanced cervical cancer If there is a spread of cancer (metastasis) to nearby tissues or organs, symptoms may include: Blood in urine Diarrhea Fatigue Weight loss Loss of appetite General feeling of being ill Dull and aching pain in the back Swelling in the legs Pelvic/abdominal pain Difficulty or pain during urination Pain or bleeding from your rectum while passing the stool

Note: It can take almost 20 years for the precursor lesion caused by sexually transmitted HPV to develop into an invasive form of cervical cancer.

Learn what the experts have to say about cervical cancer. Causes Of Cervical Cancer

Almost all cervical cancers are caused by sexually transmitted human papillomavirus (HPV). This is the same virus that causes genital warts. There are more than 1000 strains of human papillomavirus, but only certain types can cause cervical cancer. The two types that most commonly cause cancer are HPV-16 and HPV-18.

The major mechanisms through which HPV contributes to cancerous activity involve the viral oncoproteins, E6 and E7, which interfere with major tumor suppressor genes (P53 and retinoblastoma). In addition, E6 and E7 have been associated with changes in host and viral DNA.

Most people will get HPV at some point in their lives and not realize it as the body fights against the infection. However, if the body fails to fight this infection, it can cause the cells of your cervix to change to cancerous cells. HPV can spread from the following: Any direct skin-to-skin contact of the genitals Vaginal, anal, or oral sex Sharing sex toys Did you know? Being infected with a cancer-causing strain of HPV doesn’t mean you’ll get cervical cancer. Your immune system eliminates the vast majority of HPV infections, often within 2 years. Read about different types of HPV. Click Now! Risk Factors For Cervical Cancer

A number of risk factors for cervical cancer are linked to exposure to HPV. High-risk types, especially HPV16, are prevalent in the human population, and infection is usually transmitted by sexual contact, causing squamous intraepithelial lesions. Most lesions disappear after 6−12 months due to the intervention from the immune system. However, a small percentage of these lesions remain and can cause cancer. There are also other numerous risk factors for cervical cancers which include: Human immunodeficiency virus (HIV) infections According to studies, the risk of developing an infection from high-risk HPV types is higher in women with HIV. The results showed a relationship between HIV and cervical cancer that suggested a higher rate of persistent HPV infection with multiple viruses with cancerous activity, among people with HIV. Multiple sexual partners Many studies have suggested that women with multiple sexual partners are at high risk for HPV acquisition and cervical cancer. Multiple sexual partners of the spouse can also be an additional risk factor. Excessive use of oral contraceptives Oral contraceptive (OC) pills are known to be a risk factor for cervical cancer. It has been reported in a study that the use of OC for 5 years or more can double the risk of cancer. In addition, the use of OC pills is an associated risk for developing cervical cancer, especially adenocarcinoma. Smoking Smoking increases the chance of developing precancerous lesions of the cervix (called moderate or severe dysplasia) and increases the chance of developing cervical cancer. Smoking greatly increases your risk for dysplasia and cancer, and weakens the immune system, increasing the chances of getting affected by HPV.

In addition to increasing the risk of cervical cancer, smoking can lead to premature pregnancy, ectopic pregnancy and also affect reproductive health. Here’s more on smoking can affect women’s health. Click To Read!

Hygiene patterns Several genital hygiene patterns showed an association with cervical cancer. Not using a sanitary napkin, not maintaining vaginal hygiene, and not taking special care in cleaning their genitals when washing increases the risk of infections. Lack of particular care in cleaning the genitals can increase he risk of cervical cancer by 5.6 times. Weak immune system Having a weakened immune system caused by immunosuppression increases the risk of HPV infection and cervical cancer. Immunosuppression weakens the body’s ability to fight infection and other diseases. Did you know? Early age (below 18 years) of first intercourse and multiple child births are also risk factors for cervical cancer. Awareness is the key to preventing cervical cancer. Understand more about cervical cancer- detection and prevention. Click To Read More! Diagnosis Of Cervical Cancer

Early stages of cervical cancer don’t usually involve symptoms and are hard to detect. The first signs of cervical cancer may take several years to develop. The International Federation of Gynecology and Obstetrics (FIGO) classified cervical cancer stages into the following:

Stage 0: Also known as carcinoma in situ, it is the presence of abnormal cells in the innermost lining of the cervix.

Stage I: Invasive form of cancer that is only confined to the cervix. Stage Ia cervical carcinoma: Preclinical invasive carcinoma that can be diagnosed only by means of microscopy. Stage Ib cervical carcinoma: Clinically visible lesion that is confined to the cervix uteri. Stage Ib1: Primary tumor not greater than 4.0 cm in diameter. Stage Ib2: Primary tumor greater than 4.0 cm in diameter.

Stage II: The locally limited spread of cancer beyond the uterus but not to the pelvic sidewall or the lower third of the vagina. Stage IIa cervical carcinoma: Spread into the upper two-thirds of the vagina without parametrial (the fat and connective tissue that surrounds the uterus) invasion. Stage IIb cervical carcinoma: Extension into the parametrium but not into the pelvic sidewall.

Stage III: Cancerous spread to the pelvic sidewall or the lower third of the vagina, and/or hydronephrosis or a non-functioning kidney that is incident to invasion of the ureter. Stage IIIa cervical carcinoma: Extension into lower one-third of the vagina, without spread to the pelvic sidewall. Stage IIIb cervical carcinoma: Extension into the pelvic sidewall and/or invasion of the ureter, with the latter resulting in a non-functioning kidney or hydronephrosis.

Stage IV: Cancerous spread beyond the true pelvis or into the mucosa of the bladder or rectum. Stage IVa cervical carcinoma: Extension of the tumor into the mucosa of the bladder or rectum. Stage IVb cervical carcinoma: Spread of the tumor beyond the true pelvis and/or by metastasis into distant organs.

Finding abnormal cells during cervical cancer screenings is the best way to avoid cervical cancer. Cervical cancer diagnosis requires the following: A physical exam and complete medical history Examining the whole body to check general signs of health, including checking for any signs of disease like lumps or anything unusual. Past medical history, patient’s health habits, and prior illnesses and treatments will also be taken. Pelvic exam An exam of the vagina, cervix, uterus, fallopian tubes, ovaries, and rectum is done. A speculum is inserted into the vagina and the doctor or nurse looks at the vagina and cervix for signs of disease. A pap test of the cervix is usually done. The doctor or nurse also inserts a lubricated, gloved finger into the rectum to feel for lumps or abnormal areas. Traditional pap smear A pap smear, also called a pap test, is a procedure to test for cervical cancer in women. It involves collecting cells from your cervix.

Here’s everything you need to know about pap smear. Click To Read!

Liquid-based cytology (LBC) Liquid-based cytology (LBC) is a new method of preparing cervical samples for cytological examination and unlike the conventional ‘smear’ preparation, it involves making a suspension of cells from the sample and this is used to produce a thin layer of cells on a slide. Visual inspection with acetic acid & Lugol’s iodine (VIA/VILI) Visual inspection with acetic acid (VIA) is a visualization of a woman’s cervix to detect precursors of cervical cancer after application of acetic acid (ordinary table vinegar) on her cervix. Healthcare workers (midwives, nurses, and clinical officers) can practice VIA at several levels of healthcare settings. HPV testing The HPV test is a screening test for cervical cancer, but it doesn’t confirm if an individual has cancer, instead, the test detects the presence of HPV, the virus that causes cervical cancer, in the system.

HPV-based testing is a pivotal part of cervical cancer screening besides cytology-based tests.

The application of HPV detection has accelerated the transition of cervical cancer screening from morphology to molecular biology. Computerized screening Because human fatigue and error may be major contributors to false-negative readings of Pap smears, computer-assisted image analysis, and artificial intelligence have been introduced as a means of improving the sensitivity of the Pap smear.

Artificial intelligence (AI) has also shown promising results in screening and examination based on image pattern recognition. Endocervical curettage This is a procedure to collect cells or tissue from the cervical canal using a curette (spoon-shaped instrument). Tissue samples are taken and checked under a microscope for any signs of cancer. Colposcopy A procedure in which a colposcope (a lighted, magnifying instrument) is used to check the vagina and cervix for abnormal areas. Tissue samples may be taken using a curette (spoon-shaped instrument) or a brush and checked under a microscope for signs of disease. Biopsy This is done if the pap smear shows any abnormal cells. A sample of tissue is cut from the cervix and viewed under a microscope by a pathologist to check for signs of cancer. Imaging These tests help doctors find out where the cancer is located and whether it has spread to other parts of the body. They include:

1. Computed tomography (CT) scan: It involves taking pictures of the cervix at specific times after the intravenous (IV) injection of contrast medium to find out exactly where the tumor is in relation to nearby organs and blood vessels.
2. Positron emission tomography (PET) scan or PET-CT scan: A PET scan is usually combined with a CT scan or MRI scan to produce images of the inside of the body. The combination provides a more complete picture of the area being evaluated.

Women’s cancer awareness package is a group of tests clubbed together to detect cancer markers in women. Get your lab tests done by our professionals in the comfort and safety of your house. Book Now! Celebs affected Sonia Gandhi Sonia Gandhi is an Indian politician and the president of the Indian National Congress. In August 2011, she underwent successful surgery for cervical cancer in the United States. Erin Andrews Erin Jill Andrews is an American sportscaster, television personality, and actress. She was diagnosed with cervical cancer in 2016 and credits the experience for making her more vigilant about her health. Prevention Of Cervical Cancer

There are more than 100 kinds of HPV and about a dozen of them have been shown to lead to cancer. The two most important things to prevent cervical cancer are to get the HPV vaccine and to get tested regularly according to American Cancer Society (ACS) guidelines. These include: Undergoing cervical screening Early detection of the types of HPV that can cause cancer is key in preventing cervical cancer. A well-proven way to prevent cervical cancer is to have screening tests. Screening is having tests to find conditions that may lead to cancers and can find pre-cancers before they can turn into invasive cancer. Finding precancerous lesions through regular screening can limit the cases of cervical cancer to a greater extent. Getting HPV vaccine The HPV vaccine can help prevent HPV infection by protecting against HPV. Vaccines are available that can help protect children and young adults against certain HPV infections.

These vaccines only work to prevent HPV infection and will not treat an infection that is already there. These vaccines help prevent pre-cancers and cancers of the cervix. Some HPV vaccines are also approved to help prevent other types of cancers and anal and genital warts.

Note: India accounts for around 16% of the total deaths caused by cervical cancer across the world. And it can be prevented with a vaccine.

Learn more about vaccine to prevent cervical cancer: age, types, schedule & more. Tap To Read!

Limiting exposure to HPV HPV is passed from one person to another during skin-to-skin contact with an infected area of the body. Although HPV can be spread during skin-to-skin contact; vaginal, anal, and oral sex doesn’t have to occur for the infection to spread. It is even possible for a genital infection to spread through hand-to-genital contact.

Also, HPV infection seems to be able to spread from one part of the body to another. This means that an infection may start in the cervix and then spread to the vagina and vulva.

HPV exposure can be limited by: Encouraging the partners to talk with a doctor or nurse about the HPV vaccine Not having sex when there are visible warts Limiting the number of sex partners Avoiding sex with people who have had many other sex partners Not having unprotected sex Some methods used to prevent sexually transmitted diseases (STDs) decrease the risk of HPV infection. The use of a barrier method of birth control such as a condom, and dental dams during oral, anal, and vaginal sex can help protect against HPV infection. Maintaining a healthy lifestyle There are a lot of cancer prevention clinical trials that aim to find out whether actions people take can prevent cancer. These may include eating fruits and vegetables, exercising, quitting smoking, or taking certain medicines, vitamins, minerals, or food supplements. Specialist To Visit

Every kind of cancer requires comprehensive care that consists of a group of doctors. Doctors that take care of patients with cervical cancer and help in diagnosing and formulating a treatment plan are: Gynecologist Gynecologic oncologist Radiation oncologist Medical oncologist

A gynecologist specializes in female reproductive health. Gynecologic oncologists are specialists in cancers of the female reproductive system and can perform surgery and prescribe chemotherapy and other medicines. A radiation oncologist is a doctor who uses radiation to treat cancer whereas a medical oncologist uses chemotherapy and other medicines to treat cancer.

What to ask your doctor? What type of cervical cancer do I have? Has my cancer spread outside the cervix? What is the stage of my cancer and what does that mean? Will I need other tests before we can decide on treatment? Do I need to see any other doctors or health professionals?

Get all your queries answered by our trusted professionals. Consult Now! Treatment Of Cervical Cancer

Different types of treatment are available for patients with cervical cancer. They include: A. Surgical procedures Surgery is the removal of the tumor and some surrounding healthy tissue during an operation. Surgical procedures opted for cancer that has not spread beyond the cervix include:

1. Conization: A procedure in which a cone-shaped piece of abnormal tissue is removed from the cervix. A scalpel, a laser knife, or a thin wire loop heated by an electric current may be used to remove the tissue.
2. Hysterectomy: A hysterectomy is a surgical procedure to remove the womb (uterus). A hysterectomy can be: Simple hysterectomy: It is the removal of the uterus and cervix. Radical hysterectomy: It is the removal of the uterus, cervix, upper vagina, and the tissue around the cervix. A radical hysterectomy also includes the removal of the surrounding lymph nodes.
3. Loop electrosurgical excision procedure (LEEP): This procedure uses a wire loop heated by an electric current to remove cells and tissue in the cervix and vagina. It is used as part of the diagnosis and treatment for abnormal or cancerous conditions.
4. Exenteration: This surgery is done if cancer has come back within the pelvis (the lowest part of your tummy, between your hips). This procedure removes the cervix, uterus, and ovaries.
5. Radical trachelectomy: It is a surgery to remove the cervix, nearby tissue and lymph nodes, and the upper part of the vagina. It can be used to treat women with early-stage cervical cancer to preserve their fertility. After the cervix is removed, the uterus is attached to the remaining part of the vagina.
6. Bilateral salpingo-oophorectomy: This is a surgical procedure to remove both the ovaries and fallopian tubes. It is done at the same time as a hysterectomy. B. Radiation therapy Uses high-energy x-rays or other particles to destroy cancer cells. Radiation therapy may be given alone, before surgery, or instead of surgery to shrink the tumor. The types of radiation therapy include: External-beam radiation therapy: The most common type of radiation in which the radiation is given from a machine outside the body. Internal-beam radiation therapy: When radiation treatment is given using implants, it is called internal radiation therapy or brachytherapy. Brachytherapy involves the application of a radioactive source in close proximity to the tumor.

Note: For the early stages of cervical cancer, a combination of radiation therapy and low-dose weekly chemotherapy is often used. This is done to increase the effectiveness of the radiation treatment. C. Chemotherapy Chemotherapy is the use of drugs to destroy cancer cells, usually by keeping the cancer cells from growing, dividing, and multiplying of cells.

For people with cervical cancer, chemotherapy is often given in combination with radiation therapy (concurrent chemoradiation). The chemo helps the radiation work better. Options for concurrent chemoradiation include: Cisplatin: This drug is given weekly during radiation. This drug is given into a vein (IV) before the radiation appointment. Cisplatin with 5-fluorouracil (5-FU): This combination is given every 3 weeks during radiation.

The chemo drugs most often used to treat cervical cancer that has come back or metastasized include: Cisplatin Carboplatin Paclitaxel Topotecan D. Targeted therapy In this treatment, specific genes, proteins, or the tissue environment that contributes to cancer growth and survival are targeted. This type of treatment blocks the growth and spread of cancer cells and limits damage to healthy cells.

For recurrent or metastasized cervical cancer, platinum-based chemotherapy combined with the targeted therapy is used. Targeted therapy uses the following: Bevacizumab Bevacizumab-awwb Bevacizumab-bvzr Tisotumab vedotin E. Immunotherapy This therapy uses the body’s natural defenses to fight cancer by improving your immune system’s ability to attack cancer cells.

The immune checkpoint inhibitor pembrolizumab is used to treat cervical cancer that has recurred or metastasized during or after treatment with chemotherapy. It may also be used with chemotherapy with or without bevacizumab in people with recurrent or metastatic cervical cancer. Did you know? Every 8 minutes, 1 woman dies of cervical cancer in India. Read about things you must know about cervical cancer. Click Here! Home-care For Cervical Cancer

The news of cervical cancer can be devastating. Cancer not only affects the body but has a serious effect on the mind as well. Some of the things that the patients can do at home that can help manage the symptoms of treatment include:

Taking enough rest post any surgical procedure Being physically active Quitting smoking Getting emotional support from loved ones Following all the instructions given by doctors Eating a well balanced and nutritious diet Adding nutritional supplements to the diet Taking to a counselor Adopting a healthy behavior Avoiding sex for 6-8 weeks after hysterectomy Tips for caregiver There are numerous resources available for the patient and their family, battling with cervical cancer. Tips that the caregivers can follow to help the patient in the difficult times include: Encouraging and providing mental support to the patient Understanding the course of treatment Helping the patient manage their symptoms and side effects Coordinating their medical appointments and giving medications on time Assisting the patient in maintaining personal care and hygiene Talking with empathy and positive attitude to the patient Helping the patients with household chores Handling insurance and billing issues for them

Cervical cancer diagnosis can lead to chronic stress. With so much to take care of, one often finds it hard to cope with situations that are beyond control. Read about effective ways to manage chronic stress. Tap Now! Complications Of Cervical Cancer

Cervical cancer complications are seen in advanced disease and associated treatments and are similar to other cancers. They may include:

Renal failure: Kidney involvement typically occurs in the more advanced stages of cervical cancer. Kidney failure in cervical cancer can often be associated with blockage of the ureters. Hydronephrosis: It is the swelling of a kidney due to a build-up of urine. It represents an advanced disease in patients with cervical cancer as it indicates the involvement of the parametria. Pain: It is seen when cancer progresses and spreads to nearby tissues and organs. The patient may experience pain in the pelvis or have issues urinating. Lymphedema: It refers to tissue swelling caused by an accumulation of protein-rich fluid that’s usually drained through the body’s lymphatic system. Lymphedema is usually seen as a result of treatment involving pelvic radiotherapy or lymph node removal. Blood clots: Like any other cancer, cervical cancer can make the blood thicker leading to the formation of blood clots. Large cervical tumors can also put pressure on the veins in the leg, helping clots to form. Fistulas: A fistula is an abnormal connection between two body parts, such as an organ or blood vessel and another structure. Vaginal fistulas are the most common type of fistula in patients with cervical carcinoma Orbital apex syndrome (OAS) and blindness: OAS involves damage and dysfunction of the optic nerves. This occurs in rare cases where cancer spreads to the eye. It is seen in the malignant mixed Mullerian tumor which is a rare uterine and cervical carcinoma and accounts for <5% of uterine cancers.

The COVID-19 pandemic has led to a substantial reduction in preventive healthcare, including HPV vaccinations and cervical cancer screenings, which can lead to complications and an increased number of cervical cancer cases. Read about COVID! Alternative Therapies For Cervical Cancer

When considering alternative and complementary treatments for cervical cancer, it is very important to communicate with your medical teams as some of the alternative therapies may be contraindicated from the treatment plan. Alternative approaches, used by patients include: Naturotherapy Advocating a holistic approach to using plant-derived nutritional chemicals in the treatment of cervical cancer can be very beneficial. Naturotherapy may not replace the conventional treatment regimen, but it may enhance the efficacy of chemotherapy and radiotherapy. Some of the natural herbs include: Curcumin or turmeric (haldi) Ginger root (adrak ki jadh) Holy basil (tulsi) Green tea Grapes Broccoli Banana Cabbage Homeopathy Homeopathy claims to stimulate healing responses to diseases by administering substances that mimic the symptoms of those diseases in healthy people. As far as therapeutic medication is concerned, several well-proved remedies are available for cervical cancer symptoms treatment which include: Iodum Kreosotum Natrum carb Carbo animalis Thuja Calcarea flour Hydrocotyle Sabina Calcarea carb Kali iodide Sulphuric acid Conium Hydrastis Sanguinaria Phosphorous Lachesis Acupuncture One of the most distressing and intractable conditions in patients with cancer is pain. It has been reported that about 20% to 30% of cancer patients bear a variety of levels of pain.

Acupuncture is recommended for patients to control cancer pain. Previous studies have reported that it not only has beneficial efficacy for cancer pain management but also almost has no adverse events for patients with cancer pain. However, more research is required to specifically explore the effectiveness of acupuncture at pain acupoints for cervical cancer pain. Living With Cervical Cancer

Cancer and its treatment not only causes physical symptoms and side effects, it also has emotional, social, and financial effects. Managing all of these effects is how patients and their families can survive this hardship. For some women, cancer may never go away completely. And they may get regular treatments. Learning to live with cancer that does not go away can be difficult and very stressful. Here are a few tips to manage it: Give importance to palliative care Palliative care focuses on improving how you feel during treatment by managing symptoms and supporting patients and their families with other, non-medical needs. Palliative care along with treatment for cancer has shown greater results with less severe symptoms, a better quality of life, and more satisfaction with treatment. Palliative treatments vary widely and often include: Medication to relieve the symptoms Nutritional changes Relaxation techniques Emotional and spiritual support Encouraging the patient to do things they love Follow-up regularly For some women with cervical cancer, treatment may remove or destroy cancer, but the patient is always under the fear that cancer might come back. It’s important to let your doctor know about any new symptoms or problems because they could be caused by cancer coming back or by a new disease or second cancer.

Most doctors recommend that women treated for cervical cancer keep getting regular pap tests no matter how they were treated (surgery or radiation). Survivors of cervical cancer should be vigilant for early detection of any other cancer, such as breast, lung, and colorectal cancer. Imaging tests may be done if the signs or symptoms of cancer come back. Manage the physical symptoms of advanced cancer Advanced cervical cancer means cancer that has spread to other areas of your body such as the liver or lungs. Unfortunately, advanced cancer can’t usually be cured. But treatment can often control cancer and relieve symptoms. Things to keep in mind include: Talk to the doctors and healthcare team regularly Inform the doctor about new side effects or changes in existing side effects Inform the healthcare team about the new symptoms so that they can potentially keep them from worsening Get treatment for long-term symptoms Coping with tiredness

Walking may improve quality of life for people with advanced cancer. The American Cancer Society recommends brisk walking for at least 150 minutes or any vigorous-intensity activity for 75 minutes for every adult each week to stay healthy. Read how wailing can help you if you have cancer. Click Now!

Focus on emotional and mental wellbeing Lots of information and support is available for family and friends of patients with cervical cancer. Some people find it helpful to find out more about their cancer and the treatments they might have. Fear and anxiety can be managed. Talking about advanced cancer Sharing feelings with close family members and friends Getting all the information needed to go about with the treatment Understanding the physical limitations Managing the sexual relationship by talking to the partner Coping with practical issues like financial expenses, child care and work issues Supervise the cost of cancer care Cancer treatment can be expensive and coping financially can become a source of stress and anxiety for patients and their families. In addition to treatment costs, there might be extra unplanned expenses as well. This can stop many patients from continuing the treatment. This can be managed by asking the social worker about benefits or grants, they can also help with the claiming process. Frequently Asked Questions How common is cervical cancer in India? What changes are seen in the body if one has cervical cancer? What is cervical cancer pain like? Can one feel cervical cancer with the finger? Is cervical cancer usually curable? References Basic Information About Cervical Cancer. Cervical Cancer. Center for Disease Control And Prevention. Dec 2021. Zhang S, Xu H, Zhang L, Qiao Y. Cervical cancer: Epidemiology, risk factors and screening. Chin J Cancer Res. 2020 Dec 31. What Is Cervical Cancer? About Cervical Cancer. American Society of Cancer. Kashyap N, Krishnan N, Kaur S, Ghai S. Risk Factors of Cervical Cancer: A Case-Control Study. Asia Pac J Oncol Nurs. 2019 Jul-Sep. International Collaboration of Epidemiological Studies of Cervical Cancer, Appleby P, Beral V, et al. Cervical cancer and hormonal contraceptives: collaborative reanalysis of individual data for 16,573 women with cervical cancer and 35,509 women without cervical cancer from 24 epidemiological studies. Lancet. 2007. Panagiotis Tsikouras1, Stefanos Zervoudis, et al. Cervical cancer: screening, diagnosis and staging. JBUON 2016; 21(2). Ronco G, Cuzick J, Pierotti P, Cariaggi MP, Dalla Palma P, Naldoni C, Ghiringhello B, Giorgi-Rossi P, Minucci D, Parisio F, Pojer A, Schiboni ML, Sintoni C, Zorzi M, Segnan N, Confortini M. Accuracy of liquid based versus conventional cytology: overall results of new technologies for cervical cancer screening: randomized controlled trial. BMJ. 2007 Jul 7. How Is Cervical Cancer Treated? Cervical Cancer: Types of Treatment. Cancer. Net. Jan 2022. Cervical Cancer Treatment (PDQ®)–Patient Version. Cervical Cancer. National Cancer Institute. Apr 2022. Banerjee R, Kamrava M. Brachytherapy in the treatment of cervical cancer: a review. Int J Womens Health. 2014 May 28. Fowler JR, Maani EV, Jack BW. Cervical Cancer. [Updated 2022 Apr 5]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Wadhwani M, Phuljhele S, Kumar R, Shameer A. Cervical carcinoma leading to orbital apex syndrome and blindness. BMJ Case Rep. 2019 Mar 1. Meng FF, Feng YH. A pilot study of acupuncture at pain acupoints for cervical cancer pain. Medicine (Baltimore). 2018 Dec. Sreedevi A, Javed R, Dinesh A. Epidemiology of cervical cancer with special focus on India. Int J Womens Health. 2015 Apr 16. Bobdey S, Sathwara J, Jain A, Balasubramaniam G. Burden of cervical cancer and role of screening in India. Indian J Med Paediatr Oncol. 2016 Oct-Dec.

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Whooping cough Also known as Pertussis and 100 day cough Overview Whooping cough is an extremely contagious respiratory infection caused by the bacteria Bordetella pertussis. It is also called pertussis which literally means “a violent cough”. The disease is characterized by the “whooping” sound that an individual makes when gasping for air after a fit of persistent cough.

The disease can affect people of all ages, however the severity of the symptoms depends on various factors, including the patient’s age, strength of the immune response, and extent of spread of bacteria.

The disease usually starts with cold-like symptoms including a runny nose, mild cough or fever. Within two weeks, a dry and persistent cough may develop which can cause difficulty in breathing. In infants, the cough can be minimal or absent. They may develop a serious symptom called apnea which is a pause in the breathing pattern.

Vaccination can effectively prevent whooping cough and is recommended for all ages. Whooping cough (pertussis) vaccine is given as a combination vaccine with the vaccines for diphtheria and tetanus. Key Facts Usually seen in All age groups Gender affected Both men and women Body part(s) involved Lungs Prevalence Worldwide: 20-40 million (2017) Mimicking Conditions Viral upper respiratory infection Bronchiolitis Pneumonia Tuberculosis Necessary health tests/imaging Total leucocyte count Differential leucocyte count Nose or throat culture and test Chest X ray Treatment Antibiotics: Azithromycin, Clarithromycin & Erythromycin See All Causes Of Whooping Cough

Whooping cough is a bacterial infection caused by Bordetella pertussis & hence, also known as “pertussis”. It is a highly infectious disease that can be transmitted from one person to another through close contact.

If a person suffering from whooping cough sneezes or coughs, the bacteria laden droplets get sprayed into the air, which when inhaled by a healthy person can enter their body. Once inside the body, the bacteria attaches to cilia (hair like extensions) that are present in the upper respiratory system. Post attachment, the bacteria releases toxins which damages the cilia and causes the airway to swell and discomfort in breathing.

On an average, infected people are most contagious for upto 2 weeks after the cough begins. As per the World Health Organization (WHO), there are about 20-40 million cases of whooping cough globally. Of the total cases, 95% have been found to be diagnosed in developing countries.

High incidence rates have been observed in young children due to low vaccination coverage. Coughing adults and adolescents are the major reservoir of B. pertussis and are the usual sources of infection in infants and children. Symptoms Of Whooping Cough

The incubation period (the time period between exposure to an infection and the appearance of the first symptoms of the disease) is 7-14 days.

The symptoms can be divided into three stages: The catarrhal phase The paroxysmal stage The convalescent phase

1. The catarrhal phase This is the most infectious period and lasts for 1-2 weeks. The initial symptoms of whooping cough are mild and are similar to common cold which includes: Mild cough Nasal congestion Sneezing Runny nose Low fever (below 102 degrees F) The cough becomes more severe and frequent as the disease progresses. Though the cough may not be typically paroxysmal (sudden outbursts) in early stages, it tends to be annoying and more frequent at night.
2. Paroxysmal stage This stage is characterized by paroxysms – episodes of sudden outburst or bouts of cough. A thick layer of mucus accumulates inside the airways and causes uncontrollable coughing. Cough is marked by high pitched and long rasping indrawn breath at the end. This phase lasts for approximately 2-6 weeks.

Prolonged and severe coughing may lead to: Vomiting Extreme fatigue Red or blue face High-pitched “whoop” sound with the subsequent breath of air Not every whooping cough patient develops the characteristic “whoop” sound. In this case, persistent cough is considered a symptom for the disease. Intense coughing often results in loss of bladder control, heaviness in the head, headaches, vomiting, and exhaustion. Sudden but common triggers for the uncontrollable cough include yawning, stretching, laughing, yelling, or exercise. It may also occur more frequently at night.

The longer it takes to treat the disease, the more frequent cough episodes may be experienced. Infants with whooping cough may not be able to cough and instead may find it very difficult to breathe.

1. Convalescent phase The intensity and paroxysms of cough decrease gradually over 1-4 weeks. The vomiting becomes less frequent. Appetite, general condition and overall health usually improves. Did you know? Whooping cough is also known as 100 day cough. This is because coughing fits due to the infection can last for up to 10 weeks or more. So do not ignore the symptom and get tested by consulting the right doctor. Consult Now!  
   Risk Factors For Whooping Cough Whooping cough infection can be caused at any time of the year but cases surge during summers. Certain people are at a higher risk of getting the infection and some factors can increase their susceptibility towards the disease, which includes:
2. Lack of immunization or vaccination According to the American Lung Association, anyone who is not yet vaccinated is at a major risk for getting the infection. However, pregnant women and infants may experience severities discussed below:

Pregnancy: Pregnant women approaching the end of their pregnancy should take extra care to stay away from people who might be infected. Unvaccinated women and their babies are at a higher risk of getting the infection.

Babies and infants: Babies are unable to build their own immunity until they are vaccinated when they are two months old. Infants under a year who have not been vaccinated. If an infant gets infected, they may have to be rushed to the hospital for special treatment and care.

1. Close contact with an infected person If anyone in your family or community has been in close proximity with an infected person, used or shared common objects, there is a high risk of getting the infection.
2. Adults with asthma Studies suggest that adults with asthma are at an increased risk of contracting whooping cough. Adults with asthma may develop severe symptoms if they contract the infection. Also, whooping cough in infancy or childhood increases the risk of developing asthma later in life. Therefore, it is highly recommended to stay up to date with the vaccination status to stay safe. Did you know? A pregnant woman can pass some whooping cough antibodies to the baby by breastfeeding. Understand about common things to know while breastfeeding. Click To Read! Diagnosis Of Whooping Cough Whooping cough causes symptoms that are clearly evident but an early diagnosis could be difficult because the symptoms resemble those of a common cold or common respiratory illness. If your symptoms worsen, and the cough persists (longer than 7-10 days) you must visit your doctor.

Often the doctor may ask you questions about the type of cough or symptoms you experience. Based on those answers, your doctor may recommend some medical tests to confirm the presence of the disease such as:

1. Total leucocyte count A blood test is a general and not a specific test for whooping cough diagnosis. A blood test will help determine the presence of an infection or inflammation. A blood sample will be drawn and sent to the laboratory to check for white blood cell count. White blood cells (WBCs) are a component of blood that accounts for 1% of your blood. They are responsible for protecting your body from infections and therefore an increase in the number of WBCs will be indicative of an infection or inflammation.
2. Differential leucocyte count (DLC) Differential leucocyte count (DLC) detects the percentage of each type of white blood cell present in blood.
3. Nose or throat culture test A culture test is performed by swabbing the nasopharynx (the area where the nose and throat meet). A culture test is performed to check for the presence of the whooping cough bacteria. Your doctor may recommend performing a laboratory test to check for the presence of the bacteria using the sample.
4. Polymerase chain reaction test Polymerase chain reaction test is a highly sensitive rapid laboratory test that can help determine the presence of the bacteria in a biopsy specimen.
5. Chest X-ray A chest X-ray helps to produce images of the heart, lungs, airways, blood vessels and the bones of the chest and spine. It is a common and usually one of the first imaging tests recommended by a doctor when they suspect a heart or lung disease. A chest X- ray will help confirm the presence of an inflammation or fluid in the lungs which can occur during the disease. Celebs affected Jenny McCarthy She is an American actress, model, activist, television personality, and author who was diagnosed with whooping cough. Prevention Of Whooping Cough

Whooping cough can be prevented by getting vaccinated and staying up-to-date with the immunization. Alongside one must practice certain preventive measures to prevent the disease. They are:

Vaccine and immunization Vaccination is the best way to prevent whooping cough across age groups including babies, children, teens, pregnant women, and adults. Tdap (tetanus-diphtheria-acellular pertussis) and DTaP (diphtheria-tetanus-acellular pertussis) vaccines are the two globally available vaccines which helps to prevent whooping cough. Both these vaccines are effective against diphtheria, tetanus and pertussis.

Types of vaccines available Broadly, two types of whooping cough vaccines are available: Whole cell (wP/DTwP) Acellular (aP/DTaP) Since 1978, India has been employing the whole cell (wP/DTwP) vaccine in their national immunization programs. Whereas, the acellular ones are mainly prescribed by the private sector.

The American Lung Association recommends the following form of the whooping cough vaccine for the respective age groups: 1. DTaP for young children 2,4 and 6 months 15 through 18 months 4 through 6 years of age

1. Tdap for preteens 11 through 12 years
2. Tdap for pregnant women During the 27-36th week of each pregnancy
3. Tdap for adults Including adults with asthma Anytime for those who have never been vaccinated Chemoprophylaxis It refers to the use of drugs to prevent disease. Erythromycin is recommended for close family contacts of patients suffering from whooping cough, especially children <2 years old. Additional preventive measures

Here are some additional preventive measures that can help to prevent the spread of whooping cough.

1. Self-isolation of suspected individuals Suspected cases should self-isolate to avoid the spread of the infection to adults and young children.
2. Staying up-to-date with your vaccination status Vaccination is the key to prevent the disease. You may require booster doses to ensure the immunity is maintained. Booster doses are recommended for all adults 19-65 years and adults in contact with babies less than 12 months old.
3. Practicing good personal hygiene Whooping cough is a contagious disease therefore make sure you maintain good hygiene by washing your hands with soap and water at regular intervals. Especially, if you come in contact with an infected person, make sure to cover your mouth and face with your hand.

Practicing personal hygiene is extremely important. Someone who gives importance to self-hygiene not only feels comfortable in his/her skin but also prevents transmission of diseases to others.

Learn more about 5 simple ways of maintaining hygiene at your workplace. Tap To Read!

Specialist To Visit

Symptoms of whooping cough mimic common cold and therefore diagnosis can often be difficult. However, persistent and prolonged cough can cause: Vomiting after coughing Turn your face or lips red, purple or blue Difficulty in breathing Whooping sound after the cough Sluggishness If symptoms of whooping cough do not resolve, and get worse you must book an appointment with your doctor to confirm the presence of the disease.

To manage and treat the disease, you can consult the following specialists: General physician Pediatrician (in case of children) Infectious disease specialist Pulmonologist or a lung specialist If your cough fails to subside or if you have any other symptoms along with cough, it is wise to book a consultation with our doctors. Consult Now!

Treatment Of Whooping Cough

Whooping cough is a bacterial infection and therefore can be treated with antibiotics. If the treatment of whooping cough is initiated at an early stage, it becomes easy to manage the severity of the symptoms. If your doctor confirms the presence of the infection, you will be recommended to start antibiotics right away.

Medication Commonly recommended antibiotics include: Azithromycin Clarithromycin Erythromycin If an infant gets the infection, there is a higher chance of complication and risk. In most cases, infants may even need hospitalization. In a complicated and severe case, the patient may require intravenous fluids to replace the lost liquid levels.

Supportive measures General measures include providing adequate nutrition and hydration and avoiding factors aggravating cough. Nebulization with salbutamol is effective in reducing bronchospasm (tightening of the muscles that line the airways or bronchi in the lungs) and controlling bouts of cough. If nebulization is not possible, salbutamol may be given orally. Home-care For Whooping Cough

Common symptoms of whooping cough include cough, runny nose, fever and nasal congestion. Some home care tips and tricks for whooping cough include: Do not give your child over the counter cough medications, unless prescribed by the doctor. Avoid contact with anyone in the household or outside till the time you don’t recover completely from the infection. This will help prevent the spread. Flu-like symptoms can best be resolved with medications prescribed by the doctor and getting plenty of rest. Make sure you relax and take rest till the time your symptoms don’t resolve completely. Keep your surroundings free from triggers such as smoke, dust and chemical fumes to avoid coughing and sneezing. Practice good hand hygiene by washing hands frequently and properly using soap. Drink plenty of fluids in the form of juices, water and soups to stay hydrated and avoid loss of water. Especially for children, be watchful for symptoms such as dry lips, lack of tears while crying and infrequent urination. Use of cool mist vaporizer that could help to loosen the mucus and soothe the lungs Eat small meals in short intervals. This will help to digest the food and avoid chances of vomiting. Avoid close contact with others by keeping your mouth covered with a mask. Complications Of Whooping Cough

Whooping cough, if left untreated, can cause serious complications in different age groups, especially babies and young children. They are at a higher risk for complications because of not being vaccinated and protected.

Infants: Complications of whooping cough

According to the Centers for Disease Prevention and Control (CDC), about half of the babies younger than 1 year old who get the whooping cough infection do need hospitalization. Of those babies who are treated in the hospital with whooping cough: 1 out of 4 (23%) get pneumonia (lung infection) 1 out of 100 (1.1%) will have convulsions (violent, uncontrolled shaking) 3 out of 5 (61%) will have apnea (slowed or stopped breathing) 1 out of 300 (0.3%) will have encephalopathy (disease of the brain) 1 out of 100 (1%) will die Teens and adults: Complications of whooping cough

Teens and adults who are vaccinated tend to face less complications compared to those not vaccinated at all. Some of the commonly reported complications of whooping cough include: Pneumonia: Lung health can be compromised and lead to pneumonia if whooping cough gets severe. Pneumonia can lead to acute respiratory distress and cause a medical emergency sometimes. Seizures: It is a sudden, uncontrolled electrical disturbance in the brain that causes changes in your behavior, movements or feelings, and in levels of consciousness. Encephalopathy: It is a group of brain disorders that can be harmful if left untreated. Hernia: It is a condition when an area of an organ or tissue pushes through a weakened layer of muscle, usually in your groin or abdomen. Severe whooping cough can often lead to a hernia due to persistent and prolonged coughing. Damaged or collapsed lungs: Persistent coughing can cause pressure on the lungs and therefore can lead to collapsed lungs. Tuberculosis: It can lead to flare ups of tuberculosis infection. Malnutrition: This could be due to persistent vomiting and avoiding eating because of fear of cough. Living With Whooping Cough

Whooping cough is a bacterial disease and it can be cured with medications such as antibiotics. However, in some cases it can get severe and cause complications.

Here are some tips to prevent and manage whooping cough effectively: Stay up-to-date with your vaccination status: Vaccines for bacterial diseases such as whooping cough require booster doses after an interval of time. The immunity developed due to the dose tends to drop over the time. Therefore, make sure you get your booster dose as and when scheduled for. Get plenty of rest: Make sure you relax and take rest till the time your symptoms don’t resolve completely. In case of complications, follow up with your doctor on a regular basis. Keep your surroundings free from triggers: Common triggers for cough include smoke, dust and chemical fumes. Make sure to keep your living surroundings clean and tidy. Practice good hygiene: Wash your hands frequently using soap to eliminate chances of a reinfection or spread of the disease. Keep yourself hydrated: Often bacterial infections can cause loss of fluids in the body. Drink plenty of fluids in the form of juices, water and soups to stay hydrated and avoid loss of water. Use mist vaporizers: If you experience discomfort due to the bacterial infection, use vaporizers that can help to loosen the mucus and soothe the lungs. Eat small meals in short intervals: A bacterial infection can often cause difficulty in digesting food. It is recommended to consume small meals that are easy to digest in short intervals. Stay away from large meals. Avoid cough medications for children: It is highly recommended to avoid cough medications if your child is infected with the disease. They fail to clear the airway when used for children. Watch for signs of dehydration: Children with whooping cough may get dehydrated. Be watchful for signs of dehydration such as dry lips, and decreased frequency of urination. In case of severity of infection, make sure to follow up with your doctor. Taking proper medications under the advice of your doctor will help manage the disease. Frequently Asked Questions What is the most common cause of whooping cough? Who is at most risk of whooping cough? Should you stay home if you have a whooping cough? Can whooping cough be spread by kissing? How long does whooping cough vaccine take to kick in? How long is whooping cough contagious? What precautions does whooping cough require? References About Pertussis. Pertussis. Centers for Disease Control and Prevention (CDC). Last reviewed in Nov 2019. Pregnancy and Whooping Cough. Centers for Disease Control and Prevention (CDC). Last reviewed in June, 202. Learn about Pertussis. American Lung Association. Last updated in Aug, 2021. Pertussis (Whooping Cough). IAP Advisory Committee on Vaccines and Immunization Practices. Whooping Cough (Pertussis). Nemours Children’s Health. Last reviewed in Feb, 2016. Pertussis (Whooping Cough). Government of Canada. Last updated in Jan, 2020.

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Wilson’s disease Also known as Hepatolenticular degeneration, Lenticular degeneration, Cerebral pseudosclerosis Kinnier Wilson disease, Westphal’s pseudosclerosis and Westphal-Strumpell syndrome Overview Wilson’s disease is a rare inherited disorder that is characterized by the accumulation of copper in the body. It is caused by mutations in the ATP7B gene which encodes a protein that plays an important role in the transport of copper from the liver to the rest of the body. It also helps remove excess copper from the body.

Although the accumulation of copper begins at birth, symptoms of the disorder do not appear until later in life, between the ages of 6 and 40. Liver disease is the most common manifestation of Wilson’s disease. Involvement of the nervous system or psychiatric changes result in symptoms like tremor, muscle stiffness, drooling, difficulty with speech, physical coordination, abrupt personality change, inexplicable deterioration at school or other work, neurosis, and psychosis.

For diagnosis, healthcare professionals typically look at a person’s medical history, symptoms, physical exam, characteristic features like Kayser-Fleischer ring(a deep copper-colored ring around the edge of the cornea that represents copper deposits in the eye) and laboratory tests.

Prognosis for patients with Wilson disease is usually good, unless disease is advanced before treatment begins. Affected people require lifelong treatment, which may include certain medications and dietary modifications. If treatment is begun early enough, symptomatic recovery is usually complete, and a life of normal length and quality can be expected. Key Facts Usually seen in Age group 6-45 years Gender affected Both men and women more common in women Body part(s) involved Liver Brain Other vital organs Mimicking Conditions Congenital glycosylation disorders Brain iron accumulation syndromes Manganese transport defects MDR3 deficiency Drug-induced hepatitis Necessary health tests/imaging Physical examination Eye examination (Kayser-Fleischer rings, sunflower cataract) Blood tests: Liver biochemistry(Alanine transaminase (ALT) & Aspartate transaminase (AST) levels), Ceruloplasmin & Copper levels Urine tests Imaging tests: Magnetic resonance imaging (MRI), Computed tomography (CT) & Liver biopsy Genetic testing Treatment Chelating therapy: Penicillamine & Trientine hydrochloride To maintain normal levels of copper: Ammonium tetrathiomolybdate & Zinc acetate Liver transplantation Specialists to consult Hepatologists Gastroenterologists Symptoms Of Wilson’s Disease

Wilson’s disease is present at birth, but signs and symptoms don’t appear until the copper builds up in the brain, liver, or another organ. A few signs and symptoms depend on the parts of the body affected by the disease. These include

Liver symptoms In Wilson’s disease, the majority of patient’s present with hepatic symptoms at diagnosis, and almost all have signs of liver damage over the course of the disease.

In some cases, people develop these symptoms when they have acute liver failure. These symptoms may include: Nausea and vomiting Poor appetite Darkened color of urine Yellowish tint to the whites of the eyes and skin, called jaundice Pain in the upper part of the abdomen

In some people the symptoms of the disease develop in case of chronic liver disease and complications from cirrhosis. The clinical features of cirrhosis include spider naevi, splenomegaly, portal hypertension, and ascites.

It has been recommended that all young patients with unexplained chronic liver disease, with or without cirrhosis, should be screened for Wilson’s disease if the following symptoms are visible in them: Swelling of the lower legs, ankles, or feet, called edema Itchy skin Jaundice Feeling tired Neurological and neuropsychiatric symptoms Neurological and neuropsychiatric signs are present in 40–50% of patients with Wilson’s disease. A few signs may appear before the characteristic neurological features, including changes in behavior, deterioration of school work, or an inability to carry out activities that need good hand-eye coordination. Common neurological symptoms may include: Tremors (unintentional and uncontrollable rhythmic movement of one part or one limb of your body) Lack of motor coordination Drooling of saliva Slurred or slow speech Dystonia (contraction of muscles involuntarily, causing repetitive or twisting movements) Headaches Insomnia Seizures Mood disturbances Along with behavioral changes, other psychiatric manifestations include Depression Anxiety Hallucinations and delusions Suicidal tendencies Psychosis It is a severe mental disorder in which thought and emotions are impaired and contact is lost with external reality. Psychosis is majorly seen in patients with a neurological Wilson’s disease manifestation.

Eye symptoms The main ophthalmic findings of Wilson’s disease include: K-F (Kayser-Fleischer rings) - usually greenish, gold, or brownish rings around the edge of the corneas Sunflower cataracts - brilliantly multicolored and are visible only by slit-lamp examination) Other less common symptoms include Night blindness Exotropic strabismus - a form of eye misalignment in which one or both of the eyes turn outward Optic neuritis - characterized by inflammation of the optic nerve, which carries visual information from the eye to the brain. This inflammation usually causes temporary vision loss. Optic disc pallor - refers to an abnormal pale yellow coloration of the optic disc Other changes Pathological changes of bone have been recorded to account for osteomalacia, osteoporosis, spontaneous fractures, adult rickets, and osteoarthritis. Copper accumulation in heart tissues can cause cardiomyopathy and arrhythmias. Other rare manifestations include hypoparathyroidism, infertility, repeated miscarriages, and kidney abnormalities. Causes Of Wilson’s Disease

Wilson’s disease is caused by changes (mutations) in the ATP7B gene. This gene encodes a protein that plays an important role in the transport of copper from the liver to the rest of the body. Mutations in the ATP7B gene prevent this protein from working properly, which can lead to an accumulation of copper in the body.

The ATP7B mutations that cause Wilson’s disease are inherited, ie. they are passed from parent to child. These mutations are autosomal recessive, meaning that a person must inherit two ATP7B genes with mutations, one from each parent, to have Wilson disease.

People who have one ATP7B gene without a mutation and one ATP7B gene with a mutation do not have Wilson disease, but they are carriers of the disease. Risk Factors For Wilson’s Disease

The risk of Wilson’s disease is genetic ie. it is inherited and the risk increases if your parents or siblings have the condition. A genetic test can be performed if a child shows symptoms of Wilson’s and has one or both parents who have the disease. Diagnosis Of Wilson’s Disease

There is no one test for the diagnosis of Wilson’s disease. The diagnostic challenge is that the symptoms are often nonspecific and the disease affects many different organ systems, which results in confusion with other disorders. Many symptoms may evolve over time rather than appear all at once.

In a few cases, the diagnosis is easy to establish in individuals with neurological symptoms, K-F rings, and a low ceruloplasmin concentration. Doctors diagnose Wilson’s disease based on your medical and family history, a physical exam, an eye exam, and tests.

Medical history A doctor will ask about the family and personal medical history of Wilson’s disease and other conditions that could be causing the symptoms.

Physical exam During a physical exam, the doctor will look for physical signs related to Wilson’s disease.

Eye examination Using a microscope with a high-intensity light source (slit lamp), an ophthalmologist checks the eye for Kayser-Fleischer rings, which are caused by excess copper in the eyes. Wilson’s disease also is associated with a sunflower cataract, that can be seen on an eye exam.

Blood tests The doctor may order one or more blood tests, including tests that check amounts of: Liver biochemistry: People with Wilson’s disease may have abnormal alanine transaminase (ALT) and aspartate transaminase (AST) levels. Ceruloplasmin: This protein is the major carrier of copper in the blood circulation carrying six copper atoms per molecule of ceruloplasmin. A ceruloplasmin concentration of less than 0·2 g/L (normal laboratory range 0·2 to 0·5 g/L), is regarded to be consistent with Wilson’s disease. Infants should not be tested until after age 1 year because ceruloplasmin levels are low during the first few months of life. Children < 6 years with normal test results should be retested 5 to 10 years later. Copper levels: The normal copper content of the liver is less than 55 μg/g. The hepatic copper content ⩾of 250 μg/g dry weight is considered the hallmark of Wilson’s disease. It is the method of choice for confirming the diagnosis of the disease. Hepatic copper concentration should be obtained in cases where the diagnosis is not straightforward and in younger patients. Urinary excretion of copper A 24-hour urinary copper excretion is increased in Wilson’s disease, which reflects the amount of serum-free copper in circulation.

In people symptomatic of Wilson’s disease, a urinary copper excretion in a 24-hour period of >1.6 μmol (>100 μg/24 h) is considered diagnostic of the disease.

The reference limits for normal 24-h excretion of copper vary between laboratories, with many taking 40 μg per 24 h (0·6 μmol/24 h) as the upper limit of normal.

Liver biopsy Liver biopsy is an important tool for the evaluation of patients with the hepatic disease if the results of blood and urine tests don’t confirm or rule out a diagnosis of Wilson disease. During a liver biopsy, the doctor evaluates small pieces of tissue from your liver. A pathologist will examine the tissue under a microscope to look for features of specific liver diseases, such as Wilson’s disease, and check for liver damage and cirrhosis.

Genetic testing All first-degree relatives of a patient with newly diagnosed Wilson’s disease must be screened for Wilson’s disease. Molecular genetic analysis can be useful for families where both mutations have been identified in the index patient, enabling molecular analysis for the same mutation in the family members.

Imaging tests Neurologic evaluation and radiologic imaging of the brain, should be considered prior to treatment in all patients with neurologic Wilson’s disease and should be part of the evaluation of any patient presenting with neurological symptoms: Magnetic resonance imaging (MRI): MRI is a non-invasive imaging technology that produces three dimensional detailed anatomical images. MRI of the brain appears to be more sensitive than CT (Computed Tomography) scanning in detecting early lesions of Wilson disease. Computed tomography (CT): A CT scan of the head is an imaging scan that uses X-rays to develop a 3D image of the skull, brain, and other related areas of the head. Prevention Of Wilson’s Disease

Wilson’s disease is a genetic disorder. People with a family history of Wilson’s disease should always go for genetic counseling as a part of pregnancy planning. Genetic counseling is a way to estimate personal genetic risk information and translate it into practical information for families. Genetic counseling helps families understand information about genetic disorders and explain the patterns of inheritance. Therefore, people will get a better insight into the future. Specialist To Visit

A general practitioner can evaluate the symptoms, and start the treatment. They can further refer to other doctors for assessment depending upon the organ affected. Hepatologists: They specialize in the diagnosis and treatment of diseases related to the liver, the biliary duct, the gallbladder, and the pancreas. Gastroenterologists: They specialize in the digestive system and its disorders. If you are facing any health issue, consult our healthcare professionals. Consult Now!

Treatment Of Wilson’s Disease

Successful treatment of Wilson’s disease depends upon timing more than medication. Treatment often happens in stages and should last a lifetime. If a person stops taking the required medications, copper can build back up again. Compliance is a problem for patients because they find it difficult to take life-long treatment when they feel healthy. The various treatment modalities are discussed in detail:

Chelating therapy The first treatment is to remove excess copper from the body through chelation. Penicillamine and trientine are chelating agents used to treat Wilson’s disease. These medicines work by binding excess copper in body tissues, carrying it to the kidneys where it is finally removed via urine. Penicillamine: Penicillamine is the most commonly used chelating medication but while taking this medication, it is advisable to have regular monitoring of full blood count and urinary protein because of possible adverse effects. The early side effects in the first 1–3 weeks include sensitivity reactions with fever, rash, swelling of lymph nodes, thrombocytopenia, and increased levels of protein in urine. These side effects of penicillamine can be severe, requiring discontinuation in many patients. Trientine hydrochloride: It is regarded as an accepted alternative to penicillamine for the initial treatment of Wilson’s disease. Trientine has few side effects and although they are similar to penicillamine, the frequency is much lower. To maintain normal levels of copper after removal The second stage is to maintain normal levels of copper after removal. The doctor may prescribe zinc or ammonium tetrathiomolybdate as it prevents the intestines from absorbing copper. Ammonium tetrathiomolybdate: this medication forms a complex with copper and protein. When it is taken with meals, the drug forms complexes with copper in the food and that is secreted into the intestine, thus preventing absorption. Zinc acetate: Zinc was first used in the 1960s to treat Wilson’s disease. Its mode of action is through inhibition of copper absorption in the intestine. Zinc monotherapy appears to be effective and safe in neurologic Wilson’s disease and consequently may have a role as first-line therapy in this setting. NOTE: Penicillamine or trientine must not be taken at the same time as zinc because either drug can bind with zinc, forming a compound with no therapeutic effect.

Long-term maintenance therapy After the symptoms improve and the copper levels are normal, doctors usually focus on long-term maintenance therapy. This includes continuing zinc or chelating therapy and regularly monitoring your copper levels. Even avoiding foods having a high level of copper in them such as dried fruits, mushrooms, nuts, chocolate, shellfish, and multivitamin.

Other therapeutic agents Toxic concentrations of copper in the liver produce oxidant damage to mitochondria with lipid peroxidation, which can be reduced experimentally by vitamin E administration. Vitamin E concentrations may be low in patients with Wilson’s disease.

Liver transplantation Liver transplantation may be lifesaving for patients with severe Wilson’s disease or severe hepatic insufficiency non responsive to drugs. Liver transplantation is a curative therapy, with neurologic and psychiatric disease stabilizing or improving, and Kayser-Fleischer rings disappearing over time. Home Care For Wilson’s Disease

Home remedies Milk thistle: It is a natural remedy that can help reduce the risk of liver failure if a person has Wilson’s disease. This strong antioxidant has been found to help regenerate injured liver cells and halt the development of cirrhosis in those who have inflammatory liver conditions. It may even improve liver function and survival in those who do have cirrhosis. Turmeric: Turmeric contains a compound called curcumin which has potent antioxidant properties, it also works as a copper chelating agent. Vitamin E: It can be useful as an adjunctive treatment for those with Wilson’s disease. Oxidative stress has been found to play a critical role in Wilson’s disease and vitamin E may be able to counter this. Zinc supplements: Zinc salts can hamper the absorption of copper in your digestive tract and help reduce the buildup of copper in the body. Follow a low copper diet: A low copper diet is an important part of managing this condition. Avoid foods with a high copper content such as mushrooms, chocolate, nuts, dried fruits like prunes, dates, and raisins, soy products, shellfish, and organ meat initially. Ayurvedic regimen: The ancient science of Ayurveda classifies Wilson’s disease as a liver disease dominated by pitta. Treatment, therefore, focuses on regulating pitta, expelling toxins (ama) from the body, boosting the digestive fire (Agni), and detoxifying and protecting the liver. Medicines that expel copper: This is the first line of treatment for Wilson’s disease, aimed at controlling the amount of copper that builds up in the body. The medicines that release copper from the organs into your bloodstream. Living With Wilson’s Disease

Self-care Self-care is an integral part of daily life. It means you take responsibility for your health and well-being, with support from people involved in your care. Self-care involves things to stay fit, maintain good mental and physical health and effectively deal with other minor ailments.

Low copper diet Foods with a high concentration of copper generally should be avoided, at least in the first year of treatment when the excess copper is being cleared from the body. These include liver, cashews, black-eyed peas, vegetable juice, shellfish, mushrooms, chocolate and cocoa.

Regular follow-ups with doctors Poor long-term adherence to drug therapy for Wilson’s disease is common. But, continual, lifelong treatment of Wilson disease is mandatory regardless of whether symptoms are present. Regular follow-up care with an expert in liver disease is highly recommended. Complications Of Wilson’s Disease

Cirrhosis of liver Cirrhosis of the liver is one of the potential complications that may develop from Wilson’s disease. As the patient’s body attempts to clear the buildup of excess copper from the liver, scar tissue is formed in the area, compromising normal liver function.

During the early stages of cirrhosis, patients may be asymptomatic, with symptoms appearing only in the most advanced stages. In the later stages, the symptoms of cirrhosis include jaundice, itchy skin, fatigue, swelling in the legs, and loss of appetite. For patients with Wilson’s disease, liver abnormalities can begin as early as six years of age.

Kidney stones Patients with Wilson’s disease have an increased risk of developing kidney stones, which are formed from tiny deposits of the salts and minerals that are normally filtered by the kidneys.

Due to their increased risk for kidney stones, it is recommended that patients with Wilson’s disease have an annual x-ray to check for any stones. If small stones are found, these can often be passed with the help of pain relievers, alpha-blockers, and plenty of fluids. Larger stones may require other surgical interventions.

Hemolysis It is characterized by the abnormal destruction of red blood cells, and it is a potential complication for patients with Wilson’s disease. This condition causes patients to feel fatigued, and they may also have an increased heart rate and an enlarged spleen or liver. Patients may feel weak, and they could become dizzy or confused.

Neurological issues Patients with Wilson’s disease may experience a variety of neurological issues. For example, lack of coordination, gait abnormalities, tremors, and slurred speech could occur. Some individuals might experience involuntary muscle movements or twitching, and speech difficulties have been observed.

For some patients, neurological issues could be accompanied by psychological changes such as depression, irritability, mood swings, and changes in personality. Bipolar disorder and episodes of psychosis may develop. Alternative Therapies For Wilson’s Disease

All Wilson’s disease patients need to take some type of medication therapy to remove excess dietary copper every day, for life. In some cases, Wilson’s disease patients may benefit from additional forms of therapy to help control emotional or physical symptoms or regain lost movement or speech.

These other forms of therapy maybe

1. Physical therapy Physical therapy restores function for individuals who have neuromuscular or skeletal problems like arthritis, osteoporosis, joint and muscle pain, and coordination issues. The physical therapy will include Exercise and programs to increase muscle function, coordination, balance, and endurance Training in mobility, gait stability, posture, and positioning
2. Occupational therapy Occupational therapy assists individuals with adapting to their social and physical environment.

Therapists help improve function through: Activities that help in maintaining memory, orientation, and cognitive integration Adaptive techniques or equipment to overcome physical disabilities Education and training in areas such as dressing, bathing, eating, and grooming 3. Psychiatric Care People with Wilson’s disease may experience a range of psychological disorders over their lifetimes. Depression is the most common and may happen at a rate that’s more than double that of the general population. The feelings that the person experience are: Persistent sad, anxious, or empty mood Feelings of guilt, worthlessness, or helplessness Thoughts of death or suicide, or suicide attempts Difficulty sleeping, early-morning awakening, or oversleeping Difficulty in concentrating, remembering, or making decisions If any of these are suspected, get in touch with your personal physician or mental health professional for an evaluation. Frequently Asked Questions How common is liver transplantation for Wilson’s disease? What age does Wilson’s disease affect? What are the symptoms of Wilson’s disease? What are the various complications of Wilson’s disease? How does Wilson’s disease affect the eyes? References Wilson Disease. Health. Johns Hopkins Disease. Frequently Asked Questions. Wilson Disease Association. What is Wilson’s Disease? Living with Wilson Disease. Balijepalli, C., Yan, K., Gullapalli, L., Barakat, S., Chevrou-Severac, H., & Druyts, E. (2021). Quality of Life in Wilson’s Disease: A Systematic Literature Review. Journal of health economics and outcomes research, 8(2), 105–113. Wilson Disease. National Center for Advancing Translational Sciences. Balijepalli C, Yan K, Gullapalli L, Barakat S, Chevrou-Severac H, Druyts E. Quality of Life in Wilson’s Disease: A Systematic Literature Review. J Health Econ Outcomes Res. 2021 Dec 8. Treatment. Wilson Disease Association. Kitzberger R, Madl C, Ferenci P. Wilson disease. Metab Brain Dis. 2005 Dec;20. Huster D. Wilson disease. Best Pract Res Clin Gastroenterol. 2010 Oct;24. Wilson’s Disease. Aftab Ala, Ann P Walker, Keyoumars Ashkan. February 2007.. Insights into the management of Wilson’s disease. Therapeutic Advances in Gastroenterology. Mohmadshakil Kathawala and Gideon M. Hirschfield. 2017. Yousaf M, Kumar M, Ramakrishnaiah R, Vanhemert R, Angtuaco E. Atypical MRI features involving the brain in Wilson’s disease. Radiol Case Rep. 2015 Dec . Diagnosis and Treatment of Wilson Disease: An Update. American Association for the Study of Liver Diseases (AASLD). Eve A. Roberts1 and Michael L. Schilsky.2008. Ferenci P. Diagnosis of Wilson disease. Handb Clin Neurol. 2017. Singh P, Ahluwalia A, Saggar K, Grewal CS. Wilson’s disease: MRI features. J Pediatr Neurosci. 2011 Jan;6.

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Chickenpox Also called as Varicella Overview Chickenpox is a viral infection caused by the varicella zoster virus (VZV, also known as chickenpox virus). It is an extremely contagious disease which mostly affects kids but can occur in adults as well. It is usually a mild and self-limiting disease but can lead to severe health complications in people with low immunity or infants. It is characterised by classic super itchy rashes and flu-like symptoms. Although the symptoms of chickenpox take their own course of time, home remedies and home care treatment options do play a key role in relieving the itching and pain. The treatment of chickenpox is mostly centred around managing the symptoms. Key Facts Usually seen in Children below 10 years of age Gender affected Both men & women Body part(s) involved Skin Mimicking Conditions Insect bites Impetigo Drug reactions Dermatitis herpetiformis Urticaria Viral exanthems Pityriasis lichenoides et varioliformis acuta Disseminated herpes simplex virus infection Atypical herpes zoster Rickettsial disease Neonatal syphilis Erythema multiforme Contact dermatitis Necessary health tests/imaging Polymerase chain reaction (PCR) Varicella zoster IgG test Varicella zoster IgM test Treatment Antipyretics: Paracetamol Antivirals: Acyclovir, Famciclovir, Ganciclovir, Ribavirin, Valacyclovir

Specialists to consult Pediatrician (in case of children) Dermatologist Infectious Disease Specialist Internal Medicine Specialist Symptoms Of Chikenpox

The symptoms caused by chickenpox infection appear 10 to 21 days after exposure to the virus and usually last about 5 to 10 days.The initial symptoms may resemble any other infection. At the beginning of chickenpox, a person may begin to feel unwell, have bodyache and headache, accompanied by loss of appetite. After one or two days these are followed by the appearance of the classic rash of chickenpox. One is contagious to close contacts up to 48 hours before the skin rash starts to occur. The common non rash symptoms of chickenpox are as follows: Fever is the most common symptom of chickenpox. It usually lasts for 3-5 days and is in the range of 101°–102°F (38.3°–38.8°C). Fatigue or Malaise which is the general feeling of being unwell Loss of appetite Headache Muscle or joint pain Flu-like symptoms such as a cough or runny nose

Once the chickenpox rash and blisters appear on the body, they go through the following three phases: Red or pink-looking bumps (papules) are often first noted on the stomach, chest, back, or face areas, which then spread throughout the body. The bumps eventually get filled up with fluid, forming blisters (vesicles)that begin to break open and leak. The blisters develop a crust, scab, and begin to heal.

All the blisters are not formed at the same time. New blisters keep on developing throughout the infectious period. However, they follow the same phases as explained above.

All symptoms are typically mild for young children. Those who have been vaccinated (including children and adults) can also still get an infection, but symptoms will be milder and produce fewer blisters on the body.

However, in severe cases of chickenpox rashes and blisters start spreading throughout the body. In some cases, small lesions may even form on the throat, around the eyes, and in the mucus membranes of the urethra, vagina or anus.

In some cases rashes are accompanied by symptoms of disorientation, dizziness, shortness of breath, a rapid heartbeat, a cough (which worsens), poor muscle coordination, and a stiff neck. These symptoms could indicate another possible medical condition or complication which may require prompt medical intervention. Causes Of Chickenpox

Chickenpox is caused by the virus varicella zoster. It mostly spreads due to close contact with an infected person. The virus can spread through: Coughing or sneezing via respiratory droplets Kissing or sharing drinks or food through saliva Handshaking or hugging through contact with the blisters or the fluid on the skin Touching contaminated surfaces like door handles or tables, etc Is chickenpox contagious? Chickenpox is contagious from a day or two before the symptoms start to appear till the blisters become dry and have crusted over. Hence, avoid touching the person who is infected as this can increase your risk of infection. It usually takes a week or two for the blisters to dry and disappear completely. Know more about how the virus spreads and the ways to prevent it. Read Article Here! Risk Factors For Chickenpox

You may be at high risk of getting infected with the chickenpox virus if you have not contracted the infection in your life. The risk increases if you: Haven’t been vaccinated for the infection Have been in contact with an infected child or adult Are an adult who is living with an infected child Work in a school, childcare facility, or healthcare setting Have low or compromised immunity due to illness or use of any medications Does Chickenpox = Chicken + Pox?? No, chicken pox doesn’t mean chicken with pox. It is a viral disease that is caused by the varicella virus. While it is suggested that the name arises because of the marks on the skin that resemble pecks of a chicken, there are few interesting theories as well such as The red blisters that appear on the skin were thought to look like chickpeas (chavli in hindi) and hence, the name chicken pox, says another theory. Chickens were usually associated with weakness and thus, the name chicken pox. An old English word giccan which means to itch was corrupted into chicken. Also, pox was spelled as pocks (plural form of pock — an old English word) Check out more about chickenpox. Seeking medical help, check our doctors. Consult Now! Diagnosis Of Chickenpox

Chickenpox is usually easy to recognise and diagnose due to its classic skin rashes.

However, if required, a confirmatory test by polymerase chain reaction (PCR) testing can be done. For this, the blister fluid or scabs are tested for the presence of the virus.

Moreover, tests for antibodies may be performed to determine if immunity is present against chickenpox. These include: Varicella Zoster IgG test which is used to evaluate the level of antibodies IgG produced by the immune system to fight against varicella zoster virus. Varicella zoster IgM test is performed to diagnose chickenpox, and to distinguish between a recent, current, or old infection. Celebs affected Ishan Khatter In 2019, Bollywood actor Ishan Khatter shared about his recovery from chickenpox on Instagram. Barkha Sengupta TV fame Barkha Sengupta, known for her role in the serial “Naamkaran” posted on instagram in 2019 that she was down with chickenpox and recovering from it. Angelina Jolie Hollywood actress Angelina Jolie suffered chickenpox at the age of 39. She made the announcement through a video in 2014. Prevention Of Chickenpox

One of the simple and effective ways to prevent chickenpox is through vaccination. Although routine infant vaccination has substantially reduced transmission of wild-type varicella, chickenpox vaccination is not a part of the Indian Universal Immunisation Program. Hence, get vaccinated for chickenpox if you have not yet as it can significantly lower the risk of suffering from an infection. Moreover, it is one of the safe and effective options to prevent chickenpox infection. Do consult your doctor for advice on vaccination.

As chickenpox is contagious in nature, it is recommended that if a person in a family is diagnosed with chickenpox, other family members must get vaccinated, if not vaccinated before.

Planning to get vaccinated for chickenpox Click Here Now!

Specialist To Visit

In most cases, the symptoms of chickenpox are usually mild and often go away on their own. However, visiting a clinician and early intervention may lead to slow progression and early resolution of disease. There are times, especially in adults, when the symptoms of chickenpox become severe and may fail to show any signs of improvement. In such a case it is wise to consult a doctor to get it treated.

You must see a doctor if you experience symptoms such as: Vomiting Shortness of breath Rash on the eyes Stiffness of neck High fever (over 102 F) Bacterial infection Loss of muscle control Dizziness

In addition to a general physician, the specialists who can help treat this condition are Pediatrician (in case of children) Dermatologist Internal Medicine Specialist Infectious Disease Specialist Treatment Of Chickenpox

Chickenpox usually runs its course in a week or 10 days. The treatment is mostly aimed at relieving the symptoms. Non Aspirin products such as Paracetamol can be taken to reduce fever.

In adults and those with severe symptoms of chickenpox, doctors might prescribe antiviral medication as it can make the symptoms less severe and improve the condition. However, ensure to follow the course of the treatment and do not self-medicate. Some of the common antivirals used include: Acyclovir Famciclovir Ganciclovir Ribavirin Valacyclovir

Do’s and Don’ts As a protective measure, those infected are usually required to stay at home while they are infectious. It is advised to not use OTC medications such as aspirin for fever as it is associated with Reye’s syndrome in kids. It is a severe disease that affects the brain and may even cause death. Avoid the use of anti-inflammatory painkillers without consulting your doctor as it can increase the risk of severe skin infections. Daily cleansing with warm water will help avoid secondary bacterial infection. Keeping nails short and wearing gloves may prevent scratching and reduce the risk of secondary infections. Home Care For Chickenpox

1. Do not scratch the itch One of the key symptoms of chickenpox is itchy skin and hence, it is advised to avoid scratching. This is because it not only increases the risk of scars but also can lead to infection. As a safety measure, you can trim the fingernails of your kids, which can prevent skin infection caused due to scratching. Tap or pat on the itchy skin but do not scratch.
2. Use cold compress Chickenpox also causes fever, which in turn can make you more prone to skin itching and scratching. Increased body temperature can make things worse for a person with chickenpox. This is the reason why it is advised to use a cold compress as it not only helps in lowering the body temperature but also soothes itchy skin. Apply a cool, damp compress over the itchy area as it acts as one of the effective chickenpox remedies.
3. Eat healthy, home-cooked food It is quite common to crave for spicy and processed food when you are ill. However, it is best to avoid indulging in spicy, oily or salty foods as these not only hinder your digestion process but can also increase heat in the body. Hence, it is best to opt for home-cooked foods, preferably bland foods, to improve the healing process. Also, up your intake of fruits which are rich in Vitamin C and boost immunity such as oranges, apples, grapes, lemons, etc.
4. Stay hydrated Drink lots of fluids as it helps you to stay hydrated and prevent dehydration caused due to high fever. Moreover, it can also help to flush the viral toxins from the body and aid in quick recovery. However, avoid drinking sugary beverages and opt for fresh, plain water, especially if you or your kid has sores in the mouth. For kids, you can opt for sugar-free popsicles to replenish fluid stores in the body.
5. Wear gloves This tip mostly applies to kids because they are the ones who are more prone to scratch an itchy skin. This is the reason why it is advised, especially for kids, to put gloves or socks over their hands to prevent scratching. This can not only prevent the direct content of the nail with the chickenpox blister but also lower the risk of infections and limit scarring. Also, wear loose, cotton clothes, which will help the skin to breathe and ease the itching.
6. Avoid self-medication Most people tend to pop a pill for fever or a painkiller for body ache without a second thought when suffering from chickenpox. However, this is not a good idea. Aspirin, which is commonly used to relieve fever, can cause a deadly condition known as Reye’s syndrome in children below 16 years of age. Hence, do not self-medicate but consult your doctor before taking any pills. Complications Of Chickenpox

Chicken pox is usually a mild disease. However, complications can happen from chickenpox. They are more common in adults and people with weak immune systems like: Infants Pregnant women Patients with conditions like HIV/AIDS, cancer, chemotherapy, steroid therapy, transplants

Some of the serious complications of chickenpox include: Secondary Bacterial infections Dehydration Pneumonia (infection of the lungs) Encephalitis (inflammation and swelling of the brain) Cerebellar ataxia (defective muscular coordination) Transverse myelitis (inflammation of spinal cord) Bleeding Sepsis Toxic shock syndrome Reye’s syndrome in children and teenagers who take aspirin during chickenpox Death Chickenpox And Shingles Although shingles and chickenpox are caused by the same virus, they are not the same illness. Chickenpox is usually a milder illness that affects children. Shingles results from a reactivation of the virus long after the chickenpox illness has disappeared.

The chickenpox virus stays in the body even after recovery. Later in life, the virus can reactivate and cause shingles. If you have shingles, you can spread the varicella virus to people who have never had chickenpox or never received the chickenpox vaccine. These people will develop chickenpox, not shingles. It takes from 10 to 21 days after exposure to chickenpox or shingles for someone to develop chickenpox. Alternative Therapies Of Chickenpox

In addition to antiviral medications, there are few home remedies that are known to help relieve the symptoms and help to get rid of scars caused due to scratching. However, make sure to consult your doctor before you try any of these chickenpox remedies.

1. Oatmeal bath Oatmeal bath is one of the most popular natural remedies to relieve itchy skin caused due to chickenpox. For this, you need to cook two cups of oatmeal in two liters of water for around 15 minutes. Now, let it cool and tie the cooked oatmeal in a cotton cloth and allow it to float in a tub of warm water till the water becomes turbid. Splash this water all over the body to soothe itching.
2. Baking soda This is also quite commonly used to get rid of itching in people with chickenpox. Add 1/4th teaspoon of baking soda in a glass of water. Dip a soft, cotton cloth in it and dab it on the skin such that the baking soda dries on the skin. This can keep you away from scratching the blisters.
3. Vitamin E oil Rich in antioxidant, Vitamin E oil can help to relieve itching as well as prevent scars caused due to scratching of chickenpox blisters. Gently apply Vitamin E oil all over the skin as it exerts a calming and soothing effect on the skin and thus, promotes healing. Moreover, regular application of this oil was found to lighten the scars/marks caused due to chickenpox. Living With Chickenpox

For the short time, when a person has chickenpox, there’s little one can do other than make themselves as comfortable as possible. In most cases, once you have chickenpox, you will not have it again in your lifetime. Rarely, someone may get it more than once. Patients should take ample amounts of rest. Drink lots of water and other fluids to maintain hydration. Other drinks such as cinnamon, chamomile, and basil herbal teas can also boost the immune system. Diet should be simple and wholesome. Avoid fatty and spicy food. Food that is high in saturated fat causes inflammation which can slow the healing of the irritated area. Trim your fingernails to avoid scratching as this can form deep scars and wounds. Application of antihistamine lotion and cool baths can help to calm the itching. Along with self care it is very important to prevent chickenpox from spreading at home. Make sure your family washes their hands frequently, especially after eating and using the restroom. Try not to expose unvaccinated family members, pregnant women, newborns, elderly people, or those with low resistance to infection. One should try to stay isolated until all blisters have crusted or dried. Frequently Asked Questions What do chicken pox look like when they first come out? Does chickenpox provide lifelong immunity? Why is chicken pox worse for adults? How long is chickenpox contagious for? Does chickenpox happen twice? Is chickenpox related to smallpox? References Ayoade F, Kumar S. Varicella Zoster. [Updated 2021 Aug 11]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. InformedHealth.org [Internet]. Cologne, Germany: Institute for Quality and Efficiency in Health Care (IQWiG); 2006-. Chickenpox: Overview. 2014 Jun 30 [Updated 2019 Nov 21]. Cohen J, Breuer J. Chickenpox: treatment. BMJ Clin Evid. 2015;2015:0912. Published 2015 Jun 15. Kota V, Grella MJ. Varicella (Chickenpox) Vaccine. [Updated 2021 Feb 16]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Chickenpox (Varicella). Centres for Disease Control and Prevention (CDC). How to care for children with chickenpox. American Academy of Dermatology. Prevention and Treatment. Chickenpox (Varicella). Centres for Disease Control and Prevention (CDC). Nature Cure for Children. H K Bakhru. Jaico Publishing House, 1999. 304 p. Natural Home Remedies for Common Ailments. H K Bakhru. Orient Paperbacks, 1996. 232 p.

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Xerophthalmia Also known as Xerotic Keratitis and Keratomalacia Overview Xerophthalmia refers to the group of eye signs and symptoms associated with severe Vitamin A deficiency. Vitamin A serves various essential functions in the eye and its deficiency can adversely affect the health of eyes. It is a major problem in developing countries and is a leading cause of preventable blindness worldwide.

It can affect people of any age but children between the age of 2 to 6 years are more prone to this deficiency. The disease can be caused either due to improper consumption, metabolism, or storage of Vitamin A.

This disease can be easily prevented and treated by taking a proper dose of Vitamin A through diet and supplements. Immunization against certain diseases such as measles which serve as a precipitating factor for xerophthalmia can also help in preventing Vitamin A deficiency in children. Key Facts Usually seen in Children between 2 to 6 years of age Gender affected Both men and women Body part(s) involved Eyes Mimicking Conditions Acanthamoeba keratitis Onchocerciasis Trachoma Allergic conjunctivitis Viral conjunctivitis Dry eye syndrome Retinitis pigmentosa Bitot spots Hypothyroidism Necessary health tests/imaging Physical exam Blood test: Serum Vitamin A, Serum retinol binding protein & serum zinc Dark adaptometry and night vision threshold tests Electroretinogram (ERG) Impression cytology Treatment Vitamin A supplementation Zinc supplementation Topical treatment Antibiotics Related NGOs Ophthalmologist Symptoms Of Xerophthalmia

The symptoms of xerophthalmia depend upon the severity of deficiency and age of the patient and gradually progresses through the following stages: Night blindness (impaired sensitivity of the eye to light) This is the first sign of xerophthalmia in which the person is not able to see in dim light and may bump into objects and/or show reduced mobility. Conjunctival xerosis It is characterized by the dull, dry, thick, wrinkled appearance of the conjunctiva. It develops due to changes in mucin secretion that lubricates the conjunctiva. Bitot spots It refers to whitish, foamy, opaque deposits on the conjunctiva. Corneal xerosis Cornea appears dull, dry and hazy in appearance. Corneal ulceration or Keratomalacia Corneal xerosis often leads to ulcers and softening of the cornea. It can even perforate and destroy the cornea of the eyes.. Corneal scars Scarring of the cornea is a late and severe symptom of xerophthalmia. Xerophthalmic fundus It refers to the structural changes in the fundus (the inside, back surface of the eye). Causes Of Xerophthalmia

Vitamin A is an essential nutrient and is responsible for the following central functions of the eyes: A form of vitamin A, called retinal, combines with a protein called opsin to form rhodopsin, an essential light absorbing molecule needed for vision in dim light and color sensitivity. Vitamin A also plays an important role in maintaining a clear vision by supporting the functioning of the cornea which is the protective outer layer of the eye Vitamin A helps to stimulate the lacrimal glands to produce moisture in the eyes and avoid issues like dry eyes. The deficiency of Vitamin A is the main cause of xerophthalmia. The causes of the deficiency include:

A. Inadequate dietary intake of Vitamin A Low intake of dietary sources of Vitamin A can be attributed to: Insufficient food supply Chronic alcoholism Highly selective eating Difficulty in swallowing Mental illness

Here are the ways you can help and support a friend or family member who is coping with mental illness which might be highly affecting their diet pattern. Tap To Know!

B. Impaired absorption of Vitamin A The leading causes of insufficient absorption of Vitamin A are diseases affecting the pancreatic, liver, and intestines like: Chronic liver disease (progressive damage of liver for more than 6 months) Inflammatory bowel disease (inflammation in the digestive tract) Pancreatitis (inflammation of the pancreas) Celiac disease (hypersensitivity to certain foods leading to impaired digestion) Pancreatic insufficiency (improper functioning of the pancreas) Short bowel syndrome (improper absorption of nutrients from food) Chronic diarrhea Upper gastrointestinal surgery Giardiasis (intestinal infection accompanied by fever and diarrhea) Abetalipoproteinemia (impaired absorption of fats and vitamins) C. Reduced storage of Vitamin A The reduced storage of Vitamin A due to the following reason can also cause xerophthalmia. Liver diseases Cystic fibrosis (inherited disorder that mainly affects lungs and digestive system) Did you know? Vitamin A also nourishes the skin cells and promotes a healthy and glowing skin. A healthy dose of Vitamin A also prevents skin cancer by maintaining the production of new skin cells. Know more such benefits of Vitamin A. Read To Know! Risk Factors For Xerophthalmia The following factors can trigger Vitamin A deficiency and eventually lead to xerophthalmia: Age Infants and children are more prone to xerophthalmia due to their higher need of Vitamin A for the growth and development. Children are also more prone to intestinal infections that may impair the absorption of Vitamin A.

Worried about the health of your child? Know some easy and practical ways to ensure that your child does not develop nutritional deficiencies. Tap To Know!

Malnutrition Malnutrition can lead to multiple vitamin deficiencies including Vitamin A deficiency. People living in developing countries are more prone to xerophthalmia due to more chances of malnutrition. Zinc deficiency Malnutrition, especially zinc deficiency, decreases the level of active Vitamin A in the body and increases the chances of developing xerophthalmia. Pregnancy Pregnant and lactating women are at higher risk of developing xerophthalmia due to increased chances of Vitamin A deficiency in this period. Neonates born to Vitamin A deficient mothers are at higher risk of developing xerophthalmia. Poor lactation Breast milk provides various essential nutrients to neonates that are required for normal growth and development. It also protects the infants from various infections in the initial years of life. Inadequate breastfeeding in infants younger than 6 months also increases the risk of xerophthalmia. Medical conditions Some diseases such as chronic liver disease, liver cirrhosis, diarrhea, inflammation of the pancreas, and inflammatory bowel disease make the person more vulnerable to xerophthalmia. Comorbidities The various diseases such as pneumonia, jaundice, vomiting, and septicemia also increase the risk of xerophthalmia. Low socioeconomic status Poor people are more prone to Vitamin A deficiency as they cannot afford proper meals to fulfill their nutritional requirements. Lack of education People who are not properly educated about the importance of proper nutrition are more prone to nutritional deficiences like those of Vitamin A. Alcoholism The excessive consumption of alcohol lowers the level of Vitamin A in the body and predisposes to xerophthalmia. Alcohol Lowers Cholesterol Though small quantities of red wine are known to improve cardiovascular health, continued drinking causes a spike in cholesterol, leading to plaque building in the arteries. Alcohol consumption in the long run, puts you at a heightened risk of heart-attacks. Bust more such myths about alcohol. Bust Now! Diagnosis Of Xerophthalmia

A thorough dietary, medical, social history including alcohol intake is taken from the patient having signs of xerophthalmia. In case of specific indications of night blindness or severe xerophthalmia, treatment with Vitamin A is started immediately. The diagnosis is mostly based on the symptoms. Physical exam The doctor first examines the eyes of the patient for any signs such as dry eyes and spots that are characteristic of xerophthalmia. The physical exam also includes assessment of jaundice. Blood tests Serum Vitamin A/retinol This test measures the level of Vitamin A in the body. The ocular symptoms related to Vitamin A deficiency have been shown to develop at concentrations <10mcg/dL.

Serum retinol binding protein Vitamin A is transported to the tissues in the form of retinol after binding with the retinol binding protein (RBP). The level of RBP reflects retinol concentration which in turn gives an idea about Vitamin A status. The normal level of serum RBP is 30-75 ug/ml.

Serum zinc The decreased level of zinc is also associated with xerophthalmia. The normal levels of serum zinc are 75-120 mcg/dL. Dark adaptometry and night vision threshold tests These tests are used to diagnose night vision defects. Electroretinogram (ERG) ERG measures the electrical activity of the retina in response to a light stimulus, non-invasively. ERGs are recorded using an electrode placed in contact with the cornea. Impression cytology In this, the specimens of the conjunctiva (clear tissue covering the white part of the eye) are studied for the presence of goblet cells (highly specialized cells that produce and secrete mucins, responsible for hydration and lubrication of eyes). A decrease in the amount of these cells is also an indicator of Vitamin A deficiency. Specialist To Visit

Any patient who is experiencing visible symptoms such as dry eyes, must consult the doctor immediately.

The diagnosis of xerophthalmia is done by an ophthalmologist, a physician specializing in diseases and surgery of the eye.

If you are facing any eye-related problems, consult our medical professionals. Consult Now!

Prevention Of Xerophthalmia

All the following factors that maintain an adequate level of Vitamin A play a role in preventing xerophthalmia: Consuming adequate Vitamin A The best way to prevent xerophthalmia is to take an adequate amount of Vitamin A through a healthy balanced diet rich in Vitamin A food sources such as carrots, milk, fish, eggs, green vegetables, yams, and sweet potatoes.

People who are on restrictive diets or facing some issues in getting adequate amounts of Vitamin A, should take the recommended dose of Vitamin A supplements.

Appropriate intake of Vitamin A is also very important during pregnancy and lactation to build stores of retinol in the liver. Environmental sanitation The chances of Vitamin A deficiency increases in the presence of certain diseases such as respiratory tract infections, tuberculosis, diarrhea, and worm infestations. Proper sanitation of the living environment helps in reducing the prevalence of these diseases.

Hygiene is a critical measure of how a person lives his life. Someone who gives importance to self-hygiene not only feels comfortable in his/her own skin but also helps others around him to work in comfort.

Here are 5 simple tips to maintain hygiene at the workplace. Click To Know!

Vaccination Certain vaccine-preventable diseases such as measles serve as a precipitating factor for xerophthalmia. Immunization helps in the elimination of such factors and may help in preventing xerophthalmia. Did you know? A child is exposed to thousands of germs every day through the food he eats, air he breathes, and things he puts in his mouth. Vaccines use very small amounts of substances (antigens) that help your child’s immune system to recognize and learn to fight serious diseases. Learn in detail about vaccination in children. Read Now! Home-care For Xerophthalmia

1. Consume Vitamin A rich food People should consume food rich in Vitamin in their diet such as: Carrots Broccoli Fish Fortified cereals Beef Liver Eggs Chicken Mangoes Whole milk Green leafy vegetables
2. Wear glasses Wearing glasses is a good practice as it reduces the pressure from the eyes and is helpful for the people suffering from night blindness. It also helps the eyes to focus in a better way.
3. Avoid looking directly in the dark The people suffering from night blindness should avoid looking at the dark source directly as it may adversely affect the pupil (black center of the eye).
4. Eyes exercises Patients having xerophthalmia should keep their eyes in motion by looking in different directions, focusing at different points and blinking their eyes. It serves as an eye exercise and helps in the recovery of the eyes.
5. Adaptation to darkness The people who are at initial stage of xerophthalmia i.e night blindness should try to adapt to darkness by sitting in a dark room for 20-30 minutes daily. They should also wear a sleep mask while sleeping. This will make the eyes comfortable in darkness and also help to prevent severe eye disorders.
6. Eye massage Eye massage is a very powerful tool to improve the overall health of the eyes. It should be done only under the supervision of an expert as improper technique can damage the eye lens. To do eye massage: Put slight pressure on both the eyes with the palms Keep that pressure for around 5-10 seconds Vision will turn white instead of black for a slight moment When the black vision comes back, open the eyes This will significantly improve vision in the dark Regular eye massage can prevent night blindness to some extent Complications Of Xerophthalmia

Vitamin A deficiency can cause various complications due severe malnutrition. It also increases the chances of mucosal infections. Keratomalacia and night blindness can also be life threatening in children.

High doses of Vitamin A can treat early symptoms such as conjunctival xerosis and night blindness. Corneal xerosis may however sometimes lead to permanent vision loss. Frequently Asked Questions Is xerophthalmia a genetic disorder? Is xerophthalmia reversible? How does Vitamin A help in the management of night blindness? What are the symptoms of Vitamin A toxicity? References Feroze KB, Kaufman EJ. Xerophthalmia. [Updated 2022 Apr 21]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Xerophthalmia (Vitamin A deficiency): MSF Medical Guidelines. Xerophthalmia, American Academy Of Ophthalmology, Eye Wiki, Last updated on: 17th May, 2022. Xerophthalmia and night blindness for the assessment of clinical vitamin A deficiency in individuals and populations, World Health Organization. Gupta N, Tandon R. Sociodemographic features and risk factor profile of keratomalacia in early infancy. Cornea. 2012 Aug 1;31(8):864-6.

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Xerostomia Also known as Dry Mouth, Xerotos and Waterlessness Overview Xerostomia, commonly known as dry mouth, is a condition in which the person’s salivary glands don’t make enough saliva to keep the mouth wet. It is generally seen as a side-effect of certain medications, symptom of some medical disorders or as an adverse effect of radiation in cancer therapy. Rarely, the cause may be directly related to the salivary gland itself.

Saliva helps prevent tooth decay by neutralizing acids produced by bacteria, limiting bacterial growth, and washing away food particles. Saliva also enhances the ability to taste and makes it easier to chew and swallow food. Along with this, saliva contains enzymes that help in the easy digestion of food.

Decreased salivary secretion can range from minor discomfort to something that affects general wellbeing and the health of your teeth, gums, and surrounding oral tissues. Identifying the factors and causes for xerostomia creates a path for the treatment. Key Facts Usually seen in Adults above 50 years of age Gender affected Both men and women but more common in women Body part(s) involved Oral cavity (mouth) Mimicking Conditions Hyposalivation Necessary health tests/imaging Sialometry Saliograpy Salivary scintigraphy Biopsy Blood tests: Complete blood count (CBC), Blood sugar tests & Electrolyte levels Treatment Saliva substitutes Saliva stimulants Medications: Pilocarpine & Cevimeline Other medications and preparations: Anethole trithione, Yohimbine & Human interferon alfa (IFN-a) Specialists to consult Dentist General physician Symptoms Of Xerostomia

Xerostomia is generally the symptom for many health conditions and a side-effect of certain medications. But it can present itself with other symptoms that include: Changes in perceiving the tastes along with intolerance to spicy, salty, or sour foods or drinks Burning sensation in the mouth in addition to sticky, dry, and rough tongue Difficulty in chewing, swallowing, tasting, or speaking Sore throat Atrophic, cracked, or chapped lips besides peeling Mouth ulcers or sores Increased chances of infections in the mouth Hoarseness of the voice Bad breath or halitosis Increased dental cavities or decay Ineffectiveness to retain dental dentures or any other oral prosthesis Causes Of Xerostomia

Xerostomia is a condition when the salivary glands produce less saliva leading to dry mouth. Some of the common causes include the following:

1. Medications: This is the most common cause of xerostomia. Many medications that are sold over-the-counter mention dry mouth as the side-effect. Some medicines that are known to cause xerostomia are: Medications for anxiety and depression Drugs like anticholinergics that are used in the treatment of urinary incontinence, overactive bladder, and chronic obstructive pulmonary disorder Decongestants and antihistamines used in allergies and cold Some pain medicines Some drugs are used in the treatment of high blood pressure Certain bronchodilators used to treat asthma Some medicines used in treatment of diarrhea Certain muscle relaxants Medications for Parkinson’s disease Drugs used in chemotherapy for the treatment of cancer
2. Radiation therapy: Radiation treatments to the head and neck region for treatment of cancer can cause irreversible damage to the salivary glands. This can lead to a significant decrease in salivary production.
3. Dehydration: Dehydration occurs when the body loses a lot of fluids without getting replenished. This can happen during hot summer months or conditions like vomiting, diarrhea, fever, excessive sweating, blood loss, or burns. When the body is dehydrated, production of saliva is reduced leading to dry mouth.
4. Mouth-breathing or snoring: Breathing through the mouth due to nasal congestion or snoring while sleeping causes saliva to evaporate. This leads to dryness in the mouth.
5. Medical conditions: Xerostomia can be a sign of medical conditions like: Sjogren’s disease (formerly known as Sjogren syndrome) Acquired immunodeficiency syndrome (AIDS) Poorly controlled diabetes Uncontrolled hypertension (high blood pressure) Anemia Hypothyroidism Sinusitis Sleep apnea Cystic fibrosis Mumps Yeast infections Rheumatoid arthritis Systemic lupus erythematosus Parkinson’s disease Alzheimer’s disease Hepatitis C Lymphoma Chronic graft-versus-host disease seen in bone marrow transplant recipients Salivary gland agenesis or aplasia Stroke
6. Aging: People might experience xerostomia as they age. The factors contributing to it can be the use of certain medications, changes in the body’s ability to process medication, inadequate or improper nutrition, or long-term health problems.
7. Nerve damage: Any injury, infection, or surgery that causes damage to the nerves of the head or the neck region can result in xerostomia.
8. Smoking and drinking: Alcohol acts as a diuretic, meaning, as the body breaks down alcohol, it removes the water from the blood through urine. Also, smoking reduces the salivary flow rate leading to dryness of the mouth or xerostomia.
9. Use of recreational drugs: “Meth mouth” is a condition due to the use of methamphetamine that causes severe xerostomia and damage to teeth. Other drugs such as marijuana also can cause xerostomia.
10. Stress and anxiety: Cortisol (also called the stress hormone) is produced in excess when a person is under stress or is anxious. Increased levels of cortisol in saliva can change the composition of the saliva causing the mouth to become dry. Did you know? Xerostomia or dry mouth is one of the main oral symptoms of COVID-19 infection. It is thought that coronavirus can make alterations in the salivary gland which can lead to dry mouth. Xerostomia usually appears before other common symptoms of COVID-19 like fever, cough or difficulty in breathing. Read More About COVID-19! Risk Factors For Xerostomia

Xerostomia can be a symptom of an underlying condition or an adverse effect of certain medications. It can be permanent or temporary depending on the cause. Some of the risk factors associated with xerostomia are: Medications like antidepressants and anxiolytics (anti-anxiety) Autoimmune conditions like Sjogren’s disease and AIDS Old age Bulimia or anorexia Blockage of major salivary duct such as from a salivary stone or infection Smoking Chemotherapy and radiation to the head and neck Mouth breathing Patients with mental or nervous disorders Individuals wearing dentures Pregnancy or breastfeeding Diagnosis Of Xerostomia

The diagnosis of xerostomia is based on detailed:

Medical history Details about duration, frequency, and severity of dry mouth are documented. The history of dryness at other sites (eyes, nose, throat, skin & vagina) along with complete prescription drug history, health conditions, and any other symptoms along with it are obtained.

Physical examination Major salivary glands are examined for the presence of any pain, firmness, or enlargement. The amount and quality of saliva coming from the ducts inside the mouth is assessed.

Examination of the mouth There may be very little or no pooled saliva on the floor of the mouth. The saliva may appear stringy, ropy, or foamy. The presence of dry, sticky or reddish oral mucosa is inspected. Occasionally, fungal or yeast infections will be present, appearing as removable white plaques on the inner mucosal surface of the mouth. Tongue may appear dry with decreased numbers of papillae. The extent and pattern of dental decay is evaluated. Multiple dental caries, especially at the neck of the teeth or the tips of the teeth along with plaque accumulation, gum infections can be seen. Several office tests and techniques can be utilized to detect the abnormal functioning of the salivary glands. These tests are as follows:

1. Sialometry Also known as salivary flow measurement, it is a simple test or procedure that measures the flow rate of saliva. In this test, collection devices are placed over the parotid gland or the submandibular/sublingual salivary gland at the opening of the duct, and saliva is stimulated with citric acid.

The normal salivary flow rate for the parotid gland when it is not stimulated is 0.4 to 1.5 mL/min/gland. The normal flow rate for “resting” the whole saliva is 0.3 to 0.5 mL/min; for stimulated saliva, 1 to 2 mL/min. Values less than 0.1 mL/min are generally considered xerostomic.

1. Saliograpy It is an imaging technique that may be used to detect any masses or stones in the salivary gland. It involves the injection of radio-opaque dye into the salivary glands.
2. Salivary scintigraphy It can be useful in assessing salivary gland function. Technetium-99m sodium pertechnate is injected intravenously to ascertain the rate and density of uptake and the time of excretion in the mouth.
3. Biopsy Minor salivary gland biopsy is often used in the diagnosis of Sjögren’s syndrome (SS), HIV-salivary gland disease, sarcoidosis, amyloidosis, and graft-versus-host disease (GVHD). Biopsy of major salivary glands is an option when malignancy (cancer) is suspected.
4. Blood tests In addition to accessing the salivary glands, some blood tests may also help in detecting any underlying infection or disease. The tests are: Complete blood count (CBC) Blood sugar tests Electrolyte levels Did you know? Two simple signs for diagnosis of xerostomia are a tongue blade sign in which a tongue blade sticks to the oral mucosa while touching it and a lipstick sign in which the lipstick sticks to the front surface of the upper teeth. Do not ignore these signs as dry mouth can be a symptom of an underlying disease. Read More! Prevention Of Xerostomia

Though xerostomia is quite common, it can often be prevented. Here are a few tips to prevent it: Drink a minimum of 2L (i.e. 8 glasses of 250ml each) of water a day. Start using a humidifier in your home, especially in the bedroom. Breathe through the nose rather than through the mouth. Consult the physician before taking any over-the-counter medications such as antihistamines and decongestants. Avoid caffeinated beverages, tobacco, and alcohol, all of which increase dryness in the mouth. Do not consume any recreational drugs as they may cause severe xerostomia. Try maintaining and monitoring blood sugar levels in case of diabetes. Practice good oral hygiene practices. Note: If someone has to undergo radiotherapy, surgical transfer of one submandibular salivary gland to the submental space (deep compartment of the head and neck that lies in the midline below the chin) shields the gland during radiation therapy. Studies confirm that there is no adverse effect on the function of the gland in this position. Specialist To Visit

Xerostomia is a disorder of the mouth. Though it may not appear to be serious, it can be an indicator of several underlying diseases or conditions. Severe xerostomia can cause difficulty in talking, swallowing, and eating food. It can hamper your self-esteem and confidence due to bad breath. Specialists to visit are: Dentists General physician A dentist detects dry mouth and can detect xerostomia long before the patient becomes aware of its existence. One of the more common signs of xerostomia is insufficient pooling of saliva under or around the tongue, a phenomenon easily noted by the dentist. Whereas, your physician may know your medical history and may help in the detection of any other related health condition.

If you are facing such an issue, seek advice from our professionals. Consult Now! Treatment Of Xerostomia

Xerostomia can be managed by several over-the-counter medications and products that aid in providing relief from the symptoms. These medications range from salivary substitutes and stimulants to products designed to minimize dental problems. They are as follows:

1. Saliva substitutes These can be used as artificial saliva that help replace the lost moisture and lubricate the mouth. These substitutes are available commercially, but they can also be compounded. Artificial salivas do not stimulate salivary gland production but are designed to mimic natural saliva. Thus, they are considered as replacement therapy rather than a cure.

These salivary substitutes are available commercially as solutions, sprays, gels, and lozenges. In general, they contain an agent to increase viscosity such as carboxymethylcellulose or hydroxyethylcellulose, minerals such as calcium and phosphate ions and fluoride, preservatives such as methylparaben or propylparaben, and flavoring and related agents.

1. Saliva stimulants A recently developed product called natrol dry mouth relief, which has a patented pharmaceutical grade of anhydrous crystalline maltose (ACM) is used to stimulate saliva production. It has been used in a clinical study of patients with Sjogren’s syndrome and ACM was shown to increase secretions. Natrol dry mouth relief is formulated as lozenges that can be dissolved in the mouth three times daily. As its effect is to stimulate salivary glands, it is not recommended for patients whose salivary gland function has been lost through radiation therapy.
2. Medications Pilocarpine: Pilocarpine is a muscarinic (M3) agonist which stimulates the secretion of saliva. It is indicated for the treatment of symptoms of xerostomia due to salivary gland hypofunction caused by Sjogren’s syndrome or by radiotherapy for cancer of the head and neck area.

Cevimeline: Cevimeline is a cholinergic agonist with a high affinity towards the muscarinic M3 receptors located on lacrimal and salivary gland epithelium, leading to an increase in the secretions of the exocrine glands. It is used to relieve the symptoms of xerostomia in patients with Sjogren’s syndrome.

Note: These prescription medications have to be avoided in patients having asthma & glaucoma.

1. Other medications and preparations The following medications are under clinical trial and the efficacy is yet to be determined. Anethole trithione: This is a bile secretion-stimulating drug or cholagogue. It acts by stimulating the parasympathetic nervous system and increases the secretion of acetylcholine, resulting in the stimulation of salivation. Yohimbine: It is an alpha-2 adrenergic antagonist which indirectly results in an increase of cholinergic activity peripherally thus improving salivation. Human interferon alfa (IFN-a): This drug is currently undergoing clinical trials to determine the safety and efficacy of low-dose lozenges in the treatment of xerostomia in patients with Sjogren’s syndrome. Home-care For Xerostomia

Home remedies for xerostomia help in managing the symptom and provide relief however, these cannot be considered as the cure for it.

1. Try over-the-counter saliva substitutes or oral lubricants Many different brands of salivary substitutes or oral lubricants are available in the market. They do not cure xerostomia but provide some relief and help during eating and speaking.
2. Drink a lot of water Sipping water and staying hydrated can help relieve the symptoms and discomfort caused by xerostomia. Studies have shown that dehydration may be a causative factor in xerostomia and increasing the water intake can help treat mild dehydration.
3. Avoid certain medications The most common cause for xerostomia is the use of certain medications. Talk to the doctor and understand if the medications are causing dryness in the mouth. Do not stop those medications abruptly without consulting the doctor.

The types of medicines that may cause dry mouth include: Antianxiety medicines Anticonvulsants Antidepressants Antihistamines Antipsychotics Sedatives Smoking-cessation agents Urinary incontinence agents Bronchodilators Decongestants Diuretics High blood pressure medications Muscle relaxants Narcotic analgesics Nonsteroidal anti-inflammatory drugs Opioid analgesics Parkinson’s disease medications 4. Say no to dehydrating habits Some of the common ways to prevent dehydration & thereby xerostomia are: Quit smoking Avoid caffeine Limit alcohol use Decrease sugar intake 5. Give importance to overall oral care Xerostomia can be both a symptom and a cause of poor oral hygiene. Maintaining good oral hygiene plays a crucial role in the management of xerostomia. This includes frequent flossing, fluoride toothpaste use, and use of mouthwash.

When choosing a mouthwash, make sure it doesn’t contain any alcohol as alcohol-based mouthwashes will only further increase dryness of the mouth. Also, mouthwashes containing xylitol can also help prevent dental caries.

Since dry mouth often leads to the development of fungal infections like oral candidiasis, antifungal mouth rinses, and dissolving tablets might be required. Dentures often lodge fungal infections, so they should be soaked daily in a chlorhexidine solution.

1. Try sugarless candies or gums Sucking on sugar-free candies or products like chewing gums, cough drops, and lozenges may provide some short-term relief from xerostomia. Citrus, cinnamon or mint-flavored candies make good choices. Some sugarless gums and candies also contain xylitol which can help in prevention of dental cavities.
2. Use lip balms frequently Moisturizing the lips with a lip balm or petroleum jelly every 2 hours can also be helpful.
3. Dietary modifications Moisten foods with gravy, soups, sauces, creams, ghee or butter. Also. taking sips of water or fluids while having a meal can help in softening the food and chewing. Try to have foods that are at room temperature.

Restrict salty foods and dry foods like toast, cookies, dry breads, dry meats, dried fruits, and bananas. Foods and beverages with high sugar content should also be avoided.

1. Avoid mouth breathing consciously Mouth-breathing can make xerostomia worse and may also cause other oral health problems.
2. Use a humidifier Creating a humid environment may help in relieving xerostomia simply by adding more moisture to the surroundings. Complications Of Xerostomia

Xerostomia can often be a contributing factor for both minor and serious health problems. It can affect nutrition and dental as well as psychological health. Some of the common problems associated with xerostomia include: Constant sore throat Burning sensation in the mouth Halitosis or bad breath Difficulty speaking and swallowing Hoarseness of voice Dry nasal passages Excessive plaque accumulation Gum diseases Dental caries Oral candidiasis Alternative Therapies For Xerostomia

1. Home remedies Herbal medicines have shown potentially good results on improving salivary function and to reduce the severity of xerostomia. Moreover, they are relatively safe. Some of the herbs that can be used to manage xerostomia are: Aloe vera: The gel or juice inside the aloe vera plant is very moisturizing. Drinking aloe vera juice can be a treat to the mouth and provide relief from xerostomia. Ginger: Ginger is known to help stimulate salivary production. Homemade mouthwash: Blend 1 cup of warm water with 1/4 teaspoon of baking soda and 1/8 teaspoon of salt. Rinse your mouth for a few seconds then rinse with water. Repeat every 3 to 4 hours.
2. Oil pulling Oil pulling is an old age ayurvedic technique of holding a few tablespoons of coconut or sesame oil in the mouth for 10 to 15 minutes without swallowing. Since the oil cleans out the mouth while coating and soothing irritated spots, it can give some relief in xerostomia.
3. Unani therapy According to Unani therapies, the best way to manage xerostomia is through lifestyle modifications. This is based on Setteh-e-Zarurieah, which means consuming foods that are moisturizing in nature like rice cooked with milk, fresh fish, goat meat, foods that are prepared with pumpkin and spinach as well as purslane.

The best food for patients with xerostomia are almonds, figs, grapes, peaches, and fresh broad beans.

1. Acupuncture In acupuncture, an acupuncturist inserts thin, disposable needles into the skin in such a way that energy flow increases to the mouth and throat. However, acupuncture as a therapy needs more studies and scientific backing. Living With Xerostomia

Xerostomia is a condition that causes dryness of the mouth. It can be mild or severe depending on the cause. Xerostomia can be treated with salivary substitutes, salivary stimulants, and meditations.

In addition to these, the symptoms of xerostomia can be managed by following certain simple tips. They are as follows: Drink at least 8 glasses of water everyday Avoid medications that cause dry mouth Try sugarless candies or gums Limit the intake of caffeine and alcohol Decrease the sugar intake Maintain a good oral hygiene regimen Use a non-alcohol based mouthwash Try over-the-counter saliva substitutes or oral lubricants Moisturize lips with a lip balm Eat food with creams, ghee or butter Restrict eating salty and dry food items Avoid breathing through the mouth continuously Use a humidifier in the house Quit smoking Get proper sleep Avoid walking in the sun or excessive exercise Furthermore, patients with xerostomia should avoid stresses such as anger, sorrow, and excessive fear. If the symptoms still persist consult a dentist or a physician to understand the root cause and manage the symptoms. Frequently Asked Questions What is Sjögren’s syndrome and how is it related to xerostomia? How will a dentist or a physician treat xerostomia? What is the relationship between rheumatoid arthritis and xerostomia? How does radiation treatment cause xerostomia? References Villa A, Connell CL, Abati S. Diagnosis and management of xerostomia and hyposalivation. Ther Clin Risk Manag. 2014 Dec. Rad M, Kakoie S, Niliye Brojeni F, Pourdamghan N. Effect of Long-term Smoking on Whole-mouth Salivary Flow Rate and Oral Health. J Dent Res Dent Clin Dent Prospects. 2010 Fall;4(4):110-4. doi: 10.5681/joddd.2010.028. Epub 2010 Dec 21. Villa A, Abati S. Risk factors and symptoms associated with xerostomia: a cross-sectional study. Aust Dent J. 2011 Sep. Lisa Simon and Hugh Silk, ed. Diseases of the Mouth. Conn’s Current Therapy 2021 (1st ed.). Elsevier; 2021. p 1029-1034. Helping Patients with Xerostomia. Xerostomia. Home Treatment. Dry mouth: Home treatment and prevention. October 2020. Heydarirad G, Choopani R. “Dry Mouth” From the Perspective of Traditional Persian Medicine and Comparison with Current Management. Journal of Evidence-Based Complementary & Alternative Medicine. April 2015:137-142. Tsuchiya H. Characterization and Pathogenic Speculation of Xerostomia Associated with COVID-19: A Narrative Review. Dentistry Journal. 2021. Abdullah MJ. Prevalence of xerostomia in patients attending Shorish dental speciality in Sulaimani city. J Clin Exp Dent. 2015 Feb 1. Wiener RC, Wu B, Crout R, Wiener M, Plassman B, Kao E, McNeil D. Hyposalivation and xerostomia in dentate older adults. J Am Dent Assoc. 2010 Mar.

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Chikungunya Overview

Chikungunya is a viral disease that spreads to humans through the bites of infected female mosquitos. The most prevalent mosquitoes implicated are Aedes aegypti and Aedes albopictus. These two species can also transmit other mosquito-borne diseases, such as dengue. They bite throughout the day, with peak activity in the early morning and late afternoon.

Chikungunya is characterized by fever and severe joint pain, which is often debilitating and varies in duration; other symptoms include joint swelling, muscle pain, headache, nausea, fatigue and rash.

Prevention of Chikungunya involves protecting oneself from mosquito bites by using various tools like nets, sprays, coils, electric bats, and mosquito repellent creams. Mosquito control measures like eliminating stagnant water from plants, coolers, tyres, and road potholes is also crucial. Key Facts Usually seen in All age groups Gender affected Both men and women but more common in women Body part(s) involved Blood Brain Heart Lungs Kidneys Skin Joints Prevalence India: 14.9% (2019) Mimicking Conditions Malaria Dengue Zika virus disease Yellow fever Leptospirosis Measles Mononucleosis African tick bite fever Seronegative rheumatoid arthritis Reiter arthritis Rheumatoid arthritis Hepatitis C Systemic lupus erythematosus Necessary health tests/imaging RT-PCR test Antibody tests: ElISA test, IgM, IgG antibody test Complete blood count (CBC) Treatment Non-steroidal anti-inflammatory drugs (NSAIDs): paracetamol Disease-modifying antirheumatic drugs (DMARDs): methotrexate, hydroxychloroquine or sulphasalazine See All Symptoms Of Chikungunya

The symptoms of chikungunya typically appear 2 to 12 days after a person has been bitten by an infected mosquito. The most common symptoms of chikungunya include:

Abrupt onset of fever or chills Severe joint pain and swelling Joint stiffness Knee pain Shoulder pain Muscular pain Headache Nausea Rashes and redness of the skin Fatigue or tiredness Abnormal bleeding tendency Skin blistering Causes Of Chikungunya

Chikungunya is a viral disease that is transmitted to humans through the bite of infected mosquitoes, primarily the Aedes aegypti and Aedes albopictus species.

When an uninfected mosquito bites a person infected with Chikungunya virus (CHIKV), the virus enters the mosquito’s body. After a few days, the virus spreads to the mosquito’s salivary glands.

When the mosquito bites another person, the CHIKV enters the bloodstream and spreads throughout the body, infecting various tissues, including muscle cells and immune cells. In the new person, the virus multiplies and reaches high levels in their blood, causing symptoms of chikungunya.

This virus can enter the body through the skin, when we breathe (respiration), through the mouth (ingestion), through sex (vaginal, oral, anal) or close sexual contact, or to an unborn baby through the placenta or birth canal.

The virus primarily targets cells in the joints, leading to inflammation and severe joint pain. Risk Factors For Chikungunya

While anyone can contract chikungunya, the following risk factors may increase the likelihood of infection or the severity of the disease:

Staying or traveling to regions where chikungunya is endemic or experiencing outbreaks. Living in areas with inadequate mosquito control measures, such as stagnant water sources or poor sanitation. Spending time outdoors, especially in areas with high mosquito populations. Mosquito exposure is more likely during the daytime, particularly around dawn and dusk when Aedes mosquitoes are most active. Wetter and hotter months of the year. Individuals who have not been previously infected with chikungunya. Infants, young children, older adults, and individuals with weakened immune systems or underlying health conditions.

Ever wondered why mosquitoes prefer biting you over others? There might be times when you might have wondered why mosquitoes bite you more than others. Well, this could be because of: ‘O’ Blood type Mosquito attracting genes Pregnancy Consumption of alcohol

The rationale behind this is that alcohol consumption, pregnancy, and even physical activity raise your metabolic rate, causing you to exhale more carbon dioxide, which in turn attracts more mosquitoes. Diagnosis Of Chikungunya

The diagnosis of chikungunya involves a combination of clinical evaluation and laboratory tests. Here are the key steps involved in diagnosing chikungunya:

1. Medical history and physical examination The healthcare provider will begin by taking a detailed medical history, including information about recent travel to regions where chikungunya is prevalent and symptoms you may be experiencing. A physical examination to check for signs of the disease will also be performed.
2. Symptoms Chikungunya is characterized by symptoms like sudden onset of high fever, joint pain, muscle pain, headache, rash, and fatigue. These symptoms can be similar to those of dengue and Zika, making it important to consider the possibility of chikungunya based on the presence of symptoms and the geographical location.
3. Laboratory Tests The most commonly used tests for the diagnosis of chikungunya include
4. Reverse Transcription-Polymerase Chain Reaction (RT-PCR): This test detects the genetic material (RNA) of the chikungunya virus in a blood sample. It is most effective during the first week of illness when the virus is actively replicating.
5. Antibody tests: Also known as serological tests, are designed to identify the existence of antibodies in the bloodstream, which typically develop after an infection. These tests employ either indirect immunofluorescence (IFA) or enzyme-linked immunosorbent assay (ELISA) methods.

The purpose of these tests is to detect the presence of anti-chikungunya antibodies, specifically IgM (which is detectable from five days to several weeks after infection) and IgG (which remains present from two weeks to several years after infection).

It’s important to note that antibody tests do not detect current infections but indicate previous exposure to the virus.

1. Other tests In most situations, it is advisable to undergo a complete blood count (CBC). This can provide your doctor with information about the severity of the infection and the presence of other conditions like anemia caused by the infection.

Don’t ignore the symptoms and get tested. Book Test Now Celebs affected Lindsay Lohan In 2014, Lindsay Lohan, the American actress and singer, contracted chikungunya during a trip to French Polynesia. She confirmed the diagnosis through her social media accounts. Dona Ganguly Dona Ganguly, the wife of former cricketer Sourav Ganguly, got infected by chikungunya virus in 2022. She was admitted to a private hospital with fever, joint pain, and rashes. How to differentiate between chikungunya, dengue and Zika virus disease? Dengue, Zika virus disease, and chikungunya infection are all mosquito-borne viral diseases transmitted by Aedes mosquitoes. These conditions share common symptoms like fever, rash, and joint pain, making symptom-based diagnosis challenging. However, specific laboratory tests, such as RT-PCR and serological tests, play a crucial role in differentiating between these infections and confirming the diagnosis. Prevention Of Chikungunya

Presently there is no approved vaccine for the prevention of chikungunya. Two vaccine candidates, one made from a modified measles virus and another using virus-like particles, have completed initial tests. More research and trials are underway before the vaccine is approved for public use. In the absence of a vaccine, the most effective way to avoid chikungunya is by taking measures to protect yourself from mosquito bites.

Preventive measures to avoid mosquito bites

Wear long-sleeved shirts and long pants when working outdoors during the day to reduce the risk of mosquito bites. Install window and door screens to keep mosquitoes out of your living areas. Avoid outdoor activities during times when mosquitoes are most active. Use mosquito nets or screens around beds to create a barrier against mosquitoes. Consider using mosquito zapping devices, such as electric bats, to control the mosquito population. To minimize mosquito attraction, switch your outdoor lights to yellow “bug” lights. While not repellent, these lights tend to attract fewer mosquitoes compared to regular lights. Apply mosquito repellents that contain DEET, picaridin, IR3535, Para-menthane-diol (PMD), or oil of lemon eucalyptus.

Pro Tip: Apply sunscreen before applying mosquito repellent.

Tips for babies and children Do not use products containing oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD) on children under the age of 3. Avoid applying insect repellent on a child’s hands, eyes, mouth, cuts, or irritated skin. When using insect repellent for children, adults should first spray it onto their own hands and then apply it to the child’s face. After returning indoors, wash your children’s skin with soap and water to remove any repellent, and wash their clothing before they wear it again. Avoid using sprays in pressurized containers that children may accidentally inhale or get into their eyes.

Products for preventing mosquito bites

Mosquito repellent bands: Worn on the wrist, they come in chemical (DEET-impregnated) and natural (essential oils) varieties.

Mosquito patches: Stickers stuck on clothes (collars, sleeves, skirts, shorts) available in chemical and herbal forms.

Body lotion or mosquito sprays: Synthetic repellents (DEET, permethrin) or natural repellents (citronella) for protection.

Mosquito repellent sticks: Similar to incense sticks, loaded with repellents, used in open spaces like gardens, terraces, or balconies.

Mosquito nets: Conventional option with fine wire mesh (18 x 18 strands per inch) for beds or window screens.

Additional repellent products: Apart from these repellents, there are products like blankets, floor cleaners, electric zappers and table-top fumigation machines, which help keep mosquitoes away.

Protect yourself and your family from mosquitoes with our wide mosquito repellant range. Explore Now

Tips to prevent mosquito breeding

Avoid excessive watering of potted plants and ensure that trays are emptied to prevent them from becoming breeding grounds. Regularly change the water for indoor plants and decorative items that can collect water, such as bird baths, tabletop fountains, flower vases, and fish tanks. Empty water from trays under air conditioners, refrigerators, and other containers like pet or bird feeding bowls. Clean these containers at least once every 15 days to disrupt the mosquito breeding cycle, which typically lasts around 15-20 days. When not in use, turn over empty pails and buckets, and cover containers with tight-fitting lids to prevent mosquitoes from breeding. Use dustbins with properly fitting lids and dispose of trash daily, as uncovered trash cans attract mosquitoes. Implement regular fogging with mosquito repellents or larvicides, and consider spraying pesticides like DDT in potential mosquito breeding areas.

Are you wondering why there are lots of mosquitoes in your house even when you keep it clean? Want to know if your house is a mosquito magnet? Read this article Doctor To Visit

If you notice a high fever accompanied by chills and mosquito breeding in your vicinity, it is advisable to consult a doctor. Additionally, if you encounter a combination of symptoms like high fevers, joint pain, headaches, muscle pains, or a rash, it is crucial to seek medical attention without hesitation. Medical professionals who specialize in diagnosing and treating chikungunya are:

General physician Internal medicine specialist Infectious disease specialist Pediatrician (for children and adolescents)

A general physician will examine your symptoms. If they confirm a diagnosis, they may refer you to an Internal Medicine specialist who provides comprehensive care for adult patients, managing complex cases and addressing underlying health conditions.

Infectious disease specialists also play a crucial role in quickly and accurately diagnosing and treating infectious diseases like chikungunya.

A pediatrician can be consulted for medical treatment and preventive healthcare services for children and adolescents.

Consult India’s best doctors online with a single click. Book An Appointment Treatment Of Chikungunya

The main treatment for Chikungunya fever focuses on relieving symptoms, such as drinking enough fluids, resting, and using paracetamol for pain and fever relief. The treatment can be broadly divided into two phases:

1. Acute phase After a silent incubation period of 2 to 4 days, patients generally display the chikungunya symptoms that may persist 3–7 days during the acute phase of the disease. The following treatment protocols are usually followed during this phase:

Rest should be one of the main recommendations as physical activities tend to aggravate the joint pain, contributing to local wear and thus to prolonging the clinical condition. Certain local measures like the application of cold compresses or ice packs and pain relief gels to the affected joints can reduce swelling and pain.

The two most commonly used medications prescribed for mild to moderate pain are Paracetamol and Metamizole. NSAIDs like ibuprofen and aspirin are usually avoided because of the risk of bleeding.

In the case of severe-intensity pain, Paracetamol or Metamizole might be combined with opioids like Tramadol.

1. Post acute phase While most patients start showing signs of recovery after a week, in some cases chronic and incapacitating joint pain can persist.

In the case of moderate to severe pain that is not responding satisfactorily to the medications in use, other drugs must be recommended. Among these options are disease-modifying antirheumatic drugs (DMARDs), like methotrexate, hydroxychloroquine or sulphasalazine.

Once the pain subsides, the pain relief medications are suspended; conversely, if the pain persists, corticosteroids like prednisolone might be prescribed at an anti-inflammatory dose.

Note: Special considerations are made for pregnant women and children in terms of medication choices.

Listen to our expert talk about the most common mosquito-borne diseases like malaria, chikungunya & dengue including their prevention and treatment. Watch this video Home-care For Chikungunya

Certain herbal remedies that may help alleviate the symptoms of chikungunya. It’s important to note that these remedies may provide relief but should not replace medical treatment or advice.

Here are some herbal remedies that may help manage the symptoms of chikungunya: 1. Turmeric (haldi): Turmeric is an effective natural remedy for alleviating chikungunya-related pain. It contains curcumin, a compound with potent antioxidant and anti-inflammatory properties. It can be consumed as a spice in cooking or taken as a supplement.

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1. Ginger (adarak): Ginger can help relieve pain and discomfort associated with chikungunya. It can be consumed as tea, or as an ingredient in various dishes. To make ginger tea, simply steep fresh ginger slices in hot water for several minutes. It can also be taken in supplement form. Explore our extensive range of ginger supplements Buy Now
2. Sonth: Sonth, or dried ginger is known for its anti-inflammatory and pain-relieving effects. It can be consumed as tea or added to food for relief from chikungunya symptoms.
3. Coconut Water (nariyal paani): Coconut water has a positive impact on the liver, which is often targeted by the Chikungunya virus. Consuming coconut water can aid in a quicker recovery and help reduce chikungunya symptoms.
4. Basil (Tulsi): Basil, also known as tulsi, can help lower body temperature and boost the immune system. Chewing basil leaves or drinking tea made from boiling basil leaves in water can provide relief and aid in the recovery process.
5. Papaya leaf extract: Papaya leaf extract is believed to have immune-boosting properties and may help increase platelet count. It is typically consumed as tea or juice. Fresh papaya leaves are crushed or ground, and the juice is extracted. It can be consumed orally, but the dosage and frequency should be discussed with a doctor.
6. Garlic (Lehsun): Garlic possesses antiviral and immune-boosting properties and alleviates symptoms associated with chikungunya. Garlic can be consumed raw, cooked, or in supplement form. However, it’s important to note that consuming excessive amounts of garlic may cause digestive discomfort, and it can also interact with certain medications. It’s best to consult with a doctor before using garlic as a remedy.
7. Giloy: Also known as Guduchi, is an ayurvedic herb with immunity-enhancing and anti-inflammatory properties. It can be taken as juice or decoction.
8. Spirulina: Spirulina is a type of blue-green algae rich in nutrients. It is often used as a dietary supplement due to its high protein content and immune-enhancing properties. Diet for better recovery from Chikungunya
9. Consume nutrient-rich foods: Include a variety of fruits, vegetables, whole grains, lean proteins, and healthy fats in your diet. These foods provide essential nutrients, antioxidants, and fiber to support your immune system and promote overall well-being.
10. Increase intake of anti-inflammatory foods: Chikungunya can cause joint pain and inflammation. Include foods with anti-inflammatory properties in your diet, such as turmeric, ginger, garlic, berries, leafy greens, fatty fish (like salmon and mackerel), and nuts.
11. Include foods rich in vitamins and minerals: Foods that are high in vitamin C, vitamin D, vitamin E, and zinc can help boost your immune system. Citrus fruits, berries, kiwi, bell peppers, spinach, nuts, seeds, and legumes are good sources of these nutrients.
12. Focus on healthy fats: Include sources of healthy fats like avocados, olive oil, nuts, and seeds in your diet. These fats have anti-inflammatory properties and can support your overall health.
13. Limit processed foods and added sugars: Minimize your consumption of processed foods, sugary snacks, and beverages as they can weaken the immune system and promote inflammation.
14. Probiotics: Probiotics such as yogurt, pickles, tempeh (Fermented Soybeans) etc are rich in probiotics, the good bacteria that support gut health and help stimulate the immune system to fight off disease. Other tips that can help in alleviating symptoms:
15. Stay hydrated: Drink plenty of fluids such as water, herbal teas, and fresh fruit juices to stay hydrated and help flush out toxins from your body. Also, proper hydration makes it easier for immune-boosting nutrients to get to where they need to go (cells) in your body.
16. Take proper rest: Get plenty of rest to allow your body to recover and conserve energy. Avoid strenuous activities that may worsen your symptoms.
17. Epsom salt baths: Soothing bath with Epsom salt is a commonly used home remedy for various conditions, including muscle aches and pains. Dissolve about two cups of Epsom salt in a bathtub filled with warm water and soak in it for 15-20 minutes. This may provide temporary relief and help relax the muscles.
18. Cold Compresses: Applying cold compresses or ice packs to swollen joints or areas of pain can help reduce inflammation and provide temporary relief from discomfort. Complications Of Chikungunya

Most individuals with chikungunya experience a self-limiting illness and recover within a few weeks. However, individuals with pre-existing health conditions or weakened immune systems may be at a higher risk of developing the following complications:

Eye issues such as conjunctivitis (often known as pink eye, is an inflammation or infection conjunctiva), optic neuritis (swelling of the optic nerve), iridocyclitis (inflammation of the iris), retinitis (inflammation of the retina), uveitis (inflammation of the uvea) etc. Persistent joint pain Chronic Arthritis (long-term joint inflammation and leads to chronic arthritis). Cardiovascular issues such as myocarditis (inflammation of the heart muscle), pericarditis (inflammation of the pericardium), and heart failure. Hepatitis (liver inflammation) Skin lesions (or fluid-filled blisters) Hemorrhage (loss of blood, inside or outside the body) Myelitis (inflammation of the spinal cord) Cranial nerve palsies (lack of function of a nerve) Guillain-Barré syndrome (an autoimmune disorder affecting the nerves).

Smoking is never good for your body. Try quitting before it is too late! Explore our smoking cessation products Click Here Did you know? According to research, females who smoke have a higher likelihood, around 2 to 3 times, of experiencing severe pain, particularly in the joints, during both the acute and chronic stages of Chikungunya infection. Alternative Therapies For Chikungunya It’s important to note that these therapies should be used in conjunction with conventional medical care and under the guidance of a healthcare professional. Here are some alternative therapies that may be considered:

Physiotherapy: Chikungunya can cause joint pain and stiffness. Physiotherapy techniques such as gentle stretching exercises and range-of-motion movements can help improve chronic CHIKV-associated severe pain and joint mobility.

Acupuncture: Acupuncture involves inserting thin needles into specific points on the body. Some studies suggest that acupuncture may help alleviate pain and inflammation associated with chikungunya. Seek out a licensed acupuncturist for this treatment.

Aromatherapy: Essential oils such as lavender, chamomile, and eucalyptus may have soothing and anti-inflammatory properties. They can be used in a diffuser, added to a warm bath, or diluted with a carrier oil and applied topically. However, it’s important to note that essential oils should be used with caution and diluted properly, as they can be potent and may cause skin irritation or other adverse effects Frequently Asked Questions How long does it take to recover from chikungunya? When does a chikungunya mosquito bite? Can Chikungunya spread from person to person? Is chikungunya life threatening? Can Chikungunya be cured? Is there a vaccine for Chikungunya? References Ojeda Rodriguez JA, Haftel A, Walker, III JR. Chikungunya Fever. [Updated 2023 Jan 10]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: Chikungunya - about the disease [Internet]. U.S. Department of Health and Human Services; [cited 2023 May 31]. Available from: Lefèvre T;Gouagna LC;Dabiré KR;Elguero E;Fontenille D;Renaud F;Costantini C;Thomas F; Beer consumption increases human attractiveness to malaria mosquitoes [Internet]. U.S. National Library of Medicine; [cited 2023 May 31]. Available from: Lefèvre T;Gouagna LC;Dabiré KR;Elguero E;Fontenille D;Renaud F;Costantini C;Thomas F; Beer consumption increases human attractiveness to malaria mosquitoes [Internet]. U.S. National Library of Medicine; [cited 2023 May 31]. Available from: Prevention, Chikungunya [Internet]. Centers for Disease Control and Prevention; 2022 [cited 2023 May 31]. Available from: Chikungunya virus [Internet]. Centers for Disease Control and Prevention; 2022 [cited 2023 May 31]. Available from: Tips to Prevent Mosquito Bites [Internet]. Environmental Protection Agency; [cited 2023 May 31]. Available from: Choosing an insect repellent for your child [Internet]. [cited 2023 May 31]. Available from: Millsapps EM, Underwood EC, Barr KL. Development and application of treatment for chikungunya fever [Internet]. U.S. National Library of Medicine; 2022 [cited 2023 May 31]. Available from: Boost immunity with food [Internet]. [cited 2023 May 31]. Available from: StatPearls. Chikungunya fever [Internet]. StatPearls Publishing; 2023 [cited 2023 May 31]. Available from: Dobson R. Mosquitoes prefer pregnant women [Internet]. U.S. National Library of Medicine; 2000 [cited 2023 May 31]. Available from: Lefèvre T; Gouagna LC;Dabiré KR;Elguero E;Fontenille D;Renaud F;Costantini C;Thomas F; Beer consumption increases human attractiveness to malaria mosquitoes [Internet]. U.S. National Library of Medicine; [cited 2023 May 31]. Available from: Delgado-Enciso I, Paz-Michel B, Melnikov V, Guzman-Esquivel J, Espinoza-Gomez F, Soriano-Hernandez AD, et al. Smoking and female sex as key risk factors associated with severe arthralgia in acute and chronic phases of chikungunya virus infection [Internet]. U.S. National Library of Medicine; 2018 [cited 2023 May 31]. Available from: Millsapps EM, Underwood EC, Barr KL. Development and application of treatment for chikungunya fever [Internet]. U.S. National Library of Medicine; 2022 [cited 2023 May 31]. Available from: Mieres-Castro D, Ahmar S, Shabbir R, Mora-Poblete F. Antiviral activities of eucalyptus essential oils: Their effectiveness as therapeutic targets against human viruses [Internet]. U.S. National Library of Medicine; 2021 [cited 2023 May 31]. Available from: Translational Research Consortia (TRC) for Chikungunya Virus in India. Current status of Chikungunya in India [Internet]. U.S. National Library of Medicine; 2021 [cited 2023 May 31]. Available from: Dona Ganguly diagnosed with chikungunya; know all about the viral disease [Internet]. 2022 [cited 2023 May 31]. Available from: Chikungunya in Children [Internet]. Delane Shingadia and Nicole Ritz; [cited 2023 Jun 29]. Available from: Sunil S. Current status of Chikungunya in India [Internet]. Frontiers; 2021 [cited 2023 Jun 29]. Available from: Cunha RV da, Trinta KS. Chikungunya virus: Clinical aspects and treatment - A Review [Internet]. U.S. National Library of Medicine; 2017 [cited 2023 Jun 29]. Available from:

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Yellow fever Also known as Yellow jack, Yellow plague, Saffron Scourge, Fievre jaune, Bronze John and Black vomit Overview Yellow fever is a mosquito-borne viral illness commonly seen in tropical and subtropical areas of South America and Africa. The “yellow” in the name refers to jaundice, which is one of the key symptoms of yellow fever seen in certain patients. Many people do not experience symptoms, but the most common symptoms that occur are fever, muscle pain with prominent backache, headache, loss of appetite, and nausea or vomiting. The virus transmission is primarily via Aedes and Haemagogus mosquitos. It has an incubation period of 3-6 days, which means it takes around 3 to 6 days for the symptoms to appear post infection.

Yellow fever is difficult to diagnose, especially during the early stages. More severe cases can be confused with severe malaria, leptospirosis, viral hepatitis, and other hemorrhagic fevers.Tests that help in the diagnosis of yellow fever are polymerase chain reaction (PCR) testing of blood. Sometimes, urine testing can also help detect the virus in the early stages of the disease.

The yellow fever vaccine is recommended if a person is traveling to an area where yellow fever is found and a country that requires to have a certificate of vaccination against yellow fever. The vaccine provides immunity only after 10 days of vaccination. It confers lifelong immunity to people residing in yellow fever endemic countries. Key Facts Usually seen in All age group Gender affected Both men and women Body part(s) involved Whole body Mimicking Conditions Malaria Leptospirosis Viral hepatitis Dengue Necessary health tests/imaging Antigen detection IgM Polymerase chain reaction Enzyme-linked immunosorbent assay (ELISA) Lumbar puncture Computed tomography (CT) scan Liver function tests (LFT) Electrocardiograph (ECG Complete blood count (CBC): Treatment Paracetamol Ibuprofen Aspirin Naproxen Specialists to consult General physician Pediatrician Infectious disease specialist Symptoms Of Yellow Fever The first symptoms of yellow fever usually develop 3 to 6 days after being infected. They include: Muscle pain and backache Feeling sick or vomiting Fatigue (feeling tired) General body aches Nausea Severe headache Eyes being sensitive to light Most people with the initial symptoms improve within one week. For some people after recovery, weakness and fatigue (feeling tired) might last for several months. Yellow fever can be deadly among those who develop severe disease

Up to 1 in 4 people might develop a more severe form of the disease with symptoms such as: Yellowing of the skin and eyes (jaundice) Organ failure Bleeding from the mouth, nose, eyes, or ears High fever Shock Don’t ignore any symptoms. Instead get tested. Lab tests are just a click away. Book Now!

Causes Of Yellow Fever

The yellow fever virus is an arbovirus of the flavivirus genus and is transmitted by mosquitoes, belonging to the Aedes and Haemogogus species. Different mosquito species live in different habitat: some lives in the wild, some are domestic and some in both habitat. There are 3 types of transmission cycles: Sylvatic (or jungle) yellow fever: In tropical rainforests, monkeys, which are the primary reservoir of yellow fever, are bitten by wild mosquitoes of the Aedes and Haemogogus species, they pass the virus on to other monkeys. The humans traveling in the forest are bitten by infected mosquitoes and later develop yellow fever. Intermediate yellow fever: During this type of transmission, semi-domestic mosquitoes (those that breed both in the wild and around households) infect both monkeys and people. Increased contact between people and infected mosquitoes leads to increased transmission. This is the most common type of outbreak in Africa. Urban yellow fever: Large epidemics occur when infected people introduce the virus into heavily populated areas with a high density of Aedes aegypti mosquitoes and where most people have little or no immunity, due to lack of vaccination or prior exposure to yellow fever. Is Your Home A Mosquito Magnet? If you always wonder why there are so many mosquitoes in your house even if your home is clean, then the answer could be that your house is a mosquito magnet. Yes, there are some secret breeding spots for mosquitoes in your house that you have been overlooking. Read to know more. Click Here! Risk Factors For Yellow Fever

1. Being unvaccinated Unvaccinated young children are prone to yellow fever and its complications including death. Unvaccinated pregnant women and nonimmune people can become infected.
2. International traveling Traveling to countries where yellow fever is common and less controlled puts you at a higher risk of developing the disease.
3. Countries experiencing a yellow fever outbreak Countries experiencing or recovering from a natural disaster. Damage to health infrastructures interrupts routine immunization and greatly increases the risk of infection. Diagnosis Of Yellow Fever

Yellow fever is difficult to diagnose, especially during its early stages. A more severe case can be confused with severe malaria, leptospirosis, viral hepatitis, other hemorrhagic fevers, and infection with other flaviviruses (such as dengue hemorrhagic fever).

1. History and physical examination The diagnosis requires a thorough travel history and record of immunization. The doctor may evaluate the present symptoms such as headache, malaise, jaundice, and myalgias with severe back pain. The incubation period of the virus is usually 3-7 days, with most individuals having a mild flu-like illness. In severe 15% of cases, symptoms include chills, low back pain, headache, and fever. During the physical examination, the doctor may check the Faget sign or pulse fever dissociation, facial flushing, and conjunctival injection. During the most toxic phase, patients develop jaundice, dark urine, and vomiting. Bleeding may occur from mucous membranes and in the gastrointestinal tract.
2. Lab tests Laboratory confirmation is important after the physical evaluation is done by the doctor. Antigen detection: Rapid detection methods include the detection of yellow fever antigen using a monoclonal enzyme immunoassay in serum specimens.It is accomplished by testing serum to detect virus-specific IgM and neutralizing antibodies. Polymerase chain reaction: This improved technique not only ensures the specific detection of a wide range of yellow fever virus genotypes but also may increase the sensitivity of detection. Enzyme-linked immunosorbent assay (ELISA): This is a common test that is able to detect different types of antibodies produced at different stages of the infection. This test uses the binding of antibodies to antigens to identify and measure certain substances.
3. Other tests Lumbar puncture: In case of altered mentation, a lumbar puncture is performed. A lumbar puncture is sometimes called a cerebrospinal tap a medical procedure that can involve collecting a sample of cerebrospinal fluid (CSF). Computed tomography (CT) scan: A CT scan uses computers and rotating X-ray machines to create cross-sectional images of the body. In case the brain is involved in yellow fever, a CT scan is performed. Liver function tests (LFT): If the liver is involved, the coagulation profile may be abnormal. Chest X-ray: A chest x-ray is done in patients with respiratory distress because of pulmonary edema. Electrocardiograph (ECG): This test is performed in case of prolonged QT and PR intervals. Arrhythmias are common when the myocardium is affected. Complete blood count (CBC): The blood test may also show a reduction in the number of infection-fighting white blood cells (leucopenia). This can occur because the yellow fever virus affects bone marrow (the spongy material at the center of some bones that produces blood cells). Specialist To Visit

Patients exhibiting the signs and symptoms of yellow fever should visit a general physician. If needed, your doctor may recommend you to go to a specialist such as: Infectious disease specialist: A doctor who is trained in internal medicine and specializes in diagnosing, treating, and managing infectious diseases. Pediatrician: A pediatrician is a children’s specialist who diagnoses and treats malignancies, infections, and genetic defects. Consult India’s best doctors online with a single click. Consult Now!

Prevention Of Yellow Fever

The most effective way to prevent infection from yellow fever virus is to prevent mosquito bites. Mosquitoes bite during the day and night.

Vector control This can be done by using insect repellants, wearing long sleeves shirts and pants, stopping mosquito breeding both indoors and outdoors by avoiding water lodging, and preventing mosquito bites while traveling overseas.

Have you tried these latest range of mosquito repellants like mosquito repellent bands, patches and more? If not, have a look! Check Out!

Vaccination Yellow fever can be prevented by taking vaccination against it. A single injection of yellow fever vaccine given subcutaneously provides immunity to 100% of its recipients. The vaccine provides immunity only after 10 days of vaccination. However, a booster dose is required every ten years by persons residing in nonendemic countries. A further dose of vaccine is recommended for a small number of travelers who are visiting yellow fever risk areas, including those who were previously vaccinated when they were: Pregnant Under 2 years old Living with HIV Had a weakened immune system There are some groups of people who cannot have the yellow fever vaccine when it’s recommended include: People whose immune system is weakened by treatment, such as steroids and chemotherapy People who had a severe reaction to a previous dose of yellow fever vaccine People with a thymus gland disorder or who’ve had their thymus gland removed Epidemic preparedness and response Prompt detection of yellow fever and rapid response through emergency vaccination campaigns are essential for controlling outbreaks. A confirmed case of yellow fever in an unvaccinated population is considered an outbreak. A confirmed case in any context must be fully investigated. Treatment Of Yellow Fever There is no specific treatment, but severe cases require aggressive supportive care and hydration can be helpful in getting relief: Rest, drink fluids, and use pain relievers and medication to reduce fever and relieve aching. Avoid certain medications, such as aspirin or other nonsteroidal anti-inflammatory drugs, like ibuprofen or naproxen which may increase the risk of bleeding. People with severe symptoms of yellow fever infection should be hospitalized for close observation and supportive care. People with yellow fever should be protected from further mosquito exposure (for example, they should stay indoors or under a mosquito net) during the first few days of illness, so they do not contribute to the disease transmission cycle. Paracetamol and ibuprofen can be taken for controlling fever and the pain caused by the virus, for children liquid paracetamol can be used. If a person is having a high temperature increase the intake of fluids to eliminate the risk of dehydration. Home-care For Yellow Fever

No specific treatment exists for yellow fever, which is one reason that preventative measures such as vaccination are so important. Supportive treatment is aimed at controlling the symptoms and includes rest, fluids, and the use of medicines to help relieve fever and aching.

There is no specific home care treatment for yellow fever. The patient requires care and time to time medicines and few precautions. Home care is to be taken to make the disease tolerable: Get plenty of rest A sponge bath can reduce discomfort due to fever Drink plenty of water Pain relievers and analgesics such as acetaminophen To reduce itching from the rash, one can use witch hazel on the rashes or add oatmeal to a bath Talking with a doctor openly in case of any questions related to the disease Taking adequate sleep Dietary modifications Drink a minimum of 8 glasses of water daily. Avoid refined foods, such as white bread, pasta, and sugar. Use healthy oils in cooking, such as olive oil, coconut oil, or ghee. Reduce or eliminate trans fats found in processed and packaged foods like biscuits, namkeens, and cakes. Limit caffeine-containing beverages like coffee. Avoid alcohol and tobacco. Alternative Therapies For Yellow Fever

Home remedies The following home remedies can help in recovery from yellow fever: Garlic (Lehsun): It is known for its anti-inflammatory property; and thus, very good medicine for a mosquito bite. Tomato (Tamatar): They have a good source of water content and thus provide enough water to the body. It helps in getting relief in nausea or vomiting caused due to yellow fever. Coconut water (Nariyal pani): It is the best supplement for yellow fever, as it has the ability to turn yellow eyes to normal. Watermelon (Tarbuz): It has cooling properties, a great substitute for water loss in the body due to nausea or vomiting or appetite loss that appears during yellow fever. Bitter gourd (Karela): It is the best method for reducing inflammation. It is advisable to drink at least two tablespoons of bitter gourd juice, twice a day. Frequently Asked Questions How long does yellow fever vaccination last? What are the side effects of yellow fever vaccination? Who should not get the yellow fever vaccine? Where does the yellow fever virus occur? References Simon LV, Hashmi MF, Torp KD. Yellow Fever. [Updated 2022 Feb 16]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-.. Symptoms, diagnosis and treatment. Centers for Disease Control and Prevention. January 2019. Overview. Vaccination. National Health Service. May 2020. Yellow Fever. Pan American Health Organization. Monath TP, Vasconcelos PF. Yellow fever. J Clin Virol. 2015 Mar. Bréchot C. Polymerase chain reaction for the diagnosis of viral hepatitis B and C. Gut. 1993. Litvoc MN, Novaes CTG, Lopes MIBF. Yellow fever. Rev Assoc Med Bras (1992). 2018 Feb.

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Choking Also known as Strangle, and Clogged up Overview Choking happens when an object or a liquid blocks the throat or windpipe blocking the flow of air. The symptoms of choking are coughing, inability to talk, difficulty breathing and turning blue (cyanosis). Children often choke as a result of placing foreign objects into their mouths. Adults can choke from eating or drinking too rapidly or when laughing while eating or drinking. If someone is choking, the best way to give that person first aid is by encouraging them to cough, bend the person forward and give up backflow to dislodge the blockage. If the person is still choking, give abdominal thrusts by holding it around the waist and pressing the belly inward and outward. Choking can be prevented by following various preventive measures like cutting food into smaller pieces, chewing food slowly and thoroughly, and avoiding laughing and talking while chewing and swallowing. Causes Of Choking

Most episodes of choking are simply due to some mistakes while eating. The various causes of choking are discussed below:

1. Mechanical Choking is the result of mechanical obstruction of the airways preventing normal breathing can be due to eating food too quickly, laughing while eating, or consuming a large chunk of food.
2. Neurological Swallowing is a complex interplay of signals from the brain to the muscles of the mouth and throat. Disorders related to the brain and nerves can create an imbalance in this mechanism and lead to choking.
3. Allergic A few allergic reactions can cause swelling at the back of the mouth that can block airflow and cause a choking sensation.
4. Musculoskeletal Weakening of the muscles of the mouth or throat can make swallowing less effective and can lead to choking.
5. Other causes of choking Stroke Head injury Dementia Multiple sclerosis Symptoms Of Choking

The signs and symptoms of choking vary according to the severity of the obstruction. These include

Difficulty in breathing Difficulty in speaking Neck or throat pain Coughing Dizziness A red puffy face Bluish tint to the lips, skin, or nails due to lack of oxygen Look of shock or confusion Strained or noisy breathing Squeaky sounds while breathing Types Of Choking

Choking can be classified into two types:

Partial airway obstruction or mild choking In partial airway obstruction, the patient may be able to breathe and cough, although there may be a ‘crowing’ noise coming as the air passes through a narrowed space. In this case, the person could clear the blockage by coughing. Complete airway obstruction or severe choking In the case of severe choking, the person won’t be able to speak, cry, cough, or breathe, and without help, they’ll eventually become unconscious. Risk Factors For Choking

1. Inattention while eating If a person is laughing, not chewing the food properly, or distracted by other people’s activities then it can easily increase the risk of choking.
2. Swallowing inedible objects Swallowing inedible objects can sometimes pass through your system without notice. In some cases, the objects can get stuck in the food pipe that connects the mouth and stomach or can block the airway causing choking.
3. Dysphagia (difficulty swallowing) In the case of dysphagia, there’s a risk of food, drink, or saliva going down the wrong way. Ultimately this can block the airway, making it difficult to breathe and causing a person to cough or choke.
4. Neurological and muscular disorders Neurological disorders like cerebral palsy and seizure disorder increase the chances of choking. Any damage to the nervous system can interfere with the nerves responsible for controlling swallowing.
5. Gastroesophageal reflux disease (GERD) GERD is a condition in which acid-containing contents in the stomach persistently leak back up into the esophagus (the tube from the throat to the stomach). In some cases of GERD, a person may experience pain in the chest or trouble swallowing. A feeling of food stuck or tightness in the throat might be experienced.
6. Dentures Dentures can make it difficult to sense whether food is fully chewed before it is swallowed. If dentures are poorly fit, individuals are unable to chew their food properly which can lead to choking. Diagnosis Of Choking

A medical practitioner will carry out an initial assessment of swallowing to assess the reasons for choking. They may refer for further tests and treatments.

1. History A medical practitioner will assess the history of the swallowing difficulties by determining the ability to swallow solids, liquids, or both and ask about the symptoms the individual is facing.
2. Lab tests Swallow tests: These tests can be helpful in the initial assessment of swallowing abilities. The doctor will tell the [patient to swallow water and the time taken to drink water and the number of swallows required will be recorded. Manometry and 24-hour pH study: This test helps in evaluating the functioning of the esophagus. A small tube with pressure sensors is passed through the nose into the esophagus to measure the amount of acid that flows back from the stomach. This can help in determining the cause of choking difficulties.

Booking your lab tests just got easier. Get all the tests done in the comfort and safety of your home. Find all the tests here

1. Imaging tests Barium X-ray: In this test the patient is told to drink a barium solution that coats the esophagus, making it easier to visualize on X-rays. This test helps in visualizing the changes in the shape of your esophagus. The results are recorded, allowing the choking problems to be studied in detail.

Endoscopy: In this test, a thin, flexible lighted instrument (endoscope) is passed down the throat so that the doctor can visualize the esophagus.

Fiber-optic endoscopic evaluation of swallowing (FEES): This test is usually a first choice for studying swallowing disorders as it is easy to use and well tolerated with no radiation exposure. First, an endoscope (a thin and flexible tube with a light and a camera at one end)is used to look down and identify any blockages in the nose and upper airways. Second, swallowing is assessed with different textures and sizes of food and liquid.

Videofluoroscopic Swallow Study (VFSS): This test, also known as a modified barium swallow, is another gold standard that allows dynamic x-ray examination of the oral cavity, pharynx, and esophagus. It permits evaluation of the patient’s airway before, during, and after swallowing.

Computed Tomography (CT scan): This procedure uses a computer linked to an x-ray machine to make a series of detailed pictures of areas inside the body. A neck CT scan uses a special X-ray machine to make images of the soft tissues and organs of the neck, including the muscles, throat, tonsils, airways, thyroid, and other glands.

Magnetic resonance imaging (MRI) scan: The procedure uses strong magnetic fields and radio waves to produce detailed images of the inside of the body. A neck MRI scan makes images of the soft tissues and organs of the neck, including the muscles, throat, tonsils, airways, thyroid, and other glands. Prevention Of Choking

Prevention of choking in adults: Cut or chop food into smaller pieces. Chew food slowly. Avoid laughing and talking while eating. Avoid intake of alcohol before and after meals. If you wear dentures, take extra care to chew the food slowly and properly.

Prevention of choking in children: Children under 4 years of age are at higher risk of choking, but older children can also choke. Children with disabilities or with some chronic illness might also be at higher risk of choking than other children.

1. Avoidance of food choking hazards Children under four years of age are at higher risk of choking on food because they do not have the back teeth that are required for grinding hard food down to small pieces. They are easily distracted while eating and have small airways that can easily block. Foods that are needed to be avoided if your child is under 4 years of age:

Hard fruits and vegetables like raw carrot Small and round fruits and vegetables like whole cherry tomatoes, whole grapes, berries Smooth and sticky foods like peanut butter or some sticky spreads Pieces and bones of meat, chicken, and fish Round and cylindrical foods like hot dogs and sausages Whole nuts and seeds Hard-to-chew foods like hard cookies, chips, candies, and popcorn

1. Make food safer to eat

Peel the skin and remove the seeds of the fruits. Grate hard fruits and vegetables such as raw carrots and apples or cook to soften and cut into smaller pieces. In the case of meat, serve tender, moist meat that is cut into smaller pieces. Remove all bones from the meat before serving. Give them finely chopped or crushed nuts and seeds until they are four years old.

1. Watch the child while eating and drinking

Seat your child comfortably in a chair while eating and drinking Do not let the child eat while walking, running, lying down, or while in a moving car as this reduces the risk of choking Keep the mealtime calm with minimal distractions and encourage the child to chew properly Avoid giving the baby a milk bottle in bed. As soon as the babies fall asleep with a bottle in their mouth, this can draw liquid into their lungs and choking can occur.

1. Avoidance of non-food choking hazards Toddlers and young children explore the world by putting anything and everything in their mouths. Keep the children out of reach of a few things to create a safer environment.

Keep small and round-shaped objects out of reach of children including buttons, bottle caps, coins, jewelry, small magnets, and marbles Check for broken pieces of toys or games around the space where the child is playing. Follow age recommendations on toy packages Teach children not to put small objects in their mouths during their playtime Encourage kids not to put pencils, crayons, or erasers in their mouths when coloring or drawing. Make your home a “Childproof home” by getting down on your hands and knees in every room of your home for a kid’s-eye view. Remove or lock away items that could be dangerous. Did you know? Latex balloons can be a choking hazard for toddlers and young children. If a child chews on a deflated balloon and then suddenly breathes in, a broken latex balloon can fill up a child’s airway and form an airtight seal. This can make rescue efforts very hard. Choose mylar or foil balloons instead. Specialist To Visit Choking can be caused due to several reasons. In case of frequent choking, doctors can help you diagnose the exact cause and provide treatment including

General physicians Neurologists Gastroenterologists Pediatrician (in the case of children)

A neurologist is a specialist in conditions that affect the brain, nerves, and spinal cord A gastroenterologist is a specialist who is a medical practitioner qualified to diagnose and treat disorders of the stomach and intestines. A pediatrician is a doctor who specializes in child care from birth until age 18.

When to see a doctor? You should contact your doctor immediately if you have the following symptoms: Difficulty in breathing Difficulty in swallowing Confusion or disorientation Neck or throat pain Coughing  
Fatigue Noisy breathing

Seek medical help from our trusted team of doctors. Book your appointment now

Treatment Of Choking The primary management of choking is to expel objects or foods blocking the throat. Also, treating the underlying causes is important to stop the episodes of choking.

1. The Heimlich Maneuver In the case of a person coughing forcefully, encourage them to continue coughing to clear the object. Give the person 5 backflows by bending them forward and hitting firmly on their back with the heel of your hand between the shoulder blades to dislodge the object. In the case that a person is not able to cough, speak or breathe, however, needs immediate help. Give them abdominal thrusts, also known as the Heimlich maneuver, to prevent suffocation.

Steps of The Heimlich Maneuver Stand behind the person who is choking Place your arms around the waist and bend them forward Clench your fists and place them above the belly of the person Put the other hand on top of your fist and pull sharply inwards and upwards Repeat the above steps at least 5 times

Learn more about First aid for choking and how you can save a person’s life. Click to read more

1. Cardiopulmonary resuscitation (CPR)

CPR is given when the person is unresponsive and is not breathing or only gasping for air. It is a vital and essential skill that can save someone’s life. The two key elements of CPR are pressing on the chest, also called compressions, and providing breaths.

CPR on adults Unless someone is trained in CPR including rescue breaths and feels confident using these skills, then only the person should give chest compressions with rescue breaths. CPR on adults can be classified into two types: Hands-only CPR CPR with rescue breaths Hands-only CPR (Chest compression) To carry out hands-only CPR, the steps are: Kneel down next to the person and place the heel of your hand at the center of their chest. Place the palm of the other hand right on the top of the hand placed above the chest to interlock the fingers Position yourself in such a way that your shoulders are directly above your hands Using your own body weight press straight down by 2 to 2.5 inches on their chest Keeping your hands on their chest, and allow their chest to return to its original position Repeat these compressions at a rate of 100 to 120 times a minute until the help arrives

CPR with rescue breaths Giving breaths during CPR can help maintain a supply of oxygen in the lungs. This helps in the circulation of oxygen in the vital organs. The preferred method to give breaths is by using a mask; however, mouth-to-mouth breaths can also be given.

To carry out CPR with rescue breaths, the steps are as follows: Place the heel of your hand on the center of the person’s chest, then place the other hand palm on top and press down by 5 to 6 cm and give 100-120 compression at a steady rate After every 30 chest compressions, give 2 rescue breaths For giving rescue breaths, tilt the person’s head gently and lift the chin up with 2 fingers and pinch the person’s nose. Seal your mouth over their mouth and blow steadily into their mouth for about 1 second Continue with this pattern of cycles of 30 chest compressions and 2 rescue breaths until the person begins to recover or help arrives

Note: For children, it is recommended to carry out CPR with rescue breaths.

1. Intubation A breathing tube is passed into a person’s windpipe (trachea). This helps push the object obstructing the airway out of the way enough to provide air to the lungs. If intubation is unsuccessful in a person then the doctor may perform a surgical procedure called cricothyrotomy which involves placing a tube through an incision in the cricothyroid membrane (CTM) to establish an airway for oxygenation and ventilation. Complications Of Choking

Choking if not addressed immediately can lead to the following complications:

1. Aspiration Pneumonia This is a chest infection that can develop after accidentally inhaling something, such as a small piece of food. It causes irritation in the lungs or damages them.
2. Hypoxia The most feared complication of foreign body airway obstruction is hypoxia which results in respiratory arrest, anoxic brain injury, and death.
3. Abdominal injury The complications with the Heimlich maneuver include injury to the abdomen and regurgitation of stomach contents. Frequently Asked Questions What is most commonly choked on food? Is choking a common emergency? How do you prevent choking? What age group is most at risk for choking? Does choking increase with age? Key Facts Usually seen in Children are aged 1- 4 years and adults over 65 years. Gender affected Both men and women Body part(s) involved Throat Pharynx Larynx Trachea Lower respiratory tract Mimicking Conditions Dysphagia (Swallowing difficulties) Pseudodysphagia (Lump in the throat) Phagophobia (Swallowing/ choking phobia) Necessary health tests/imaging Lab tests Swallow tests Manometry and 24-hour pH study Imaging tests Barium X-ray Endoscopy Fiber-optic endoscopic evaluation of swallowing (FEES) Videofluoroscopic Swallow Study (VFSS) Computed Tomography (CT scan) Magnetic resonance imaging (MRI) scan Treatment The Heimlich Maneuver Cardiopulmonary resuscitation (CPR) Breathes Compression Intubation Specialists to consult General physicians Neurologists Gastroenterologists Pediatrician (in the case of children) References Cichero JAY. Age-Related Changes to Eating and Swallowing Impact Frailty: Aspiration, Choking Risk, Modified Food Texture and Autonomy of Choice. Geriatrics (Basel). 2018 Oct 12;3(4):69. Dodson H, Cook J. Foreign Body Airway Obstruction. [Updated 2022 May 2]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Choking Prevention. Nationwide Children’s.February 2010. Duckett SA, Bartman M, Roten RA. Choking. 2022 Sep 19. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Cramer N, Jabbour N, Tavarez MM, et al. Foreign Body Aspiration. [Updated 2022 Aug 1]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Akiyama N, Uozumi R, Akiyama T, Koeda K, Shiroiwa T, Ogasawara K. Choking injuries: Associated factors and error-producing conditions among acute hospital patients in Japan. PLoS One. 2022 Apr 27. What should I do if someone is choking? National Health Service. 14 September 2022.

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Zika virus disease Also known as Zika fever, Zika, Zika disease and ZIKV disease Overview Zika virus disease is a mosquito-borne viral infection caused by the Zika virus. Its name comes from the Zika forest of Uganda, where the virus was first isolated in 1947. The virus spreads to people primarily through the bite of an infected Aedes aegypti mosquito, the same mosquito that causes chikungunya, dengue, and yellow fever. However, it can also spread from mother to child during pregnancy or through sexual intercourse.

It is reported that 4 out of 5 suffering from Zika virus disease do not experience any symptoms. And in people who show the symptoms, it presents as fever, rash, conjunctivitis, muscle pain, and joint pain. The virus can be diagnosed through RT-PCR and IgM testing.

There is no vaccine or specific treatment for Zika infection. However, disease can be prevented by reducing mosquito bites. This can be done by applying mosquito repellents, sleeping under nets, wearing long sleeve & using mesh on the windows. Special precautionary measures should be taken by pregnant women to avoid complications such as birth defects. Key Facts Usually seen in All age groups Gender affected Both men and women but more common in women Body part(s) involved Whole body Mimicking Conditions Dengue Yellow fever West Nile fever Japanese encephalitis Tick-borne encephalitis Necessary health tests/imaging RT-PCR test Ig M test Plaque reduction neutralisation tests (PRNT) Treatment Fluid therapy Paracetamol Specialists to consult General physician Infectious disease specialist Gynaecologist Symptoms Of Zika Virus Disease

The incubation period (the time from exposure to symptoms) of Zika virus disease is 3 to 14 days. Symptoms are usually indistinguishable from other diseases such as dengue & chikungunya and persist for 2 to 7 days. The symptoms include: Fever Rash Conjunctivitis Muscle pain Joint pain Malaise Headache Patients might also experience some other symptoms such as: Abdominal pain Diarrhoea Constipation Photophobia Small ulcers on the oral mucosa Hearing impairment Vomiting Causes Of Zika Virus Disease

Most people get the Zika infection through mosquito bites. It is primarily transmitted through the bite of an infected Aedes aegypti and Aedes albopictus mosquito. These mosquitoes lay eggs & breed in or near stagnant water. Standing water in coolers, buckets, flower vases, and pots provide breeding sites to these infected mosquitoes.

A person can get the virus in his blood through the bite of an infected mosquito. The virus usually remains in the blood for one week. These mosquitoes mostly bite during the morning and early afternoon.

The basic reproduction number (R0, a measure of transmissibility) of Zika virus has been estimated to be between 1.4 and 6.6. R0 tells you the average number of people who will contract a contagious disease from one person with that disease. For example, if a disease has an R0 of 18, a person who has the disease will transmit it to an average of 18 other people.

Note: R0 (R naught) is the basic reproduction number, also known as basic reproduction ratio or rate, which is used to measure the transmissibility of infectious agents.

The other ways through which people can get the infection include: Through unprotected sexual intercourse Through contaminated blood transfusions From mother to child

Don’t ignore any symptoms. Instead get tested. Lab tests are just a click away. Book Now!

Risk Factors For Zika Virus Disease

The factors that increase the risk of Zika virus disease include: Unprotected sex Travelling to the areas where there are Zika outbreaks Staying in Zika-infected area Blood transfusion Did you know? Zika virus disease was declared as a public health emergency because the disease is linked with a congenital defect, microcephaly in which babies are born with undersized brains and skulls. Moreover, the Indian population was at a high risk of Zika virus infection. Read to know more about the Zika virus threat in India. Read Now! Diagnosis Of Zika Virus Disease

Zika virus disease is usually advised to be diagnosed within a week of developing symptoms or in case you or your partner have recently travelled to a contaminated area.

The most common testing methods includes:

1. Reverse transcription polymerase chain reaction (RT-PCR): This method detects RNA (genetic material) of the Zika virus. It is a rapid, sensitive and specific method for early detection. The test can be done with urine, saliva & blood samples. Studies suggest that the genetic material of the Zika virus can be detected for a longer time in the urine and saliva of patients for a longer duration as compared to blood. This test can detect the virus during the first 3 to 5 days from the onset of infection.
2. Serology: It detects the antibodies such as immunoglobulin M (IgM) in the blood produced by the virus. The method can detect the presence of antibodies after 4 days of illness. IgM levels are variable, but generally become positive starting in the first week after onset of symptoms and continuing for up to 12 weeks post symptom onset or exposure, but may persist for months to years. Generally, it is not used much as it cannot differentiate with other flaviviruses such as dengue, chikungunya, and yellow fever.
3. Plaque reduction neutralisation tests (PRNT): These are quantitative assays that measure virus-specific neutralising antibody titers. PRNTs can resolve false-positive IgM antibody results that cause non specific infections and help identify the exact virus that has caused the infection. Thus, it is a confirmatory diagnostic method.

Examination during pregnancy During pregnancy, several tests can be done to identify congenital Zika virus infection. These include: Ultrasound: For Zika infected (or suspected) pregnant women, serial ultrasounds (every 3 to 4 weeks) are recommended. The test can detect various brain related abnormalities of the foetus such as microcephaly and intracranial calcifications. Microcephaly can be detected in the late second & early third trimester of pregnancy. Early detection (18 to 20 weeks of gestation) is also possible. Amniocentesis: In this procedure, amniotic fluid (fluid that surrounds the foetus) is tested for the possible Zika virus infection of the baby. It is done after 15 weeks of gestation as early detection increases the chances of infection.

Several tests such as anemia, diabetes, hepatitis B and C, and HIV conducted during pregnancy can minimise or prevent various health threats.

Read to know about some of the basic tests and their importance conducted during pregnancy. Click To Read!

Prevention Of Zika Virus Disease

A. Avoid mosquito bites

1. Use mosquito repellents These are available in the form of patches, bands, creams & lotions. A mosquito repellant provides protection from mosquitoes both indoors and outdoors. They can be chemical based or natural. Commonly available mosquito repellants in the market are: DEET Oil of lemon eucalyptus Picaridin IR3535 Tips to follow while using repellants Avoid spraying the repellant on the skin under clothing. Apply sunscreen first, if you are applying it with a repellant. Read complete instructions to avoid any reaction. Do not apply insect repellent to a child’s hands, eyes, mouth, cuts, or irritated skin. Are you applying mosquito repellants correctly? Learn more about it. Click Here!
2. Avoid stagnant water Mosquitoes lay eggs in and around standing water. The following measures can be taken to avoid standing water. Drain out water from buckets and mugs after washing & bathing. Cover up water storage containers with tight lids. Remove standing water from flower pots, AC trays, and coolers. Clean roof gutters, home coolers and swimming pools regularly. Keep native larvivorous fishes in the pools as they feed on mosquitoes.
3. Restrict entry of mosquitoes from outdoors The infected mosquitoes breeding eggs outside in the trash containers can enter the house. The best way is to prevent their entry. This can be done by taking following measures: Use nets and screens for doors and windows. Keep windows and doors close. Fix all the holes of doors and windows, if any. Cover baby carriers with net.
4. Cover yourself up One can avoid the mosquito bite by wearing protective clothing. While you are dressing up, follow the measures such as: Wear full sleeve clothes. Wear light colored clothes. Allow the clothes to dry completely before wearing. Treat clothes with insecticide such as permethrin.
5. Sleep under mosquito nets It is one of the conventional and effective ways to prevent mosquito bites. These nets can be mounted on your bed. The fine mesh of the nets restricts the entry of mosquitoes.

Have you tried these latest range of mosquito repellants like mosquito repellent bands, patches and more? If not, have a look! Check Out Here!

B. Follow safe sexual practices Zika virus disease can be transmitted through vaginal, oral & anal sex. Sharing of sex toys can also pass the virus to other person. The virus can stay in semen (viral persistence in testes can last upto 160 days) and vaginal secretions for a longer time than any other body fluids (urine & blood). The following preventive measures can be taken to reduce the chances of infection. Use condoms while having vaginal, oral and anal sex (from start to end). Abstain from any sort of sexual activity, if infected. Avoid sharing of sex toys. Use dental dams while having oral sex. Condoms can not only act as an effecitve contraceptive but also protects you from a wide range of sexually transmitted diseases. But, are you using condoms in the right way? Click To Read!

Specialist To Visit

In most cases, the symptoms of Zika infection are usually mild and often go away on their own. However, visiting a doctor and early intervention may lead to slow progression and early resolution of disease. The specialists who can help treat this infection include: General physician Infectious disease specialist In case of pregnancy, women should visit her obstetrician-gynaecologist as the Zika infection is known to cause several complications in the foetus.

If you are facing any discomfort, seek advice from our world-class medical professionals. Consult Now! Treatment Of Zika Virus Disease

There is no specific treatment or vaccine available for Zika virus disease. The treatment is usually aimed to reduce the symptoms. Most of the patients usually recover on their own by taking proper rest & supportive care. People are advised to take plenty of fluids such as water, fruit juices, buttermilk, and coconut water to prevent dehydration. As the infection causes tiredness and fever, proper rest should be taken by the patients. In case of pain and fever, paracetamol can be taken. Pregnant women living in the areas of active Zika transmission or having symptoms should immediately consult their doctors. Note: Non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen or aspirin should be avoided until your doctor confirms the absence of dengue fever. Home-care For Zika Virus Disease

Once you have Zika virus, there are very few chances that you will experience any symptom. Symptoms are usually mild and rarely require hospitalisation. Try to take plenty of water and proper rest. Abstain from any kind of sexual activity as it may transmits the infection to your partner. Do not plan to conceive for at least 2 to 3 months after the recovery. Control mosquitoes both inside and outside your home. Pregnant women should regularly meet their gynaecologist to screen any foetal abnormality or birth defects.

If you are taking care of a Zika infected patient, follow these precautionary measures to reduce the transmission. Do not touch blood or body fluids such as urine and vomit of infected person. Wash hands properly after meeting the infected person. Remove and wash clothes timely and immediately, if they are exposed to any blood or other fluids of an infected person. Sanitise the person’s environment and belongings daily. Take necessary steps to avoid mosquito bites such as keeping doors and windows closed and using mosquito nets. Is your home a mosquito magnet? If you always wonder why there are so many mosquitoes in your house even if your home is clean, then the answer could be that your house is a mosquito magnet. Yes, there are some secret breeding spots for mosquitoes in your house that you have been overlooking. Read to know more. Click Here! Complications Of Zika Virus Disease

People suffering from Zika virus disease usually recover on their own. The disease is mild and rarely requires hospitalisation. But, in some cases, the diseases can cause several complications. Pregnant women are at high risk of developing complications.

Congenital Zika syndrome There is a strong link between Zika virus infection during pregnancy & birth defects in children. An infected pregnant woman can pass the virus to her developing baby. It can cause a group of birth defects in the child known as congenital Zika syndrome. It can affect the growth & development of the developing baby. The possible abnormalities include: Smaller brains and collapsed skull, the condition is known as microcephaly Decreased brain tissue Scarring at the back of eye Reduced mobility of the joints Reduced movement of the body immediately after the birth Epilepsy Intellectual disability Respiratory infection Dysphagia Neural tube defects Cerebral palsy Low birth weight Vision problems

Guillain-Barré syndrome (GBS) Zika virus disease can cause GBS, which is a neurological disorder in which nerve cells are damaged by the immune system. It can lead to muscle weakness. In advanced stages, muscles that control breathing can also be affected. Usually, patients recover from GBS within several months. Rarely, it causes permanent damage.

GBS is a rare complication of Zika virus infection. It occurs in 2-3 patients out of 10,000 affected with the infection.

Other neurological disorders Zika virus disease can also lead to some central nervous system related disorders such as: Encephalitis Meningoencephalitis Retinopathies Neuropathy Myelitis Thrombocytopenia Very rarely, Zika virus disease can cause thrombocytopenia. People with this disorder have less number of platelets which can result in bleeding, bruising and slow blood clotting.

Here’s more about thrombocytopenia or low platelet count. Click To Read!

Pregnancy loss The infection of Zika virus in pregnant women increases the chances of miscarriages, preterm birth & still birth. Alternative Therapies For Zika Virus Disease Home remedies for zika virus disease

Garlic (Lehsun): It has anti-inflammatory properties which aids in fighting Zika infection. Allicin, an ingredient of garlic boosts the immunity. It helps in the reduction of muscle pain & fever. You can simply include it in your food. It can also be taken in a powdered form.

Papaya (Papita): Papaya enhances the immunity which helps in fighting with infections. It also acts as an antioxidant.

Note: Papaya should not be consumed during pregnancy.

Vitamin C: Foods rich in Vitamin C such as strawberries & kiwi also enhances the immunity and may aid in faster recovery.

Here are 10 Vitamin C rich foods in less than Rs 5 per day. Click To Know!

Frequently Asked Questions Does Zika virus stay in the body lifelong? Am I suffering from dengue or Zika? How long should I wait to get pregnant after Zika infection or returning from a Zika-prone country? At what stage does Zika affect pregnancy? What is the status of the Zika virus vaccine? References Vector control operations framework for Zika virus, World Health Organisation, Last updated on: 29 May, 2016. Zika virus response updates from FDA, US Food and Drug Administration, Last updated on: 13 May, 2021. Treatment, Zika virus, Centre for Disease Control & Prevention, Last updated on: 21 May, 2019. Zika virus, World Health Organisation, Last updated on: 20 July, 2018. Symptoms, Testing and Treatment, Centre for Disease Control & Prevention, Last updated on: 21 May, 2019. Claudio C Cirne Santos, Natural Products Against the Zika Virus. 2020. Prevention and Transmission, Zika virus, Centre for Disease Control & Prevention, Last updated on: 24 July, 2019. Rawal, G., Yadav, S., & Kumar, R. (2016). Zika virus: An overview. Journal of family medicine and primary care, 5(3), 523–527. Prenatal care, Zika and Pregnancy, Centre for Disease Control & Prevention, Last updated on: 30 March, 2021. Prevent mosquito bites, Zika virus, Centre for Disease Control & Prevention, Last updated on: 4 December, 2019. Sexual transmission and prevention, Zika virus, Centre for Disease Control & Prevention, Last updated on: 21 May, 2019. Microcephaly and other birth defects, Zika virus, Centre for Disease Control & Prevention, Last updated on: 14 May, 2019. Sharp TM, Muñoz-Jordán J, Perez-Padilla J, Bello-Pagán MI, Rivera A, Pastula DM, Salinas JL, Martínez Mendez JH, Méndez M, Powers AM, Waterman S. Zika virus infection associated with severe thrombocytopenia. Clinical Infectious Diseases. 2016 Nov 1;63(9):1198-201. Try these natural solutions to deal with Zika virus, The Health site.com, Last updated on: 7 October, 2018.

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Zinc deficiency Overview Zinc is a micronutrient that plays an important role in various bodily functions such as reproduction, immune function, and wound repair. It is also necessary for the growth and development of fetus during pregnancy, childhood, and adolescence.

Zinc deficiency refers to the low levels of zinc (less than 0.66 to 1.10 mcg/ml) in the body. The deficiency of zinc can be congenital (present from birth) or acquired.

Zinc can not be synthesized by our body, so it has to be taken from outside sources. The recommended dietary allownace (RDA) of zinc varies from 3 mg/day in children to 8 mg/day and 11 mg/day in women and men respectively. However, it is higher in pregnant and lactating women.

Its deficiency can be easily reversed by consuming foods rich in zinc such as oysters, red meat, poultry, dairy products, legumes, beans, cashews, chia seeds, and pumpkin seeds. In case of severe deficiency, supplements may be prescribed by your doctor. Key Facts Usually seen in All age groups but more common in children Body part(s) involved Whole body Mimicking Conditions Hypothyroidism Depression Iron deficiency Vitamin B12 deficiency Folate deficiency Vitamin D deficiency Vitamin A deficiency Necessary health tests/imaging Blood tests: Zinc level, Oral zinc tolerance tests & Zinc dependant enzymes Urine tests Hair analysis Treatment Diet Supplementation Specialists to consult General physician Internal medicine specialist Gynecologist Symptoms Of Zinc Deficiency

The symptoms of zinc deficiency start appearing after months of having low levels of zinc. The symptoms vary as per the levels of zinc and are non-specific, often resembling other medical conditions. Therefore, it is necessary to conduct a medical examination for confirmation.

People with zinc deficiency may experience: Skin rash Skin ulcers Hair loss Diarrhea Frequent cold and infections Weight loss Delayed wound healing Decrease in the sense of smell or taste Loss of appetite Eye and skin lesions Vision problems Mental lethargy Hypogonadism (in males) Impotence

In children and adolescents there can be: Growth retardation Delayed puberty Difficulty in learning Did you know? Zinc plays a crucial role in the formation of testosterone, a male sex hormone. Due to which, lack of zinc can also cause erectile dysfunction (ED). Read more about erectile dysfunction in detail. Tap To Read! Causes Of Zinc Deficiency Zinc deficiency is mostly seen in developing and underdeveloped countries due to malnutrition. However, cases are also seen in developed countries as a result of various chronic illnesses. Zinc deficiency can be acquired or congenital. Acquired zinc deficiency

The main causes of acquired zinc deficiency can be: Decreased intake of zinc Decreased absorption of zinc Increased demand of zinc Excessive loss of zinc

1. Decreased intake of zinc Inadequate intake of zinc is mostly related to: Low intake of zinc rich foods Strict vegetarian diets Parenteral nutrition Anorexia nervosa (eating disorder)

Vegetarians mostly have low levels of zinc because the body has the tendency to extract zinc from meat more efficiently. Eldery people also suffer from zinc deficiency because of limited access to certain foods.

1. Decreased absorption of zinc A person may also have zinc deficiency even if he/she is taking adequate amounts of zinc. This can be due to the excessive consumption of certain food items or medications which can hinder the absorptions of zinc, and presence of certain disorders. These include: Phytates containing foods such as legumes, seeds, soy products, and whole grains Oxalates containing foods such as spinach, okra, nuts, and tea Calcium and phosphates containing foods such as dairy, nuts and seeds Medications such as thiazide diuretics (chlorthalidone or hydrochlorothiazide), sodium valproate, antibiotics, and penicillamine Diseases such as Crohn’s disease, short bowel syndrome, hookworm infestation and pancreatic insufficiency
2. Increased demand of zinc The demand of zinc increases during pregnancy and lactation as it is required in the growth and development of the baby. The demands of the body increases as below: Pregnant women (18 years of age and younger): 12 mg per day Pregnant women (19 years of age and older): 11 mg per day Breastfeeding women (18 years of age and younger): 13 mg per day Breastfeeding women (19 years of age and older): 12 mg per day

Zinc, if not taken in adequate amounts during pregnancy and breastfeeding, can cause certain fetal defects and low birth weight.

Are you eating the right type of food during pregnancy? Read in detail about various foods that should be eaten and avoided for a healthy pregnancy. Tap To Read!

1. Increased loss of zinc In some cases, there can be excessive loss of zinc from the body which can also be a cause of zinc deficiency. This includes: Dialysis Hemodialysis Hemolysis Diarrhea Urinary loss (due to diuretics or alcohol use) Congenital zinc deficiency

Although zinc deficiency is commonly caused by dietary factors, several inherited conditions have also been found. Acrodermatitis enteropathica is one of the common inherited condition seen in humans.

Acrodermatitis enteropathica: It is a rare form of zinc deficiency.which causes impaired absorption of zinc. It occurs in both congenital and acquired forms. The congenital form results from intestinal disorders due to genetic abnormality, whereas the acquired forms can result due to: Lack of secretion of zinc in the breast milk After surgery of intestine Adopting special intravenous nutritional programs Risk Factors For Zinc Deficiency

People with gastrointestinal disease There is a decrease in the absorption of zinc in people suffering from gastrointestinal disease such as ulcerative colitis, Crohn’s disease, and short bowel syndrome. People with these diseases or those who have undergone gastrointestinal surgery are more prone to zinc deficiency. Certain diseases Some diseases may decrease the zinc absorption and increase the loss of zinc, making the patient vulnerable to zinc deficiency. These include sickle cell anemia, chronic kidney disease, liver disease, chronic diarrhea, HIV infection, diabetes, malabsorption syndrome and cancer. Vegetarians The absorption of zinc from vegetarian diets is less than non-vegetarian diets. Also, the food consumed by vegetarians mostly contains phytates that inhibit the absorption of zinc. Due to this, vegetarians are at a higher risk of developing zinc deficiency.  
Pregnant and breastfeeding women Zinc is required for fetal growth and development. Pregnant and breastfeeding women are at high risk of zinc deficiency due to high fetal demand during this phase. Alcoholics About 30-50% of people who consume alcohol suffer from zinc deficiency as alcohol decreases the absorption of zinc and increases its excretion in urine. Malnutrition Zinc is a micronutrient that cannot be synthesized by the body. It has to be taken from outside sources. People living in developing or underdeveloped countries have a limited access to thsese food which increase the risk of zinc deficiency. Consuming excessive fiber An adequate amount of fiber in the diet is very essential for a healthy digestive system. But, excessive consumption of fiber can also hamper the absorption of essential nutrients such as zinc. Old age The elderly people especially above 75 years of age are at a higher risk of having zinc deficiency. This is because of slow metabolism, poor appetite, and less diversification in the diet. Stress Prolonged stress is also found to reduce the levels of zinc in the body. Exclusively breastfed older infants Breast milk provides 2 mg/day of zinc which is sufficient only for initial 4-6 months. The dietary requirement for zinc for the older infants aged 7-12 months increases. At this age, if the infant is only having breast milk they can suffer from zinc deficiency. Did you know? A woman won’t always have milk immediately after delivery. It usually takes 3-4 days for a normal flow of milk to start if you are a first-time mum. Read some more interesting facts about breastfeeding. Read Now! Diagnosis Of Zinc Deficiency

Blood tests

Zinc level: This test checks the amount of zinc in the blood which does not necessarily reflect its level within the cells. Zinc deficient people can have normal zinc levels in the blood. The level also varies as per circadian rhythm, drugs and meals taken. It is usually high in the morning and low in the evening. The normal range is 0.60-1.20 mcg/mL for children and 0.66-1.10 mcg/mL for adults.

In the presence of zinc deficiency, the absorption of copper is increased. Alongwith the serum level of zinc, levels of copper and serum copper/zinc ratio is also measured. Serum copper level over 120g/dl and a serum copper/zinc ratio of 1.5 also indicate zinc deficiency.

Additionally, several blood tests are also done to rule out other conditions or vitamin deficiencies. These include: Complete blood count (CBC) Serum electrolytes

Oral zinc tolerance test: In this test, the levels of zinc are measured after administering zinc. This test helps to detect zinc deficiency caused due to decreased absorption of zinc in the body.

Zinc dependent enzymes: The activities of various zinc-dependent enzymes are also measured to assess zinc deficiency. Alkaline phosphatase, carboxypeptidase, and thymidine kinase are three such enzymes. A quantitative measurement of these enzymes also gives an idea of zinc deficiency. Urine tests The excretion of zinc in urine is decreased as a result of zinc deficiency. The determination of zinc in a 24-hr urine sample also helps in diagnosing zinc deficiency. However, this is not a reliable method for determining acute cases of zinc deficiency. Hair analysis Zinc level is also measured in hair. Chronic zinc deficiency is reflected more accurately in hair than in blood. Brittle nails and hair loss can be a sign of vitamin deficiency A vitamin deficiency occurs when the body fails to absorb or doesn’t get the essential vitamins from the diet. This is when you may need to supplement your diet with vitamins to meet the body’s requirements and lead a healthy life. Look out for more symptoms of vitamin deficiency and get your vitamins checked. Click To Read! Specialist To Visit

Although zinc deficiency is not an emergency condition, you may consult the doctor in case you: Have nausea Have consistent headache Experience unconsciousness Have diarrhea from several days

If you are pregnant or breastfeeding, and suspect deficiency of zinc, consult your doctor immediately as zinc plays an important role in the growth and development of the fetus and newborn baby.

Specialists you may consult are: General physician Internal medicine specialist Gynecologist (in case of pregnancy and breastfeeding women)

If you are noticing any symptoms of zinc deficiency, seek advice from our world-class medical professionals. Consult Now! Prevention Of Zinc Deficiency

Zinc deficiency can be easily prevented by taking the recommended amount of zinc either through dietary sources or supplements. Oysters contain the maximum amount of zinc per serving compared to any other food. Beef, red meat, poultry, and certain types of seafood (such as crab and lobster) also have a good amount of zinc. Many grains, plants and dairy based foods are also good sources of zinc. These include oats, legumes, chickpeas, beans, cashews, almonds, peas, chia seeds, and pumpkin seeds.

Note: However, some food items such as whole-grain breads, cereals, legumes contain phytates, which inhibit the absorption of zinc. Thus, the amount of zinc absorbed from grains and plant based foods is lower than that from animal based foods.

The best way to prevent zinc deficiency is to add foods that are rich in zinc. Here are some common and naturally available food items and their zinc content. Click To Read! Treatment Of Zinc Deficiency

Patients suffering from zinc deficiency can manage it by increasing the intake of zinc through diet. If dietary modifications fail to show any improvement in your condition, your doctor might recommend supplementation.  
1. Supplementation The treatment of zinc deficiency usually begins with oral supplementation which has proven to reduce the symptoms. The recommended daily intake of zinc is: 3 mg/day for children less than 4 years 5 mg/day for children between 4 to 8 years 8 mg/day for children between 9 to13 years 11 mg/day for men 9 mg/day for women (non-pregnant and non-lactating) 11 to 12 mg/day for pregnant women

Higher doses of zinc (more than 50 mg/kg) is required in patients who have severe deficiency. It is mostly needed in patients having chronic illnesses such as Crohn’s disease and short bowel syndrome. High levels of zinc can interfere with copper and iron metabolism, so it is important to monitor the levels of zinc regularly in the patients taking zinc supplements. Supplements are taken for a lifetime in a condition called acrodermatitis enteropathica.

Zinc supplements are available in the form of: Zinc sulfate Zinc acetate Zinc aspartate Zinc orotate Zinc gluconate

Parenteral zinc supplementation is recommended in rare cases such as intestinal failure or if the patient is on total parenteral nutrition (TPN). Interactions of zinc supplementation with medications Zinc supplements can interact with several types of medications. Patients on zinc supplementation should discuss the intake of these medications with their health-care provider for dose adjustment. Antibiotics: Antibiotics such as quinolone & tetracycline antibiotics inhibit the absorption of zinc. It is advised to take these antibiotics at least 2 hours before or 4–6 hours after taking a zinc supplement to minimize this interaction. Penicillamine: Penicillamine is a drug used to treat rheumatoid arthritis. It also reduces the absorption of zinc. Patients should take zinc supplements at least 2 hours before or after taking penicillamine to reduce the interaction. Diuretics: Some diuretics such as chlorthalidone and hydrochlorothiazide increase urinary zinc excretion. Prolonged use of these diuretics may affect the zinc levels adversely. So, the zinc status should be carefully monitored in patients who are on diuretics. Complications Of Zinc Deficiency

1. Age-related macular degeneration (AMD): AMD is an eye disorder that causes vision loss. Studies suggest that zinc supplements help in the slow progression of AMD.
2. Growth failure: Since zinc is required for normal growth and development of the child, a low level of zinc for a long period of time can hamper its overall growth and development.
3. Skin problems: Skin complications associated with zinc deficiency include acrodermatitis enteropathica, cheilitis, and dermatitis.
4. Diabetes mellitus and obesity: A prolonged and severe zinc deficiency is also associated with an increased risk of diabetes and obesity. The exact mechanism behind this correlation is not known.
5. Attention deficit hyperactivity disorder (ADHD): Zinc deficiency in children can cause ADHD in children. ADHD is accompanied by lack of activity and impaired socialization in children.

Read more about other causes, symptoms and management of ADHD.

Other complications associated with zinc deficiency are: Delayed wound healing Recurrent infections such as pneumonia and malaria Low bone mineral density Hypogonadism Herpes simplex virus infections Wilson’s disease HIV infection Acne Diarrhea

Zinc has antioxidant properties which protect from free radicals. Low levels of zinc also increases the risk of cancers and heart disease.

Note: Maternal zinc deficiency during pregnancy can cause abortion, preterm bith, still birth and fetal neural tube defects. Babies born to such mothers have low birth weight. Is there any relation between zinc deficiency and COVID-19? Zinc also possesses antiviral and antiinflammatory properties. Deficiency of zinc may reduce the immunity (the ability of the body to fight infections). People with low levels of zinc are more prone to coronavirus infection. Zinc supplementation is hence used as an adjuvant therapy in faster recovery, treatment and prevention of COVID-19 because of its following potential benefits. Zinc helps by: Restricting the entry of virus in the body Inhibiting multiplication of the virus Modulating immune response

To know more about COVID-19, its treatment & latest updates/news, check out our coronavirus section. Click To Read!

Alternative Therapies For Zinc Deficiency

Home remedies 1. Holy basil (Tulsi): It is considered as the “Queen of herbs” in Ayurveda. It contains zinc along with Vitamin A and C, calcium, and iron.

1. Indian pennywort (Brahmi): It is an Ayurvedic herb that is rich in zinc. It is known to exhibit antioxidant properties which helps in increasing memory, concentration, and brain power.
2. Asparagus racemosus (Shatavari): It is known for its fertility properties but it is also a very good source of zinc. It contains 0.54 mg zinc per 100 gm serving. It boosts immunity and also helps to fight stress, anxiety, and depression.
3. False daisy (Bhringraj): It is known for its moisturizing and nourishing properties. It is also a source of zinc along with other micronutrients such as copper, sodium, iron, and potassium. Homeopathy Several homeopathic medications such as Zincum aceticum and Zincum metallicum are also available for zinc deficiency. Living With Zinc Deficiency

Zinc deficiency can be easily reversed through proper supplementation and diet. You can keep the following points in mind while managing zinc deficiency. Cook your food wisely Changing the way of cooking certain foods can increase the absorption of zinc. For example soaking beans before cooking or leavening foods can lower the phytates concentration, making it easier for the body to process zinc. Consult a doctor A person having zinc deficiency can have other nutritional deficiencies. Consult your doctor as soon as you notice any other symptoms of nutritional deficiencies. Be cautious of toxicity Overdose of zinc supplements can also cause toxicity and lead to symptoms such as nausea and vomiting. To avoid this, zinc supplements should always be taken as per your doctor’s recommendation. The dose of zinc varies as per your age and other conditions such as pregnancy and breastfeeding. The patients who are on zinc supplements should get their zinc level tested every three months. Do not self medicate Before taking any zinc supplement, talk to your doctors as the dose varies as per your medical condition. The dose also varies, if you are on some other medications. Avoid certain foods The foods that are high in calcium and phosphorus such as milk, cheese, yogurt, dried beans, lentils, and nuts delay the absorption of zinc. So, avoid taking zinc supplements with such food items. Be aware of allergy Some patients taking zinc supplements can have allergy reactions which can be experienced as: Hives Difficulty in breathing Swelling of face, lips, tongue, and throat Upset stomach

Consult your doctor immediately, if you have any of these symptoms. Manage the interactions with medications Certain medications such as antibiotics, penicillamine, and chlorthalidone can reduce the absorption of zinc in the body. It is very important to discuss all the dietary supplements and medications you are already taking before initiating zinc therapy. Frequently Asked Questions Who is at increased risk of zinc deficiency? What are the food sources of zinc for vegetarians? How much zinc is required by the body? For how long do you take zinc supplements? References Zinc, National Institute Of Health, Updated on: 7th December, 2021. All you need to know about zinc deficiency, Medical News Today, Updated on: 22nd December, 2017. Acrodermatitis Enteropathica, Rare Disease Database, Updated On: 18th Sep, 2019. Yanagisawa H. Zinc deficiency and clinical practice. Japan Medical Association Journal. 2004 Aug;47(8):359-64. 4 Herbs With Zinc To Better Your Immune Response, SriSRi Tattva.

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Cholera Overview Cholera is an acute diarrheal infection that is caused by ingesting food and water contaminated by bacteria Vibrio cholerae.

Signs and symptoms of cholera infection include a rapid onset of massive diarrhea (rice water appearance), dehydration, vomiting, irritability, low blood pressure, and rapid heart rate amongst others.

Maintaining adequate hydration through oral or iv rehydration solutions (ORS and Ringer lactate solution) is the cornerstone approach of the treatment. Antibiotics are prescribed in severe cases once the hydration status is maintained.

Preventive measures include maintaining proper hand hygiene, drinking safe water and consuming non-contaminated foods. Oral cholera vaccine is also available but its use is usually limited to areas of cholera outbreaks. Causes Of Cholera

Cholera is caused by a bacteria called Vibrio cholerae. There are approximately 200 strains of this bacteria. However, only two strains i.e O1 and O139 are known to be associated with cholera outbreaks. Both strains cause the same level of illness.

Where are these bacteria found? The bacteria are usually found in water that is contaminated with feces of an infected person. These bacteria are also found in the rivers that have saline water as they grow best in the presence of salt.

What is the mode of transmission? Cholera can be transferred from person to person by infected fecal matter entering the mouth or via water or food contaminated with Vibrio cholera bacteria.

What are the common sources of cholera infection in a community? Drinking water from sources such as unprotected wells, boreholes, and standpipes contaminated by feces during transportation or supply Food, drinks, and ice made from contaminated water Cooking and eating in utensils washed in contaminated water Food that is stored for a long period of time at room temperature Seafood especially crustaceans and shellfish grown in contaminated water Raw fruit and vegetables that are irrigated with water containing human waste or rinsed with contaminated water

Is cholera contagious? Cholera usually does not spread through direct physical contact. However, during outbreaks, it becomes highly contagious. It can spread indirectly and directly due to widespread fecal contamination of food, water, and items like contaminated bedding, clothing, utensils etc.

What does bacteria do inside the body? All individuals are not affected by the bacteria as the majority are killed by gastric acid. In case, bacteria survive, it forms colonies in the small intestine. These colonies produce cholera toxin which is responsible for most of the symptoms. Symptoms Of Cholera

Cholera is asymptomatic in most of the individuals. However, even the asymptomatic individual can shed the bacteria into the environment through their feces for up to 10 days.

The majority of individuals who develop symptoms often have mild to moderate manifestations. The incubation period (the period between exposure to an infection to the appearance of the first symptom) can range from 12 hours to 5 days.

The classical symptom of cholera is massive and smelly diarrhea which is termed as “rice water stool”. The term is coined due to its similarity with the water in which rice is washed.

The various signs and symptoms of cholera infection include: Acute watery diarrhea Fishy smell from stools Dehydration Vomiting Thirst Leg cramps Restlessness or irritability Muscle cramps Sleepiness and Tiredness Dry mouth Wrinkled skin Rapid deep breathing Rapid heart rate Fever (rarely seen and indicates some secondary infection) Hypoglycemia (mostly observed in children) Low blood pressure

Other signs and symptoms that may occur in severe cases, include the following: Sunken eyes Low or no urine output Skin pinch goes back very slowly Lethargic or unconscious Absent or weak pulse Respiratory distress Seizures Shock

Here are some tips that help prevent dehydration in diarrhea! Read Along

Risk Factors For Cholera

Several social, environmental, and biological risk factors can increase the risk of cholera. They are discussed as follows: 1. Poor sanitation Lack of access to clean water and poor disposal facilities of feces increases the risk of cholera transmission. Approximately 97% of cholera cases are seen in countries having the lowest level of water and sanitation services in the year between 2010 to 2021. 2. Open air defecation Open-air defecation is associated with an increased risk of surface water contamination and hence more risk of waterborne diseases like cholera. 3. Source of water supply People using improved (piped household, protected well or spring, or collected rainwater) water supply is at a lesser risk of contracting cholera. 4. Monsoon Season The risk of contracting cholera is high during monsoons. This is because of the contamination of drinking water by sewage or polluted water bodies.

Here are some common monsoon diseases according to their modes of transmission with invaluable monsoon health tips to keep in mind. Tap To Know 5. Improper hand hygiene Avoiding handwashing with soap and water after toileting, before eating, and during handling food increases the risk of transmission of cholera bacteria.

Here are 5 simple hand hygiene tips. Tap To Know 6. Certain Medications Cholera bacteria are not able to survive in the acidic environment of the stomach. So, individuals that are on any acid-neutralizing therapy such as proton pump inhibitors and antihistamines are at higher risk of infection. Such medications are also known to be associated to increase the severity of symptoms. 7. Consuming Seafood Individuals who consume raw or partially cooked seafood, crabs or shellfish, dried fish, and seafood salad have more chances of contracting cholera. Here are some fish oil supplements that help fulfilling your needs without increasing the risk of waterborne disease. Order Now 8. Bottle feeding Studies suggest that bottle-fed infants and children are more prone to infection than ones breastfeeding. This is due to the lack of exposure to contaminated bottle feedings for breastfed infants. Breastfeeding also provides protective functions that boost immunity to fight infections. Most cases of cholera are seen in infants aged 6 to 11 months who are on their weaning journey. 9. Achlorhydria Individuals having a condition called achlorhydria – the absence of hydrochloric acid in digestive stomach juices are more prone to contracting cholera. This is because cholera bacteria grow rapidly in a low acidic environment. 10. Vitamin A deficiency The deficiency of Vitamin A is also associated with an increased risk of cholera. 11. Human immunodeficiency virus (HIV) infection Studies suggest an increased risk of infection in people with HIV due to low immunity. 12. Socioeconomic status People with low incomes are more prone to cholera due to a lack of access to clean water. People are at high risk of cholera include: Healthcare personnel treating cholera patients Cholera response workers Travelers in an area of active cholera transmission

Did you know? There is a strong link between cholera and the human O blood group. The blood group O does not increase the risk of cholera but it impacts the severity of the disease. This association is proved by several previous outbreaks. In 1991 during an outbreak in Peru, the number of hospitalized patients was more with blood group O. Similarly, the Ganges delta has very less cases of cholera during outbreaks due to the low prevalence of people with blood group O. Diagnosis Of Cholera

The diagnosis of cholera is important as it may turn into a widespread outbreak. It cannot be distinguished from any other infection-causing watery diarrhea without testing a stool sample. Stool culture It is the most widely used method for the diagnosis of cholera. In this, stool samples are incubated with a solution that isolates the bacteria from it. The appearance of yellow clumps indicates cholera. The exact strain of bacteria is identified through further testing. This confirmatory test is helpful in differentiating cholera from other bacterial, protozoa, or viral causes of dysentery. Darkfield microscopy It involves an examination of stools under a dark field microscope. It is a rapid method. The vibrio-shaped cells with motility indicate cholera bacteria. Dipstick test This test is often used in endemic areas. It involves placing a dipstick strip into a sample of stool. The two red lines on the dipstick confirm the presence of cholera. It takes between 2 and 15 minutes for the test to make a diagnosis. The sensitivity and specificity of this test is not optimal. That is why, the fecal specimens should always be confirmed using culture-based methods. Prevention Of Cholera

Cholera is a preventable disease. There are several measures that can be taken at an individual and community level to prevent the outbreaks.

1. Preventing cholera at an individual level Ensure safe drinking water Drink only filtered or boiled water Use filtered or boiled water to prepare food, brush teeth, and make ice Avoid using water bottles without a seal Store water in a clean and covered container Maintain hand hygiene Cholera can be prevented by following basic hand hygiene. It is advised to thoroughly wash the hands with soap and water: After using the washroom Before, during and after preparing food Before and after eating food Before and after feeding your children After changing your child’s diaper or washing their stools After taking care of someone suffering from cholera Note: In case soap and water are not available (as in traveling), alcohol-based hand rub with at least 60% alcohol can be used.

Buy sanitizers and hand wash from the comfort of your home. Shop Now Be cautious while using a washroom Use toilets to get rid of the feces instead of open defecation Dispose off the used diapers of children in toilet In case a toilet is not available, pee or poop at least 30 meters away from any body of water. Cook and consume food vigilantly Prepare food in filtered or boiled water Wash fruits and vegetables with filtered or boiled water Consume fruits and raw vegetables after peeling Cook food thoroughly especially seafood such as shellfish that has the maximum chances of contamination. Eat hot food Maintain cleanliness Clean kitchen surfaces and utensils thoroughly with soap and water Use kitchen utensils and surfaces to cook food after drying Wash clothes 30 meters away from drinking water sources Disinfect any stool contaminated surfaces with household bleach

1. Preventing cholera at community level A multifaceted community approach involving the following helps to mitigate the risk of cholera:

Implementing WaSH Services Almost all cases of cholera arise due to poor access to safe drinking water and inadequate sanitation. WaSH is an acronym that stands for water, sanitation and hygiene. Availability of adequate and safe water and effective solid and liquid waste management plays a major role in decreasing the risk of contracting cholera.

Promoting surveillance Since cholera is a highly infectious disease, close monitoring of the cases by the government agencies at local level helps in preventing the outbreaks. It should be a part of a disease surveillance system that involves the sharing of information at global level. Any clinically suspected individual should be tested for cholera. Detection can be done using rapid diagnostic tests (RDTs) where positive cases indicate a cholera alert. It aids as a tool to control the cases by implementing the preventive strategies early.

Engaging community The local or central government should launch effective and engaging programmes with an aim to prevent cholera at mass scale. People and communities are a part of the process of developing and implementing strategies. The aim of the programmes are educating people about the: Basic hygiene measures such as handwashing with soap Sanitation interventions such as safe disposal of feces of the children Safe preparation and handling of food Risk and symptoms of cholera Funeral practices for individuals who die from cholera to prevent infection among attendees.

Provision of Vaccination The cholera vaccines are available in oral dosage form and denoted as oral cholera vaccine (OCV). The World Health Organisation (WHO) suggests using these vaccines in the cholera endemic areas. All three vaccines require two doses for full protection. Dukoral: This vaccine is given along with a buffer solution. It can be given to all the individuals that are over 2 years of age. The time duration between the two doses is 7 days to 6 weeks. This vaccine (2 doses) provides protection for 2 years. Shancol and Euvichol: They have the same composition. Both of these vaccines are given without a buffer solution. Individuals over one year of age can take this vaccine. While, a two-dose OCV, has obtained license for use in India, mass vaccination covering the entire population in the country has not been implemented as of yet. This is due to factors like Cholera has a tendency of localized outbreaks Mortality due to cholera has considerably reduced over time due to increasing use of oral rehydration salt solution Specialist To Visit

Individuals should consult the doctor immediately in case of any symptoms of watery diarrhea or returning from any cholera-endemic country.

The doctors that might help include: General physician Internal medicine specialist Gastroenterologist Pediatrician

A general physician will examine your symptoms and initiate treatment. In case of severe cases, they may refer you to an Internal Medicine specialist who provides comprehensive care for adult patients, managing complex cases and addressing underlying health conditions. Gastroenterologists can also be consulted as they have expertise in diagnosing and treating gastrointestinal disorders like cholera. A pediatrician can be consulted for medical treatment and preventive healthcare services for children and adolescents.

Consult India’s best doctors online. Click Here Treatment Of Cholera

The success of cholera treatment depends upon the time to initiate the treatment. Prompt treatment reduces the risk of severe dehydration and its complications. The main aim of the therapy is to restore the hydration status of the patient, combat infection and support overall recovery. 1. Rehydration The goal of the therapy is to maintain normal hydration status by replacing ongoing losses. Immediate administration of oral rehydration solution (ORS) is recommended. Make ORS in sterile water (previously boiled or chlorine treated) ORS should be taken sip by sip frequently

Interesting fact! The approximate amount of ORS (in milliliters) needed over 4 hours can also be calculated by multiplying the patient’s weight in kg by 75. In case ORS is not available, drink water, broth, and/or other fluids Avoid taking sugary drinks such as juice, soft drinks, or sports drinks as they could worsen diarrhea ResoMal should be given instead of ORS in severely malnourished people Breastfeeding should be encouraged for infants Explore our wide range of oral rehydration solutions (ORS). Buy Now! 2. Intravenous (I.V). Fluids The severely dehydrated individuals (fluid loss greater than 10% of body weight) are prone to shock. Such patients need rapid administration of intravenous fluids to compensate the fluid loss.

1. Antibiotics Antibiotics therapy is initiated once an appropriate volume status has been achieved. They are known to reduce the duration and severity of diarrhea. The use of antibiotics is associated with reducing the volume of stool by 50%. Studies also suggest that antibiotics reduce the duration of shedding of bacteria in stool. The common examples of antibiotics used are Tetracycline Doxycycline In case of antibiotic resistance, the following antibiotics may be prescribed Ciprofloxacin Azithromycin Erythromycin

The antibiotic therapy is usually given for about 3-5 days.

Note: Tetracycline is not recommended in pregnant women and children under 5 years of age because it causes permanent discolouration of teeth. 4. Zinc In cholera, zinc deficiency can lead to reduced water and electrolyte absorption. Therefore, zinc plays an important role in recovery from the symptoms. Zinc combined with ORS reduces the duration, severity, and recurrences of episodes of diarrhea. 5. Nutritional interventions It includes taking a high-energy diet immediately after initial restoration of fluids. It helps in preventing malnutrition and several other complications such as hypokalemia (reduced level of potassium) and hypoglycemia (low blood glucose). Complications Of Cholera

Most of the complications develop due to severe volume depletion in the body. The fluid loss can reach up to 1 liter per hour in adults and 20 ml/kg/hr in children. This can lead to complications like: Hypovolemic shock Metabolic acidosis (build up of acid in the body due to imbalance in the acid base balance as a result of electrolyte loss) Hypotension (low blood pressure) Hypoglycemia (low blood glucose)

Keep a tab of your blood glucose from the comfort of your home. Order Now In rare cases, the severe hypotension can even lead to: Stroke Kidney dysfunction Persistent vomiting can lead to aspiration pneumonia (condition in which food or liquid is breathed into the airways of lungs, instead of being swallowed) Frequently Asked Questions Where in the world are we seeing cholera outbreaks? What makes a country cholera-endemic and epidemic? Does past infection with cholera make a person immune? Who is most susceptible to cholera? Key Facts Usually seen in Children below 5 years of age Gender affected Both males and females Body part(s) involved Small intestine Large intestine Mimicking Conditions Escherichia coli infection Salmonellosis Shigellosis Typhoid fever Rotavirus infection Necessary health tests/imaging Stool culture Dark Field microscopy Dipstick test Treatment Rehydration: Oral rehydration solution and I.V. fluids Antibiotics: Tetracycline, Doxycycline, Azithromycin, Ciprofloxacin, and Erythromycin Zinc Nutritional interventions Specialists to consult General physician Gastroenterologist Internal medicine specialist Pediatrician References Cholera, World Health Organisation, Last Updated On: 30th March, 2022. Cholera Workup, Medscape, Last Updated On: 03 February, 2021. Harris JB, LaRocque RC, Qadri F, Ryan ET, Calderwood SB. Cholera. Lancet. 2012 Jun 30;379(9835):2466-2476. doi: 10.1016/S0140-6736(12)60436-X. PMID: 22748592; PMCID: PMC3761070. Richterman A, Sainvilien DR, Eberly L, Ivers LC. Individual and Household Risk Factors for Symptomatic Cholera Infection: A Systematic Review and Meta-analysis. J Infect Dis. 2018 Oct 15;218(suppl\_3):S154-S164. doi: 10.1093/infdis/jiy444. PMID: 30137536; PMCID: PMC6188541. PAHO: Breastfeeding helps protect babies from cholera, PAN American Health Organisation, Last Updated On: 18 November 2010. Gunn RA, Kimball AM, Pollard RA, Feeley JC, Feldman RA, Dutta SR, Matthew PP, Mahmood RA, Levine MM. Bottle feeding as a risk factor for cholera in infants. Lancet. 1979 Oct 6;2(8145):730-2. doi: 10.1016/s0140-6736(79)90653-6. PMID: 90813. Cholera is endangering children globally, UNICEF, for every child. Cholera , PAN American Health Organisation. Cholera - Vibrio cholerae infection, Centers For Disease Control and Prevention, Last Updated On: 14 November, 2022. Fanous M, King KC. Cholera. [Updated 2023 May 23]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls. Dick MH, Guillerm M, Moussy F, Chaignat CL. Review of two decades of cholera diagnostics–how far have we really come?. Cholera, World Health Organisation, Last Updated On: 25 August 2017, Section 8: Reducing the spread of cholera in the community, Global task force on cholera control. Komuro A. Kampo Medicines for Infectious Diseases. Japanese Kampo Medicines for the Treatment of Common Diseases: Focus on Inflammation. 2017:127–42. doi: 10.1016/B978-0-12-809398-6.00014-7. Epub 2017 Mar 31. PMCID: PMC7150106.

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Colon cancer Also known as Colorectal cancer, Bowel cancer and CRC Overview Colon cancer is a condition in which there is an uncontrolled growth and multiplication of cells in the colon (large intestine). The colon is the lower and final part of the digestive tract where the body draws out water and salt from solid waste. The waste then moves through the rectum and exits the body through the anus.

Common risk factors for colon cancer include advanced age, a family history of colon cancer, colon polyps, and long-standing ulcerative colitis. Most colon cancers develop from polyps lining the colon. While the polyps are initially non-cancerous and harmless, over a period of time they can develop into cancer.

Colon polyps and early cancer may have no cancer-specific early signs or symptoms. Therefore, regular colorectal cancer screening is important. Diagnosis of colon cancer is done by colonoscopy, which visualizes the entire colon along with biopsy, which confirms the cancerous tissue.

The treatment and prognosis of colon cancer depends on the location, size, stage and extent of cancer spread, as well as the overall health of the patient. In early stages of colon cancer, the tumor is removed through surgery. If not treated at the right time, it can spread to other parts of the body, especially the lungs and liver. The treatment in advanced stages involves chemotherapy, radiation therapy, immunotherapy and/or their combinations. Key Facts Usually seen in Adults above 50 years of age Gender affected Both men and women but more common in men Body part(s) involved Colon Rectum Mimicking Conditions Hemorrhoids Crohn’s disease Ulcerative colitis Arteriovenous malformation Carcinoid tumors Gastrointestinal lymphoma Ischemic bowel disease Ileus Small intestine carcinoma Small intestine diverticulosis Necessary health tests/imaging Stool based tests Colonoscopy Flexible sigmoidoscopy CT colonography Biomarker test Biopsy Ultrasound Magnetic resonance imaging (MRI) Blood tests Chest X ray Treatment Surgery Ablation technique: Radiofrequency ablation, Microwave ablation & Cryoablation Chemotherapy: 5-Fluorouracil (5FU), Leucovorin & Oxaliplatin Radiation therapy Targeted therapy: Bevacizumab, Cetuximab, Regorafenib & Encorafenib Immunotherapy: Ipilimumab, Pembrolizumab & Nivolumab Specialists to consult Oncologist Radiation oncologist Oncosurgeon Colorectal surgeon See All Symptoms Of Colon Cancer

Colon cancer always doesn’t have symptoms. Therefore, regular screening is very important for early diagnosis. If symptoms persists, they may include:

Abdominal pain Body aches Cramps Diarrhea Constipation Feeling of incomplete evacuation Unexplained weight loss Rectal bleeding or blood in the stools Tiredness or fatigue

The symptoms alone do not confirm cancer. So, it is necessary to consult the doctor in case you are experiencing any of the symptoms.

Here are some of the common signs and symptoms of cancer you need to know. Click To Know!

Causes Of Colon Cancer Every cell of the body follows a process of growth, division, and death. Cancer develops when cells multiply uncontrollably without dying. The exact cause of the abnormal multiplication of cells in colon and rectum is not known. One such reason is changes in the DNA that affects oncogenes – genes that help the cell to stay alive. Disturbance in the oncogenes predisposes the person to colon cancer.

Mostly, colorectal cancer begins as precancerous polyps. These polyps slowly develop into cancerous tissue. The early diagnosis at the precancerous stage can prevent the development of cancer.

Read about the common causes of colorectal cancer. Tap To Read!

Risk Factors For Colon Cancer There are various risk factors that are associated with an increased chance of colon cancer: Non-modifiable factors

1. Age The chances of precancerous polyps and colon cancer increases as we grow old. The average age at which colon cancer is diagnosed is 68 years and 72 years for men and women respectively. People above the age of 65 have three times more chances of having colon cancer than the people at the age of 50 to 64 years. However, sometimes even younger adults can develop colon cancer.
2. Gender and race Studies suggest that men have 30 times higher risk of developing colon cancer than women. Also, the mortality rate from colon cancer is also higher in men.

Race also determines the chances of developing colon cancer. Non-Hispanic blacks are at higher risk than Asians and non-Hispanic whites.

1. Medical history of cancer The chances of developing colon cancer are more if you have a previous history of colon cancer or polyps. People with larger polyps are more prone to develop colon cancer.
2. Health conditions Certain health conditions also increase the chances of colon cancer. This include: Inflammatory bowel diseases (IBDs): It causes inflammation in the gut and includes diseases such as ulcerative colitis and Crohn’s disease. People diagnosed with any sort of IBDs have 2-6 times higher chances of having colon cancer. The risk increases if the disease is severe and prolonged. Colon polyps: 95% of the colorectal cancer develops from polyps – tissue growths from the lining of the colon. The chances increase with large polyp size and age of the patient. Diabetes mellitus: Diabetes induces chronic inflammation which may trigger the growth of cancer cells in the colon. Cholecystectomy: It refers to the surgical removal of gallbladder. Gallbladder stores bile and releases it when required. After the removal of gallbladder, there is a continuous flow of bile acids which can damage the cells of the colon and predispose to colon cancer.
3. Genetic conditions The two most important genetic disorders that are responsible for colon cancer include: Nonpolyposis colorectal cancer (NPCC): Also known as Lynch syndrome, it is an inherited abnormality in a gene that normally repairs our body’s DNA. Familial adenomatous polyposis (FAP): It is a rare inherited disorder in which there are chances of developing thousands of polyps in the colon. It is estimated that people with a history of untreated FAP in their early life may get colon cancer by the age of 35-40 years.

Other genetic conditions include: Gardner syndrome, which is a different type of FAP Juvenile polyposis syndrome Muir–Torre syndrome, which is a variant of Lynch syndrome MUTYH-polyposis cancare Peutz-Jeghers syndrome Turcot syndrome, another variant

1. Family history It is estimated that people with first-degree (parents, siblings, and children) relatives diagnosed with colon cancer have two times higher risk of developing it. However, second and third degree affected relatives can also increase the risk. The risk increases if the relatives are diagnosed with colon cancer before the age of 60. The severity of risk depend upon:

Generational distance from the affected relative The age at which relative developed colon cancer The number of family members affected Diagnosis of other cancers such as ovarian, pancreatic, endometrial, and urinary tract in the family Modifiable or lifestyle factors

1. Unhealthy diet Since colon is a part of the digestive system, diet plays a key role in maintaining its health. Excessive consumption of saturated fats, red meat, and processed meat increases the chances of colon cancer. Diet low in fiber, fruits, vegetables, calcium, and Vitamin D also contribute to developing colon cancer.
2. Alcohol Excessive consumption of alcohol also increases the risk of colon cancer. Studies suggest that the risk of colon cancer increases by 20% in individuals having 2-3 drinks daily. The risk increases further, if you are used to drinking 4 or more alcoholic drinks in a day.
3. Smoking People who smoke have a 2 to 3 fold increased risk for developing colon cancer in comparison to non-smokers. The risk increases with the dose and time of exposure to the tobacco.
4. Sedentary lifestyle Lack of physical activity is also closely linked with colon cancer. Regular physical activity has been shown to improve immunity, reduce inflammation and stress, regulate metabolic rate and hormone levels and prevent obesity and, as a result, may help protect against cancer development.
5. Being overweight/obese Excessive weight and obesity are a known risk factor for colon cancer. Overweight/obese men and women have about 50% and 20% greater risk of developing colorectal cancer in comparison to people with normal weight, respectively.
6. Gut microbiota The gut microbiota or gut flora comprises a population of diverse microorganisms (bacteria, viruses, fungi, and protozoa) inhabiting the gastrointestinal tract. The key functions of gut microbiota is to metabolise toxins, synthesize vitamins, and defend against infection. However, change in the composition and functionality of the normal gut microbiota may lead to initiation, promotion and progression of colon cancer.

Note: It is also found that radiation therapy that focuses on the abdomen also increases the chances of colon cancer. Did you know? Excessive sugar can also put you at risk of cancer. This is because diets high in sugars may promote carcinogenesis (cancer generation) by stimulating inappropriate synthesis of insulin and insulin-like growth factor-I (IGF-I), in addition to oxidative stress and weight gain. Here’s everything you need to know in detail about the role of sugar in cancer. Click To Read! Diagnosis Of Colon Cancer The colon cancer is developed gradually in the following stages:

Stage 0 ( cancer in situ): The cancer cells are limited to the inner lining of the colon.

Stage I: The cancer cells start attacking the muscular layer of the colon or rectum.

Stage II A: Tumor starts growing into the outermost layers of the colon or rectum.

Stage II B: The tumor starts growing into the innermost layers of the colon or rectum.

Stage II C: The tumor starts spreading to the nearby tissues.

Stage III A: The tumor starts growing into the muscular layers of the intestine and starts invading the nearby 1-3 lymph nodes.

Stage III B: The tumor starts growing into the bowel wall or to surrounding organs and 1-3 lymph nodes.

Stage III C: The cancer has spread to 4 or more lymph nodes.

Stage IV A: The cancer has spread to one distant part of the body such as lungs and liver.

Stage IV B: The cancer has spread to more than one distant part of the body.

Stage IV C: The cancer has spread to the lining of the abdominal cavity.

The screening tests for colon cancer are recommended for all the individuals aged between 45-75 years. Individuals who have higher risks or are older than 75 years, should consult their doctor about their screening. The type of screening tests used usually depends on:

Preferences of the patient Medical condition of the patient Personal or family history of colorectal cancer Resources available

The common screening tests include: A. Stool based tests These tests examine the stool for any signs of colon cancer. They are easier than colonoscopy because patients can perform it at home. However, colonoscopy is recommended in case stool-based tests come positive. This include:

1. Fecal immunochemical test (FIT): This test detects the hidden blood in the stool using antibodies. The stool is collected at home using a kit provided by your healthcare provider.
2. Guaiac-based fecal occult blood test (gFOBT): This test uses a chemical known as guaiac to detect blood in the stool. The sample is collected at home using a home kit which is then evaluated in the lab. gFOBT test results are affected by the diet and some drugs. So, a person going for this test are advised to avoid the following: NSAIDs such as ibuprofen and aspirin 7 days before testing as they can give false-positive results because of their bleeding tendencies. Vitamin C either from citrus fruits or supplements 3-7 days from testing as it can interfere with the chemical used in the test. Red meat as they can give false-positive results.
3. FIT-DNA test: Also known as stool DNA test or multitarget stool DNA (MT-sDNA) test, this test combines FIT test alongwith a test that detects abnormal DNA in the stool. Colon cancer or polyps cells have DNA mutations in certain cells. This test detects these mutations along with the hidden blood in the stool.
4. Colonoscopy This test uses a long, thin and flexible tube with a camera on its end to check polyps and cancer in the rectum and the colon. During colonoscopy, abnormal tissues can also be removed. This examination requires bowel cleansing before the test. This test is also used as a follow up test and after positive screening tests to complete and confirm the screening results. It is recommended to be done once in every 10 years in the person without having any risk factors. C. Flexible sigmoidoscopy This test detects polyps and cancer in the rectum and sigmoid colon using a sigmoidoscope. A sigmoidoscope is a short tube with a camera and tool attached to it. The tool is used to remove polyps and abnormal tissues. Special preparations such as cleansing of rectum and colon are required before the test. D. CT colonography (virtual colonoscopy) This test captures the images of the entire colon using X-rays. The images are then studied by a doctor using the computer screen. Colonoscopy is usually performed to remove polyps after CT colonography, if it confirms the presence of polyps or cancer. E. Biopsy In biopsy, a small amount of tissue is studied under a microscope. The tissue can be collected either through colonoscopy or surgery. Sometimes, the tissue is taken using needle biopsy. It uses a needle to collect the tissue through the skin. CT scan or ultrasound helps to find the location of the tumor. F. Biomarker testing This test is used to detect certain genes, proteins, and other factors that are highly specific to the tumor. The test is performed on a tumor sample taken from biopsy. G. Blood test People having colon cancer often become anemic because of the continuous bleeding in the rectum and colon. A complete blood count test indicates the status of red blood cells (RBCs) in the blood. This helps in the detection of anemia.

Blood test is also used to detect the level of carcinoembryonic antigen (CEA) – a protein that indicates the spread of tumor to other parts of the body. However, it is not highly specific to cancer, so it is mostly used in the patients who are already taking the treatment. This helps in tracking the progress of the treatment. H. Magnetic resonance imaging (MRI) MRI uses a magnetic field to produce detailed images of the body using a dye. The dye helps in obtaining a clear picture of the organs. It is used to measure the tumor size and to track the location of colon cancer. I. Ultrasound Ultrasound uses sound waves to produce a detailed image of the internal organs. It is used to find the locations in which a tumor has spread. Endorectal ultrasound is most commonly used to detect how deep colon cancer has spread. J. Chest X-rays X-ray of the chest is used to detect if the colon cancer has spread to the lungs.

Apart from these diagnostic tests, some methods are also there that can help find out whether one has the cancer-causing gene. Read more about inherited cancers and the role of genetic cancer tests. Click To Read!

Specialist To Visit

Early detection of colon cancer gives more treatment options. Precancerous polyps can be easily removed before they turn into cancer. Therefore, it is very important to consult at the right time.

Regular screening and consultation is recommended for people with risk factors such as older adults (above 45 years of age). Doctors specializing in different areas of cancer treatment include: Oncologist Radiation oncologist Oncosurgeon Colorectal surgeon

To get the right diagnosis, it is important to consult the right doctor. Consult India’s best doctors online. Consult Now!

Prevention Of Colon Cancer There is no sure shot way to prevent colon cancer. However, some measures can decrease the risk of developing colon cancer that include: 1. Go for regular screening Most of the colon cancer develops from its precancerous polyps stage with no symptoms. The most effective way to prevent colon cancer is regular screening, starting from 45 years of age. This helps in the detection and removal of the polyps in its initial stage before turning into cancer. 2. Eat a healthy diet A diet low in saturated and trans fats, high in fiber such as fruits, vegetables and whole grains and rich in calcium and Vitamin D is known to be associated with decreased risk of colon cancer. Diet that includes red meat (beef, pork or lamb) and processed meat increases the risk of colon cancer. Avoiding such foods can help in the prevention of colon cancer.

Here’s more superfoods that can help in fighting cancer. Check Now! 3. Consult doctor before taking NSAIDs Do consult your healthcare provider before starting certain medications such as NSAIDs because they can cause side effects such as gastrointestinal bleeding and ulcers. However, some studies suggest that medications such as ibuprofen, naproxen, and aspirin can decrease the risk of colon cancer. 4. Maintain a healthy body weight Since, overweight and obesity are linked with colon cancer, maintaining a healthy weight through physical activity, exercise, and a good diet helps in the prevention of colon cancer.

Weight loss is 99% mental and 1% physical. Start your journey today. Click Here! 5. Quit alcohol and smoking Long term use of alcohol and smoking is associated with an increased risk of cancers. Quitting both can help in the prevention of colon cancer as well as some other types of cancers such as lung cancer, mouth cancer, etc.

Tobacco is injurious to health. Say no to tobacco. Try our smoking cessation product range. Check Out! 6. Increase the intake of vitamins and minerals Some studies suggest that vitamins and minerals such as folic acid, Vitamin D, calcium, and magnesium decrease the chances of colon cancer. One can prevent colon cancer by taking foods rich in these nutrients such as milk, cheese, and eggs.

There are certain myths associated with cancer such as cancer always ends up with the death of the patient. Watch the video by our expert as he debunks more myths of cancer.

Treatment Of Colon Cancer

There are various treatment options for colon cancer which are given considering the risk factors, stage of colon cancer, side effects, and age of the patient. The treatment options include: 1. Surgery It includes removal of cancer through an operation. It is one of the most commonly used methods in all the stages of colon cancer. It can be performed in either of the two ways: Local excision: In this, the tumor is removed through the tube inserted in the colon with a cutting tool at its end. It is mostly used in the early stages of cancer. Resection of colon: In this, a part of the colon is also removed along with the cancer. It is used when the tumor is large. 2. Ablation technique This technique is used to kill small tumors which are usually less than 4 cm in size. Ablation technique includes: Radiofrequency ablation: In this, the tumor is killed by a needle inserted through the skin. The needle is guided by a CT scan or ultrasound. The technique uses radio waves to kill the cancer cells. Microwave ablation: This technique uses electromagnetic waves that create high temperature in the body. The high temperature kills cancer cells. This treatment is usually used to kill large tumors (upto 6 cms). Ethanol (alcohol) ablation: It is also known as percutaneous ethanol injection (PEI). In this procedure, concentrated alcohol is injected into the tumor using a needle. The needle is guided through an ultrasound or CT scan. In some cases, multiple exposure of alcohol is required to kill cancer cells. Cryoablation (cryosurgery or cryotherapy): This technique uses a probe to freeze and kill cancer cells. The probe is guided into the skin using ultrasound with a needle. 3. Chemotherapy Chemotherapy involves the use of anticancer drugs to kill cancer cells. They are available in the form of oral formulations and injections. Injections can be given directly into the vein over a few minutes or as an infusion over a long period of time. The medicines used to treat colon cancer include: 5-Fluorouracil (5FU) Leucovorin Oxaliplatin Capecitabine Irinotecan Cetuximab Panitumumab Regorafenib

These drugs are either used alone or in combinations. Chemotherapy is given in cycles that are often 2 to 3 weeks long. The duration of chemotherapy depends upon the type of drugs used and the side effects. The way in which chemotherapy is given depends upon the overall health of the patient and the stage of cancer. How is chemotherapy given? Anticancer drugs can be given in either of the two ways: Systemic chemotherapy: In this, the medicines are taken through the mouth or injected into the bloodstream. The drug reaches the tumor site through the blood and kills cancer cells. Regional chemotherapy: Drugs are directly injected into the artery that has access to the tumor site. This helps in reducing the side effects. One such example of regional chemotherapy is hepatic artery infusion in which a drug is directly injected into the hepatic artery. This is used in the conditions where cancer has spread to the liver. How chemotherapy is used in the entire course of colon cancer? Adjuvant chemotherapy: It is given after surgery to kill small cancer cells that might have left because of their small size. It reduces the chances of relapse of cancer after the surgery. Neoadjuvant chemotherapy: This is given before the radiation therapy to reduce the size of the tumor. This makes it easy to remove the tumor through radiation. What are the side effects of chemotherapy? The side effects of the chemotherapy depends upon: Type of drug Dose of drug Duration of therapy

Some of the common side effects include: Hair loss Mouth ulcers Loss of appetite or weight loss Nausea and vomiting Diarrhea Nail changes Skin changes Hand-foot syndrome Neuropathy Tiredness Easy bleeding Allergic reactions

It is important to discuss the side effects with your cancer team so that the right treatment can be given timely. 4. Radiation therapy It involves the use of high energy rays such as X-rays to kill cancer cells. It can be used before, during and after the surgery. In various cases, it is given along with chemotherapy (chemoradiation). In the advanced stages, when colon cancer has spread to other organs such as lungs, brain, and bones, radiotherapy is useful. It can be given in two ways: External beam radiation therapy (EBRT): EBRT is the most commonly used radiation therapy for colon cancer. In this, intense radiation is given from outside the body using a machine. This technique is used if there are a small number of tumors where surgery is contraindicated. Internal radiation therapy: In this, a radioactive substance is placed in the rectum near cancer cells. This helps in specific exposure of the radiation to the targeted site. This therapy has lesser side effects.

Radiation therapy can have some short and long-term side effects such as: Skin irritation Nausea Rectal irritation Bowel incontinence Bladder irritation Tiredness Sexual problems 5. Targeted therapy It also involves the use of drugs to identify and kill specific cancer cells due to which it has lesser side effects than chemotherapy and radiation therapy. Various drugs used in targeted therapy include:

1. Monoclonal antibodies: These are specialized proteins that can attach to the cancer cells and inhibit their growth. They are given by infusion. Monoclonal antibodies can be: Vascular endothelial growth factor (VEGF) inhibitors: They kill cancer cells by inhibiting VEGF – a substance that helps in the formation of new blood vessels and aids in the growth of cancer. Some of the common examples are bevacizumab and ramucirumab. Epidermal growth factor receptor (EGFR) inhibitors: This class of monoclonal antibodies stop the growth of tumor cells by inhibiting EGFR, a protein that helps in the growth and multiplication of cancer cells. Some of the common examples are cetuximab and panitumumab.
2. Angiogenesis inhibitors: This class inhibits the formation of new blood vessels that cancer cells require to grow and multiply. Examples include Ziv-aflibercept and regorafenib.
3. Protein kinase inhibitors: They block the special proteins that are needed for multiplication of cancer cells. Encorafenib is one such drug used in colon cancer.
4. Immunotherapy This therapy involves the use of drugs that modulate the immune system. Drugs given during immunotherapy boosts the immune system of the patient that helps in fighting the cancer cells. It is mostly used in advanced stages of colon cancer. Some of the common examples are ipilimumab, pembrolizumab and nivolumab. Walking may improve quality of life of people with advanced cancer According to a study, walking for just 30 minutes thrice a week was found to improve the quality of life for people suffering from advanced cancers. Read the complete article to know more about it. Click To Read! Complications Of Colon Cancer Colon cancer, if diagnosed at an early stage can be treated easily. But, in case treatment is not taken for a long period of time, it can be life threatening. It is important to screen and diagnose in case of any related symptoms or risk factors. The complications of colon cancer include: Iron deficiency anemia Jaundice Bowel obstruction Blockage of the colon Spreading of cancer to other tissues (metastasis) Relapse of cancer Development of secondary tumor in the colon Perforation of the colon Home-care For Colon Cancer

Cancer affects physically, socially, emotionally, and financially. There are certain changes in the life of the patient that affects him/her along with the family. The medications should be taken as prescribed by a doctor.

There are several foods that are known to boost immunity and help in fighting cancer cells. However, these foods should be used after consulting with a doctor. These include: Green tea It contains antioxidants that help in boosting the immunity. Caffeine-free products should be used. Green tea is contraindicated in certain people such as people suffering from glaucoma. It should always be initiated before consulting your doctor. Reishi mushroom It is known to have cancer fighting properties along with immune boosting effects. Turmeric (Haldi) It is also shown to have some anti-cancer and anti-inflammatory properties. Curcumin present in turmeric helps in the prevention of colon cancer. It also aids in killing cancer cells. Probiotics Since microbiota plays a very important role in the progression of colon cancer, probiotics can be used for prevention or as an adjuvant therapy in the treatment of colon cancer. Probiotics such as Lactobacillus, Streptococcus, Enterococcus, Lactococcus, Bifidobacterium and Leuconostoc play a very important role in maintaining the health of the colon. Individuals who consume yogurt have lesser chances of developing colon cancer.

Here’s more about the health benefits of probiotics. Click To Read!

Polyphenols They are found in various plants and are known to have anti-cancer properties. Many foods contain polyphenols including cereals and legumes (barley, corn, nuts, oats, rice, sorghum, wheat, beans, and pulses), oilseeds (rapeseed, canola, flaxseed, and olive seeds), fruits and vegetables, and beverages (fruit juices, tea, and coffee). They also poesses antioxidant properties and thus, reduces the risk of colon cancer. Ways to take care of yourself Spend at least 15-30 minutes each day to do something that you like. It could be going for a walk, performing yoga, taking a nap, watching a movie, or talking with friends etc. Understand your feelings and emotions. It helps you in understanding your needs. Join a support group either in person, on phone, or through online. Learn more about the types, stages, and treatment of cancer to be more aware of your condition and be prepared mentally. Connect with a cancer survivor as it can boost your confidence and spread positivity to help you recover fast. Note down atleast one positive feeling or gesture that you received from a nurse, doctor, or a co-patient. Role of caregivers Caregivers play a very important role in the overall disease outcome of the patient diagnosed with colon cancer. The need for caregiver support increases with the age of the patient. Older patients require the support of caregivers as they are less proactive through the treatment approach and decision making. The important role of caregivers are:  
Providing emotional support so that patient does not feel alone Making decisions about diseases management options Participating in doctor appointments Providing professional support as they are trained in handling patients Giving the medicines to the patient on time, change dressings, help to take bath, and check the surgery sites Helping with meals Alternative Therapies For Colon Cancer

Acupuncture It helps in alleviating cancer related symptoms such as nausea and vomiting which are the most common side effects of chemotherapy. It also reduces pain, shortness of breath, and breathlessness. This can be used after medical therapy or during chemotherapy and radiation therapy. Mind-body therapies It includes relaxation techniques, yoga, meditation, tai chi, and art therapies. They are shown to reduce nausea and vomiting, pain, fatigue, anxiety, insomnia, depressive symptoms and improving overall quality of life. It is very helpful in patients undergoing surgery, chemotherapy, and radiation therapy.

Find out the amazing health benefits of Yoga. Click To Read!

Living With Colon Cancer

Managing physical effects Every cancer therapy has numerous physical changes. It is important to discuss every little change happening in your body to your doctor. This helps doctors in modulating your treatment regimen to alleviate the symptoms. Continuous follow up even after the end of therapy is recommended to track long term effects and relapse of cancer. Managing the fear of side effects Every cancer therapy has side effects which may vary depending on various factors. It is completely common to have fear from side effects. However, there are various options available to manage the side effects effectively. These include: Take an active role in your treatment plan. This helps you in knowing about possible side effects well in advance. Talk about the side effects to your doctor that may help you in alleviating and preventing the side effects. Maintain a journal in which you can write about your experiences. Talk about your fear to your loved ones. This will reduce your anxiety.

Managing emotional and social effects Diagnosis of cancer can have emotional and social effects on the patient. This includes stress, anxiety, depression, sadness, and a feeling of helplessness. Some of the easy steps that can be taken to manage your emotional health is to: Engage yourself in activities you like such as crafting, painting, and singing. Do regular exercise as it helps in reducing stress. Join any support group either online or offline. Ask help from a professional counselor. Meet someone who is undergoing the same type of treatment. Listen to a podcast related to survival stories of the patients with colon cancer Managing the cost of cancer treatment Cancer treatment can be very expensive and this can give anxiety and stress to the patient and his/her family. This can be managed through: Understanding the cost of therapy well in advance. Communicating any financial issues with the cancer team. This will help doctors to look for affordable alternatives. Finding financial support resources though oncology social workers, oncology nurses, doctors, or online. Taking help through your health insurance partners. Watching for recurrence Follow up care even after the completion of treatment is required to check relapse, managing long term side effects and overall health. The first 5 years after treatment is very crucial for colon cancer. Follow up care includes regular physical examinations, tests, and counseling. Cancer rehabilitation is also required to give: Physical therapy Emotional counseling Managing the long term pain Nutritional guidance Frequently Asked Questions Can colon cancer be cured? Where is colon cancer pain felt? Can colon cancer be inherited? How do I know about my colon cancer? Which type of food items can cause polyps? References Colorectal cancer screening tests, colorectal (colon) cancer, Centers For Disease Control and Prevention. Last updated on: 17 February, 2022. Colorectal cancer: Diagnosis. Cancer.Net. Screening tests to detect colorectal cancer and polyps. National Cancer Institute. Last update on: 02 August, 2021. Colorectal cancer screening tests. American cancer society. Treatment of Colon cancer by stage, American Cancer Society. How can I reduce my risk of colorectal cancer? Colorectal (Colon) cancer. Centers For Disease Control and Prevention. Last updated on: 17 February, 2022. Colon Cancer Treatment (PDQ®)–Patient Version, National Cancer Institute. Last updated on: 6 April, 2022. Sawicki T, Ruszkowska M, Danielewicz A, Niedźwiedzka E, Arłukowicz T, Przybyłowicz KE. A review of colorectal cancer in terms of epidemiology, risk factors, development, symptoms and diagnosis. Cancers. 2021 Jan;13(9):2025. Recio-Boiles A, Cagir B. Colon cancer. InStatPearls [Internet] 2021 Jan 25. StatPearls Publishing. Colon cancer caregivers, Colon cancer foundation, Last updated on: 12 May, 2020.

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Color blindness Also known as Daltonism, Color vision deficiency, Color vision problem Overview Color blindness is the difficulty in telling the difference between certain colors or shades. Very rarely color blindness makes a person unable to see any colors. Color blindness is mostly an inherited genetic condition. In some cases, it can be acquired in life due to the side effects of certain medications, industrial and environmental chemicals, or chronic illnesses. Individuals with color blindness encounter some common difficulties in day-to-day life like choosing fresh vegetables, fruits, and flowers, driving a car, and selecting clothes. Currently, there is no treatment for this condition. However, specific photographic frames eyeglasses and contact lenses can be used to improve the distinguish between some colors. Key Facts Usually seen in Individuals between 70 and greater Gender affected Both men and women but is more common in men Body part(s) involved Eyes Prevalence World: 300 million (2023) Mimicking Conditions Stationary Night Blindness (CSNB) Retinitis Pigmentosa (RP) Necessary health tests/imaging Screening tests Ishihara test Lantern tests Anomaloscope Color arrangement tests Treatment Memorizing Special glasses or contacts Visual aids apps and technology See All Symptoms Of Color Blindness The symptoms of color blindness vary from person to person. Many people have such mild symptoms that they don’t even realize they have color blindness. The symptoms of color blindness may include: Difficulty in telling colors apart Trouble seeing the brightness of colors Inability to distinguish different shades of red and green or blue and yellow Feeling of eyes or head getting hurt while looking at a red or green background Identification of colors may become worse in low-level light, conversely, colors may be easier to distinguish in natural daylight. In the rarest cases, color blindness may affect the sharpness of vision. Causes Of Color Blindness The retina (the light-sensitive layer at the back of the eyeball) of the eyes has two types of photoreceptor cells. They are called the rods and the cones. The rods detect lightness and darkness whereas the cones detect colors. There are three types of cones that are able to interpret the primary colors ie. red, green, and blue: Red-sensing cones (L cones): These cones perceive long wavelengths of light (around 560 nanometers). Green-sensing cones (M cones): These cones perceive middle wavelengths (around 530 nanometers). Blue-sensing cones (S cones): These cones perceive short wavelengths (around 420 nanometers). These cone cells send information through the optic nerve to the brain. The brain then uses this input to determine our color perception. Color blindness can occur when one or more types of cone cells are absent, not working properly, or detect a different color than normal. Mild color blindness happens when one cone cell does not work right. Severe color blindness occurs when all three cone cells are absent or defective. Types Of Color Blindness

The different types of color blindness are: Red-green color blindness This is the most common color blindness that makes it hard for the individual to differentiate between red and green. There are 4 types of red-green color blindness: Protanomaly: This leads to reduced sensitivity to red light, and makes the red look less bright. This type is mild and usually doesn’t interfere with normal activities. Deuteranomaly: This leads to reduced sensitivity to green light. This is the most common type of red-green color blindness. This type is mild and doesn’t usually get in the way of normal activities. Protanopia and deuteranopia: In both of these types the individual is unable to tell the difference between both red and green at all. Blue-yellow color blindness This is a less common type of color blindness in which an individual is unable to differentiate between blue and green, and between yellow and red. There are 2 types of blue-yellow color blindness: Tritanomaly: This leads to reduced sensitivity to blue light. Tritanopia: This is unable to tell the difference between blue and green and yellow and pink. This color blindness makes the color look less bright. Blue cone monochromacy This is the rarest form of color blindness. In this type of color blindness, there is a lack of working L cones or M cones. There are only S cones. Individuals having this kind of color blindness often find it hard to tell the difference between colors and see mostly grays. Rod monochromacy (achromatopsia) Achromatopsia is a condition when all or most of the cones are missing or not working properly. This is also called monochromacy, and it’s quite rare. For them, their world consists of different shades of gray ranging from black to white, rather like seeing the world on an old black-and-white television set. An individual may also have other vision issues that may greatly impact their quality of life. Risk Factors For Color Blindness The various risk factors of color blindness can be inherited (a person is born with it) or acquired (developed later in life). The causes are different in each case. Inherited color blindness Most people with color blindness are born with it. This is called a congenital condition. A change (mutation) to the genes leads to inherited color blindness. The most common form, red-green color blindness, follows an X-linked recessive inheritance pattern. The genetics for red-green color blindness are:

In males A male baby will have red-green color blindness if the mother has the condition There is a 50% chance of inheriting red-green color blindness if the mother is a carrier (the mother carries one copy of the genetic mutation but doesn’t have the condition). The other copy is normal, hence there is a 50% chance. The condition would not be present if the father has the condition as the father contributes the Y chromosome to male babies and the X chromosome to female babies.

In females A female baby will inherit red-green color blindness if both parents have the condition. The female baby would be a carrier in case the father has the condition but the mother does not. There will be a 50 percent chance of inheritance of red-green color blindness (50% chance) or a carrier (50% chance) if the father has the condition and the mother is a carrier.

Acquired color blindness This color blindness mostly develops as a blue-yellow color deficiency, and has many associated risk factors including Aging: The ability to distinguish different colors deteriorates slowly with age. Chronic illnesses: Having eye-related diseases such as age-related macular degeneration or glaucoma increases the likelihood of color blindness. Having health issues like diabetes, multiple sclerosis, Alzheimer’s disease, autoimmune diseases, high blood pressure, heart problems, nervous disorders, and physiological issues multiplies the chances of color blindness. Stroke: Accidents or strokes that damage the retina or affect a particular area of the brain or eye can lead to color blindness. Medications: Certain medications for high blood pressure, diabetes, hypertension, erectile dysfunction, tuberculosis, and specific antibiotics and barbiturates, can alter the vision of the eyes. Industrial and environmental chemicals: Exposure to chemicals such as carbon monoxide, carbon disulfide, organic solvents, and some containing lead may also increase the risk of color blindness. Uncontrollable diabetes can lead to loss of vision. Here is a list of a few pointers to remember for a healthy vision. Click To Read Diagnosis Of Color Blindness Accurately diagnosing color blindness is important to reduce further complications. Diagnosis includes History A complete history provides important information to determine whether the patient has a family history or is having certain diseases and taking certain medications. Screening tests The tests for color vision deficiency are: Ishihara test: This is the most well-known test for color blindness. A set of images called the Ishihara color plates is used for the detection of color blindness. The individual is told to look at the images, which have numbers embedded in dots of color. The color of the numbers is a different color than the background. If the person cannot see the numbers, then the individual is probably colorblind. Lantern tests: This test is also called a Farnsworth Lantern [FALANT] test which is used for detecting individuals that are unable to distinguish between red and green. During this test color pairs (including red, green, and white) are shown and the outcome is based on the number of color-naming errors. Anomaloscope: A simple instrument anomaloscope is used to diagnose color blindness. In this test, two different light sources have to be matched to the same color. They are optical instruments in which the observer must manipulate stimulus control knobs to match two colored fields in color and brightness. This is a standard instrument for the diagnosis of color vision defects. Color arrangement tests: This test is also called the hue test. The doctor will provide you with blocks that are different colors. The doctor will ask you to arrange them in rainbow order, from red to purple. If the individual is facing trouble putting them in the correct order, there are chances of having a type of color blindness. Celebs affected Mark Zuckerberg Mark Zuckerberg is the Chief Executive Officer of Facebook. According to The New Yorker, Zuckerberg is red-green colorblind, which means the color he can see the most is blue. Blue also happens to be the color that dominates Facebook. Bill Clinton Bill Clinton served as the President of the United States from 1993 to 2001. He reportedly finds trouble distinguishing between red and green colors. Prevention Of Color Blindness

There is no way to prevent color blindness that has been present since birth. But there are chances to reduce the occurrence of color blindness later in life by getting regular eye examinations and steering clear of avoidable risk factors. World Sight Day is observed on 10th October of every year. The aim is to raise awareness of blindness and vision impairment. Are you taking care of your eyes? Here are five simple tips to prevent vision problems. Click Here To Check

Specialist To Visit

You should contact your doctor immediately if you have the following symptoms: Difficulty in telling colors apart Trouble seeing the brightness of colors

Doctors that can help you diagnose and treat color blindness include: General Physician Ophthalmologist Optometrist

An ophthalmologist or an optometrist is a medical practitioner who specializes in eye and vision care. The doctor helps detect any problems related to eyes and vision early. If you or your loved ones are noticing any of the above symptoms, seek medical help from our trusted team of doctors. Book Your Appointment Now

Treatment Of Color Blindness

Currently, there is no cure for color blindness that is present from birth (inherited color blindness). In many cases, most people with color blindness learn to adapt and live with the same condition.

If color blindness is happening because of another health problem (acquired color blindness), the doctor will treat the condition causing the problem. If someone is taking a medicine that causes color blindness, your doctor may suggest altering the ratio if required or switching to a different medicine.

Here are some ways to work around poor color vision:

Special glasses or contacts may also help some people with red-green deficiency see the difference between colors. EnChroma glasses These glasses were created for doctors to use during laser surgery procedures. They were originally created as sunglasses with lenses coated in a special material that exaggerated the wavelengths of light. It was discovered that the coating on these lenses might help people with poor color vision to see the differences in pigment but to varying extents. These glasses work by filtering out certain wavelengths of light to help people better distinguish red and green colors. The glasses do not help in restoring normal color vision, but they may make certain hues appear more vibrant. These glasses are now used as color-correcting glasses designed to alleviate symptoms of red–green color blindness. But the options are highly limited and expensive to be used by all individuals. Contact lenses Contact lenses for color blindness are the most common choice for many patients, as it is easy to use and painless too. Are you worried while using contact lenses? Here is a list of a few common mistakes which lens wearers should avoid to take care of their eyes. Click Here To Know Visual aids apps and technology Certain apps can be used to take a photo with the phone and then tap on the part of the photo to find out the color of that area. Newer Interventions Research has been going on gene therapy (a technique that uses genes to treat, prevent or cure a disease or medical disorder) for people who have inherited color blindness. If modern gene therapy does catch on, treatments for color blindness may eventually be approved and could open the door to color vision enhancement. Potential gene replacement therapy for red-green color blindness has already been tested in animals. Complications Of Color Blindness

Individuals with a severe form of color blindness can face complications like:

Achromatopsia: It is a condition characterized by the partial or total absence of color vision. The individual cannot perceive colors except black, white, and shades of gray. Nystagmus: It is a condition in which your eyes make rapid, repetitive, uncontrolled movements. In some cases of color blindness, individuals may face involuntary back-and-forth eye movements. Photophobia: The discomfort in bright light can be due to color blindness.  
Living With Color Blindness

If color blindness occurs as a result of illness or injury, treating the underlying cause may help to improve color blindness. However, there’s no cure for inherited color blindness. People with color blindness often consciously apply certain techniques or use specific tools to make life easier by By memorizing the order of color objects Having a caregiver who can sort the clothing or other items A few tips that can help in managing everyday challenges:

1. Aim for right lighting Lighting makes a big difference in the abilities of those with a vision deficiency. Yellow or dull lighting can make it even harder to perceive color. Glares can make it difficult to perceive colors properly. In areas where the lighting can be controlled, aim for bright, and natural light.
2. Use of smartphones and apps With the help of advancements in technology, smartphone apps can assist people with color vision deficiencies in identifying colors. Certain apps are very useful while shopping or picking out clothes in the morning. The app is mainly designed for color-blind individuals and helps in Matching clothes All sorts of color identification in day-to-day life
3. Look for Color Blind glasses This is not a cure for color blindness. However, colorblind glasses are the best option. These glasses are just like the normal glasses available in multiple shapes and colors. These glasses work by filtering out the overlapping wavelengths that result in color blindness and help in seeing the world as a normal-sighted person and conquering everyday tasks.
4. Handling challenges in school If the child is colorblind coordinate with teachers and ask the following points to help their children: Let the child sit front and center to have a good view of the blackboard Label paints and other art supplies with basic names Create handouts that only use black ink on a white sheet of paper
5. Shopping for fruits and vegetables Suppose you find difficulties in distinguishing between fruits and vegetables due to color. In that case, you can search online or ask a worker at your grocery store for help in determining your favorite fruits and vegetables.
6. Cooking tips For color-deficient individuals, it is difficult to determine if the food is fully cooked and ready to eat and if fruits and vegetables are ripe or rotten. The best practice to follow is while cooking, always follow temperature guidelines. Instead of determining if a piece of chicken has been cooked thoroughly based on the center of the meat’s color, use a meat thermometer.
7. Addressing work challenges Reading and designing PowerPoints at work, or working on graphs and images and reading company documents may possess a challenge. A color-blind employee can speak with the boss about ways the company can be more inclusive, such as changing company document templates to colors that aren’t as difficult to comprehend.
8. Dealing with gadgets Most advanced electronics these days have ways to signal a low or full battery without relying on color. For example, Apple computers have a setting called “Differentiate without colors.” Android phones also offer a higher version that offers color correction based on what colors the user is not able to see.
9. Reading traffic lights For reading the traffic lights a color-blind person needs to rely on the position rather than the color. For traffic lights that run from top to bottom: the top stops, the middle is caution, and the bottom is gone. Suggestions for improved traffic lighting There should be a simple tweak in the traffic lights to make color-deficient individuals perceive the light easier:

The new traffic lighting system should have two colors for each sign. The “stop” sign should have the center red and a peripheral yellow rim. The “go” sign should have a central green and a peripheral blue rim. Thus most color-blind individuals (red-green) will detect the yellow rim for “stop” and the blue rim for “go”. The traffic lights should have only these two signals: “stop” and “go”, eliminating the intermediate orange sign. These simple ideas can be helpful in assisting color-blind individuals. Frequently Asked Questions Can color blindness be cured? What are the five symptoms of color blindness? Can colorblind people drive? What causes color blindness? References The Art of Medicine. Harvard Medicine. Autumn 2022 issue. Two‑dimensional biocompatible plasmonic contact lenses for color blindness correction. N. Roostaei & S. M. Hamidi. Causes of Color Blindness. National Eye Institute. June 2019. Living with Colour Vision Deficiency. Color Blind Awareness. 2023. Naifeh J, Kaufman EJ. Color Vision. [Updated 2022 Oct 31]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: Pasmanter N, Munakomi S. Physiology, Color Perception. [Updated 2022 Sep 12]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: Types of Color Blindness. National Eye Institute. June 2019. What is color blindness? National Eye Institute. July 3. Color Blindness. National Health Service. March 2023. A review on today’s burden affecting the quality of life for color blind patients. Corina-Iuliana Suciu, Vlad-Ioan Suciu et.al. Color vision problems become more common with age, a study shows. Wolters Kluwer Health: Lippincott Williams & Wilkins.

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Common cold Also known as Cold and Upper respiratory tract infection (URTI) Overview Common cold is one of the most common ailments that every one of us might have had at some point in our lives. Although mostly caused by viruses, cold can also be triggered due to changes in weather or an underlying respiratory infection. It can spread by close contact with infected people or touching contaminated objects.

Sneezing, sore throat, feeling of being unwell, and nasal discharge are the most common symptoms associated with a cold. To diagnose a cold, assessing the physical symptoms is usually sufficient. In most cases, there is no need for any laboratory test.

Treatment of cold is mainly based on relieving the symptoms. Home care measures like steam inhalation, staying hydrated, gargling, use of nasal spray and taking adequate rest are effective in speedy recovery from the cold. Key Facts Usually seen in All age groups Gender affected Both men and women Body part(s) involved Nose Throat Sinuses Mimicking Conditions Allergic rhinitis Sinusitis Treatment Antihistamines and decongestants: Phenylephrine, Chlorpheniramine & Fexofenadine Expectorants and antitussives: Guaifenesin & Dextromethorphan Pain relief medications: Paracetamol, Ibuprofen & Aspirin Specialists to consult General physician ENT specialist Pulmonologist Infectious disease specialist Allergist Symptoms Of Common Cold

The cold or common cold, as the name suggests, is so common that according to studies, an average adult gets 4-6 colds per year, whereas children get 6-8 colds in a year. A cold is most commonly characterised by the following symptoms:

Stuffy nose Sore throat Sneezing Cough (productive or dry) Watery eyes Malaise or a general feeling of being unwell Slight body aches or a mild headache Nasal discharge that is more than usual

Note: Discharge usually starts out clear and becomes thicker and yellow or green as the cold progresses.

Occasionally, the common cold can also present with the following symptoms: Postnasal drip or drainage at the back of throat Earache Sinus pressure Loss of appetite Loss of smell or taste Oversensitivity to the ambient temperature Chills (feeling cold with or without fever) Low grade fever (below 102°F) Chest discomfort Difficulty in breathing deeply Causes Of Common Cold

The most common causes of the common cold are viruses, especially RNA viruses. Some of the common viruses that cause cold are:

Rhinovirus Coronavirus Influenza virus Parainfluenza virus Adenovirus Coxsackievirus  
Human bocavirus (HBoV)

Some common colds may also be caused by bacteria, but it is quite rare. Rhinoviruses are known to be the most common causative agents of cold in children and adults. Is it common cold or COVID-19? COVID-19 shares many symptoms with the common cold. Both are caused by respiratory viruses and spread from person to person through droplets that come out of the nose and mouth. It can be difficult to tell the difference between the two just based on symptoms, especially in mild to moderate cases. Some signs that could indicate that the illness is COVID-19 rather than a cold include fever or chills, persistent dry cough and shortness of breath. However, a fever can also indicate flu, pneumonia, or any other infection. Hence, it is best to undergo testing if COVID-19 is a possibility. Click here to learn more about COVID-19. Read Now! Risk Factors For Common Cold

Following factors can increase your risk of catching a cold. Infants, toddlers and young children are at a higher risk of catching a cold Although one can get a cold anytime of the year, it is more prevalent in winters Close contact with the infected person Exposure at closed overcrowded places like play groups, schools, offices or aeroplanes Low humidity or dry weather which makes the nasal passages drier and more susceptible to an infection Smoking or secondhand smoke Poor hand hygiene Exposure to contaminated objects Allergies Chronic respiratory illness Low immunity Lack of sleep Stress Diagnosis Of Common Cold

The diagnosis of a cold is done on the basis of your medical history and physical examination. Usually, laboratory tests in case of a cold are of no or very little significance. However, there are some rapid tests suggested for the detection of influenza, parainfluenza, and adenovirus antigens in nasal secretions. Rhinovirus, influenza viruses, and adenoviruses are also detected by taking a throat swab. Common cold is not the same as flu Common cold shares many symptoms with a potentially more serious condition called “flu” (influenza). Recognizing when your illness is mild like a cold or when it’s more serious like the flu is crucial. Here are 2 quick tips that will help you differentiate your cold from the flu. Click To Read! Prevention Of Common Cold

You cannot always prevent a cold. However, by following some simple preventive tips, you can avoid catching a cold from other people. Do not come in close contact with people who have a cold, particularly during the initial days of catching a cold as they are highly infectious around this time and may spread the infection. Wash your hands frequently in a day, especially after coming in close contact with someone who has a cold or after touching an object which is contaminated. It is also important to wash your hands before and after meals. Do not touch your eyes, nose, and mouth to avoid infecting yourself with the cold virus as your hands are the easiest way viruses and other infected particles enter your body. Do not use personal belongings of an infected individual such as towels and handkerchiefs to avoid contracting the common cold. Sometimes, a dry environment can also trigger a cold; therefore, keep a check on the humidity of your environment to prevent drying of sinuses. If you have a cold, it is advised to cover your nose and mouth with a handkerchief or a tissue while coughing or sneezing. Discard the used tissue in a closed lid bin and wash hands. It is also advised to stay away from vulnerable people suffering from asthma or other chronic lung diseases. Did you know? Colds are highly contagious. They most often spread when droplets of fluid that contain a cold virus are transferred by touch. These droplets may also be inhaled. Here’s more on how to prevent the common cold. Read To Know! Specialist To Visit

Usually, the cold gets better on its own without any treatment in 7 to 10 days. However, you can visit a doctor if your cold tends to get worse with time or if you have a high fever, chest pain, shortness of breath or trouble breathing. Also, let your doctor know if your symptoms worsen with each passing day. You can consult the following specialists:

General physician ENT specialist Pulmonologist Infectious disease specialist Allergist

Consulting a doctor becomes even more important for people who are suffering from a chronic disease of the airways such as asthma or chronic obstructive pulmonary disease (COPD). Get medical help, if you notice any of the following symptoms like:

High fever Ear pain Sinus related headaches Severe symptoms of a cold that are unusual Cough that worsens while other cold symptoms improve A flare-up of any chronic lung problem such as COPD or asthma

Consult India’s best doctors online from a single click. Book Your Appointment!

Treatment Of Common Cold

There is no definitive treatment available against colds caused due to the invasion of viruses. For such cases, medications are considered helpful but they can only provide relief from the symptoms. Here are some common treatment options suggested by professionals in case of cold. 1. Antihistamines and decongestants

If you have a cold, antihistamines and decongestants can give you symptomatic relief with reduced nasal discharge, nose-blowing, sneezing, duration, and severity of symptoms. Some of the common examples include: Phenylephrine Chlorpheniramine Fexofenadine 2. Expectorants & antitussives

If your cold is accompanied by cough, you may need either antitussive or an expectorant depending upon the type of cough you have. Some of the common examples are: Guaifenesin Dextromethorphan 3. Pain relief medications

Non steroidal anti-inflammatory drugs (NSAIDs) can help ease symptoms like body aches, inflammation, and fever. Examples include: Paracetamol Ibuprofen Aspirin

Note: Never give aspirin to children as it can lead to Reye’s syndrome, a rare but very serious illness in kids that affects the liver and brain. Did you know? Antibiotics are generally of no use in treating common cold. They may be of significance only when your cold is followed by a secondary bacterial infection such as sinus infection. Antibiotics, however, should only be taken after consulting your doctor to avoid antibiotic resistance in the future. Home-care For Common Cold

Over-the-counter medications can provide temporary relief of symptoms and should be used as soon as you feel a cold coming on.

1. Increase your intake of fluids If you have a cold, then drinking plenty of fluids will help in thinning of the mucus and its easy drainage from the nose. It is advised to include plenty of liquids, especially warm drinks, to soothe your sore throat and manage your cold symptoms better.
2. Take proper rest Adequate sleep is vital to healing. Sometimes, over exhaustion and fatigue could aggravate the cold symptoms. Sleep can help in producing natural fighter cells in the body that fight infections.
3. Use nasal saline solution or spray You can use non-medicated nasal saline sprays or solutions to keep your nasal passages moist and free of any thickened mucus and get rid of blocked nasal passages.
4. Keep the ambient air humid You can use a humidifier to keep your ambient air moist to prevent drying of nasal passages. You can also inhale steam to get relief from the cold symptoms.
5. Use a neti pot A neti pot is a container that helps in flushing out the mucus. You can use it by bending your head towards your side over the sink and keep the spout of the neti pot in your upper nostril. After this pour water (salt water solution) into your upper nostril and let the water flow or drain down towards the lower nose.
6. Sleep in elevated position The sleeping position which is at a slightly elevated slope helps in better drainage of your mucus. You can keep pillows under your head to help fluids flow in your sinuses and prevent congestion.
7. Gargle Garging with salt water or povidone-iodine can help in reducing the incidence of upper respiratory tract infections.
8. Eat foods that support your immune system Foods that are rich in Vitamin C and zinc helps you in recovering from the cold. Foods that are rich in Vitamin C such as oranges, lemon, bell peppers and strawberries can help you get relief from the symptoms of a cold.
9. Pay extra attention to hygiene Keeping good hygiene will not only help in preventing cold but also helps in preventing the cold from spreading to other person. Make sure you keep your hands clean at all times and disinfect the frequently touched items/surfaces.

Fight the viral cold better with these effective and easy natural remedies. Click Here!

Complications Of Common Cold

Colds usually get better in a few days to weeks, with or without medication. However, a cold virus can make way for several other infections in the body such as:

Acute ear infection (otitis media) Acute sinusitis Acute bronchitis Strep throat Pneumonia Croup or bronchiolitis in children

If you are already suffering from any respiratory problems such as asthma, chronic bronchitis, or emphysema, cold may worsen the symptoms of these diseases. Did you know? If your cold refuse to go away, it could be a sign of sinusitis. Sinus infection or sinusitis occurs when the air-filled spaces inside your nose and head (called sinuses) get inflamed or swollen. Both viruses or bacteria can cause this inflammation. Here’s more about sinusitis. Click To Know! Alternative Therapies Of Common Cold

Here are some of the home remedies that can help you recover faster from a cold.

Lemon (Nimbu): Lemons are amongst the most famous remedies for cold and fever as they are rich in antioxidants and Vitamin C. They increase the body’s resistance to cold and cough and reduce the duration of illness.

You can take lemon juice in warm water with a tablespoon of honey. You can take this solution twice or thrice a day.

Ginger (Adrak): It has anti-inflammatory and antioxidant properties. To cure a cold, you can cut a small piece of ginger and boil it in water. Strain this mixture and consume this decoction twice or thrice a day. You can also chew raw ginger or consume it in the form of supplements.

Garlic (Lehsun): Garlic is an excellent source of anti-inflammatory agents. It has antispasmodic and antiseptic action as well.

You can take 3-4 cloves of garlic and boil it in water and consume it once a day.You can also take 3-4 drops of garlic oil diluted in water and take it twice or thrice a day.

Turmeric (Haldi): Turmeric is also an excellent remedy for colds. You can mix half a teaspoon of turmeric in warm milk and consume it once a day. If you are suffering from a runny nose, you can take smoke from the burning turmeric for quick relief.

Bitter gourd (Karela): Roots of bitter gourd are effective in treating a cold. You can mix a paste of bitter gourd, tulsi leaves, and equal parts honey and take it once daily at night for a month.

Lady finger (Bhindi): Lady finger or okra is rich in mucilage and helps in treating throat allergies, swelling, and pain associated with cold. To relieve the common cold, you can add a few cut lady fingers into boiling water and consume this decoction once daily.

Vitamin C: Regular intake of Vitamin C is helpful in preventing colds. If you already have a cold then taking Vitamin C can help you relieve the symptoms and shorten the duration of the cold. You can take 1-2 tablets of Vitamin C daily, or as prescribed by your doctor. Frequently Asked Questions How long does a cold last? Are cold and flu the same? Why do colds become worse in winters? What foods should I avoid if I have a cold? How to know if your cold is viral or bacterial? References Worrall Graham. Common cold.Can Fam Physician. 2011 Nov; 57(11): 1289–1290. Wang Jae Lee. Common Cold and Flu.Vitamin C in Human Health and Disease. 2019 Aug 7 : 89–100. Nielsen H Herløv , Permin H .Common cold–risk factors, transmission and treatment.Ugeskr Laeger. 2001 Oct 8;163(41):5643-6. Pappas. E Diane.The Common Cold.Principles and Practice of Pediatric Infectious Diseases. 2018 : 199–202.e1. Facts about the common cold. American lung association.[Internet] [accessed on 9th april, 2021] H.K. Bakhru. Indian Spices & Condiments as Natural Healers. Jaico Publishing House, 2001. p53-54

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Conjunctivitis Also known as pink eye, conjunctivitis infective, contagious ophthalmia Overview Conjunctivitis is an infection of conjunctiva, a transparent membrane that lines the eyelid and covers the white part of your eyeball. When small blood vessels in the conjunctiva become inflamed, they become more prominent. This is what causes the whites of your eyes to appear reddish or pink, hence the name pink eye.

Conjunctivitis is marked by burning and itching in the eyes along with mucus or pus discharge. There is a constant urge to rub the affected eye and in some cases pain may also be present. It may be caused due to certain infectious agents such as viruses, bacteria or non-infectious causes such as dust, fumes or other allergens. Diagnosis is usually confirmed by physical examination by your doctor and treatment depends upon the infective cause of the condition. While viral conjunctivitis does not require any treatment, bacterial infection may require anti-infective agents in the form of eye drops or ointments.

You can prevent conjunctivitis by keeping your hands clean and avoid sharing personal belongings such as eyewear, eyedrops, makeup with infected individuals. Cautious use of contact lenses is also important to prevent contracting this infection. Conjunctivitis, which gets worse with each passing day, should be taken seriously and treated by an ophthalmologist as it poses a risk of complications such as uveitis and corneal perforation. Key Facts Usually seen in All age groups Gender affected Both men & women Body part(s) involved Eyes Prevalence Worldwide: 1% (2013) Mimicking Conditions Glaucoma Iritis Keratitis Episcleritis Scleritis Pterygium Corneal ulcer Corneal abrasion Corneal foreign body Subconjunctival hemorrhage Blepharitis Hordeolum Chalazion Contact lens overwear Dry eye Treatment Antibiotics: Chloramphenicol, Ciprofloxacin, Moxifloxacin Corticosteroids: Loteprednol etabonate, Fluorometholone NSAIDs: Ketorolac Specialists to consult Ophthalmologist Symptoms Of Conjunctivitis

Conjunctiva refers to the mucous membrane that covers the outer surface of your eyes and is responsible for maintaining a healthy eye and vision. Conjunctivitis refers to the inflammation and infection of the conjunctiva. You may suspect conjunctivitis if you have: Pink or red color in the white of the eyes Burning, irritation or itching in the eyes Discharge of mucus or pus from the eyes Swelling of the layer lining the white part of the eye and the eyelid(inside part of the eyelid) Increased production of tears A constant feeling of a foreign object in your eyes A constant urge to rub your eyes Thick mucous discharge that crusts over of lashes especially after waking up making the eye difficult to open Pain and tearing in eyes Increased sensitivity to light Eye pain, medically known as ophthalmalgia, is a common complaint that causes discomfort in and around the eyes. Here are common causes of eye pain. Click To Read!

Causes Of Conjunctivitis

Conjunctivitis may be caused by pathogens such as bacteria,viruses or some allergens and irritants. Some of the most common causes of conjunctivitis are described below:

1. Infectious causes of conjunctivitis These types of conjunctivitis are contagious ie. They can easily spread from an infected person or by something an infected person has touched, such as a used tissue. The various types of infectious causes are as follows: Bacterial conjunctivitis is very common in children and some of the common bacterias responsible for conjunctivitis are Staphylococcal species such as Staphylococcus aureus, H. influenza, S. pneumoniae, and Moraxella catarrhalis. Bacteria such as Streptococcus pneumoniae and Haemophilus influenzae cause conjunctivitis in adults. Viral conjunctivitis is also quite common in adults. This type of conjunctivitis is very contagious and often spreads in schools and other crowded places. Viruses such as Adenoviruses, Herpes simplex, Herpes zoster, and Enterovirus are known to cause conjunctivitis.
2. Non-infectious causes of conjunctivitis These conjunctivitis are not contagious and are usually caused by some allergen or irritant: Allergic conjunctivitis is the body’s reaction to allergens or allergic substances. It affects both eyes and is a response to an allergy causing substance such as pollens, dust mites, molds, dander from pets, medicines or cosmetics etc. Allergic conjunctivitis is more common in people with other allergic conditions, like hay fever, asthma, and eczema. One may also experience symptoms like sneezing and watery nasal discharge along with symptoms of conjunctivitis. Giant papillary conjunctivitis is a type of allergic conjunctivitis caused by the long term presence of a foreign body in the eye. People who wear inflexible contact lenses, use soft contact lenses that are not changed frequently or have a prosthetic eye are more prone to develop this kind of conjunctivitis. Irritant conjunctivitis is caused by irritants like smoke, dust, fumes. Toxins like chemicals from the chemical industry or the chemicals/gases used in a laboratory or caustic materials like bleach can cause conjunctivitis and in some cases a chemical splash can lead to permanent damage to the eye as well.  
   Did you know? The Coronavirus that has caused the COVID -19 Pandemic has been found to cause conjunctivitis as well. Conjunctivitis can be found in people with COVID-19 before they have other typical symptoms. To learn more about Covid Read Now! Risk Factors Of Conjunctivitis

You are at a high risk of contracting conjunctivitis if you: Are exposed to people who are infected with conjunctivitis Share items such as towels, pillow cases, makeup products with the infected individual Have sinusitis Have certain immunodeficiency diseases, trauma, other eye diseases and exposure to congenital sexually transmitted disease increases your risk of this condition Wear contact lenses for extended hours particularly during their sleep which put you at a high risk of bacterial corneal infection Did you know? Pinkeye in newborns/neonatal conjunctivitis/ophthalmia neonatorum is a severe form of conjunctivitis that occurs in newborn babies or within the first month after birth. If a pregnant woman is suffering from a sexually transmitted disease like chlamydia or gonorrhea, the infant is exposed to them during delivery. It is a serious condition that could lead to eye damage. In such a case, consult the child’s pediatrician or ophthalmologist for timely treatment under expert guidance. Consult Our Specialist! Diagnosis Of Conjunctivitis

Conjunctivitis is usually confirmed by a physical examination by your eye doctor or ophthalmologist.

Lab tests such as eyelid cultures are rarely performed. Eyelid cultures are usually carried out when you are facing recurrent infections of conjunctivitis or the infection is not getting better with medications. In certain cases an RT-PCR test may be advised for conjunctivitis caused by the viruses.

An ophthalmologist or an optician? Who do you visit to get your routine eye check-up? If your answer is an optician, you have to read this article without fail. Click Here!

Celebs affected Bipasha Basu Grover In the year, 2012, Bollywood Actress Bipasha Basu contracted conjunctivitis while she was promoting her newly launched song. The actress had to cancel her shoot due to it. Justin Bieber Canadian singer Justin Bieber took to Instagram to share about conjunctivitis. He posted a selfie stating that he contracted the infection in the left eye in the year 2017. Prevention Of Conjunctivitis

You can follow these easy tips to prevent conjunctivitis: Keep your hands clean by washing them often with soap and water for at least 20 seconds. It is advised to wash your hands thoroughly before and after cleaning, and before putting eye drops or ointment to your eye which is infected. Do not share eye drops, or personal items such as makeup, sunglasses with the person infected to prevent the occurence of conjunctivitis. Do not touch or rub your eyes. This is responsible for spreading the infections and making it even worse. Do not wear contact lenses for long-hours. Myth: Wearing dark sunglasses can prevent conjunctivitis Fact: Wearing dark glasses is advised in cases of severe conjunctivitis so as to protect the eyes from light. This is because, once infected the eyes tend to become sensitive to the light which in turn can hamper the recovery. Also, wearing glasses can protect the eyes from dust and other particles which can worsen the condition. Here’s more ways to protect your eyes. Read Article Here! Specialist To Visit

It is a must to visit your doctor at the earliest in the case of the following conditions: Pain in the eye Increased sensitivity to light or blurry vision, which remains even after wiping the tears or discharge from the eyes Bloodshot or intense redness in the eyes If your symptoms don’t improve or get worse, which includes pink eyes that do not improve even after 24 hours of taking antibiotics If your newborn is suffering from conjunctivitis If you have a weakened immune system for example an HIV infection or if you are undergoing a cancer treatment, or other medical conditions and are suffering from conjunctivitis

To get relief from the symptoms, you can visit General Physician Ophthalmologist

If you can’t go for an in-person visit, you can do a “video visit” instead. Online consultations are becoming more and more popular.

Consult India’s best doctors here. Book Appointment Now!

Treatment Of Conjunctivitis

The treatment of conjunctivitis depends on the cause of the symptoms. There are mainly three types of conjunctivitis namely viral, bacterial and allergic conjunctivitis. Different treatment options for these types of conjunctivitis are as follows:

1. Antibiotics These are effective against bacterial conjunctivitis which causes red and itchy eyes. These can be given either in drops, ointment or oral form. Example of this class of drugs include: Chloramphenicol Ciprofloxacin Moxifloxacin
2. Corticosteroids These are mostly prescribed to relieve conjunctivitis caused due to an allergen such as dust or irritant. It is also used to ease inflammation as well as pain due to the infection. Some of the commonly prescribed steroids for conjunctivitis include: Loteprednol etabonate Fluorometholone
3. NSAIDs As conjunctivitis can cause pain in the eyes along with redness and swelling, painkillers such as non-steroidal anti-inflammatory drugs (NSAIDs) are commonly recommended to get rid of pain as well as inflammation in the eyes. Your doctor may recommend ophthalmological NSAIDS such as ketorolac.

Note: For viral conjunctivitis, you just need to use cold compress. It usually does not respond to the antibiotic treatment and runs its course before it starts getting better. Stop taking antibiotics for every common health problem Antibiotics are the common medicines which are used to treat various health problems like running nose, stuffed-up head, and the annoying cough, which is not good. Antibiotics are the medicines that are effective only for bacterial infections and not viral infections. Here’s more on when to take and when not to take antibiotics. Click To Read! Home-care For Conjunctivitis

Here are some of the easy at home tips that can help you recover faster from conjunctivitis: Keep your hands clean to prevent worsening the infection. Wash away any discharge from or around your eye(s) with the help of cotton or a clean, wet washcloth. Discard cotton balls after use, and wash the used cloth with detergent and hot water. Do not use the same eye drop for your non-infected eye. Wash your personal belongings such as bedsheets, pillowcases, sheets, washcloths, and face towels with hot water and detergent; Make sure to clean your hands after you handle these items. Do not wear contact lenses until your ophthalmologist advises you to start wearing them again. Do not use contaminated objects such as towels shared by others. Make sure to clean your eyeglasses before using them. Avoid using swimming pools or watching television for extended hours.

If you have conjunctivitis, there are steps you can take to avoid reinfection once the infection goes away: Throw away and replace any eye or face makeup or makeup brushes you used while infected. Throw away disposable contact lenses and cases that you used while your eyes were infected. Throw away contact lens solutions that you used while your eyes were infected. Clean extended wear lenses as directed. Clean eyeglasses and cases that you used while infected. Complications Of Conjunctivitis

Though complications arising due to acute conjunctivitis are rare, there may be certain cases in which complications may occur. Patients suffering from Herpes Zoster Virus conjunctivitis are at the highest risk of complications such as uveitis Conjunctivitis caused by gonorrhea, chlamydia, or certain types of the adenovirus can can be serious and lethal to eyesight, because they can scar the cornea or cause secondary corneal perforation If you fail to show any improvement even after 5 to 7 days of the treatment then you must visit an ophthalmologist. Alternative Therapies For Conjunctivitis

Some of the common home/herbal remedies for treating conjunctivitis are:

Indian gooseberry: Indian gooseberry or amla is useful in the treatment of conjunctivitis. You can mix a cup of amla juice with two teaspoons of honey and consume this mixture two times in a day.

Vegetable juice: Raw juices of some vegetables such as spinach, parsley or carrot can help you recover fast from conjunctivitis. You can take these juices separately or combine these juices for maximum benefits.

Vitamin rich foods: Certain vitamins such as Vitamin A and Vitamin B2 are quite useful in conjunctivitis. You can include Vitamin A rich foods such as carrots, pumpkin, tomatoes, green leafy vegetables and Vitamin B2 rich foods such as milk, almonds, citrus fruits and bananas in your diet.

Coriander: A decoction of coriander can be made by soaking dried coriander in water. This makes for excellent eyewash that gives relief in conjunctivitis.

All the herbal remedies or home treatments should be taken only after consulting your doctor. Frequently Asked Questions How did I catch conjunctivitis? How to know if my conjunctivitis is caused by a virus or a bacteria? How long will my conjunctivitis last? How can you get rid of conjunctivitis fast? Which eye drops should I use for conjunctivitis? References Acute contagious conjunctivitis. Medgen [Internet] [accessed on 30th March, 2020] Conjunctivitis (Pink eye).Centres for Disease Control & Prevention (CDC) Ryder Eva C, Benson Scarlet. Conjunctivitis. StatPearls Publishing[Internet]; 2021 Jan Karen K Yeung.What are the risk factors for bacterial conjunctivitis (pink eye)?Medscape[Internet]. Last accessed on March, 30th, 2021 Conjunctivitis (Pink eye)-Prevention.Centres for Disease Control & Prevention (CDC)[ Internet]. Last accessed on March,30th, 2021 Conjunctivitis (Pink eye)-Treatment.Centres for Disease Control & Prevention (CDC)[ Internet]. Last accessed on March,30th, 2021 Wood Mark. Conjunctivitis: Diagnosis and Management.Community Eye Health. 1999; 12(30): 19–20. Gudgel Dan T. . Quick Home Remedies for Pink Eye. American Academy of Ophthalmology: Oct 29, 2020 H.K. Bakhru. Natural home remedies for common ailments. Orient paperbacks, 2008. 58-59 p Azari Amir A,Barney Neal P . Conjunctivitis:A Systematic Review of Diagnosis and Treatment.JAMA. 2013 Oct 23; 310(16): 1721–1729.

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Dandruff Also known as pityriasis capitis Overview Dandruff is a common hair problem that needs no introduction. It affects around 50% of people worldwide at some point in their life, irrespective of their gender and ethnicity.

Dandruff is a scalp disorder which causes the scalp to flake and/or itch. The dead cells on the scalp tend to stick to each other due to surface debris and oil on the scalp. This in turn leads to flakes with itchy scalp and also causes the hair to shed at a faster than normal rate.

Dandruff is seen to mostly occur between puberty to middle-age as this is the phase when the sebaceous glands are most active. The severity of dandruff may fluctuate with the season but it usually worsens during winter.

If left untreated, it can cause fungal infections of the skin & may also lead to severe hair fall. The common treatment options for dandruff include use of home remedies and medicated shampoos. Key Facts Usually seen in All age group Gender affected Both men & women Body part(s) involved Scalp Hair Prevalence Worldwide: 50% (2010) India: 7.6–18.7% (2015) Mimicking Conditions Psoriasis Dermatitis Eczema Alopecia Seborrheic dermatitis Ringworm Scalp folliculitis Head Lice Treatment Antifungal agents: Zinc Pyrithione, Ketoconazole, Climbazole, Selenium Sulphide, Clotrimazole & Piroctone Olamine  
Anti-proliferative agents: Coal tar Keratolytics: Salicylic acid Specialists to consult Dermatologist Trichologist Symptoms Of Dandruff

Dandruff is a common scalp disorder characterised by: Flaky white to yellowish scales on the scalp Itching of the scalp Dry or oily scalp

Flakes due to dry scalp tend to be smaller and whiter. Dandruff flakes are larger and usually yellow-tinged due to oily scalp.

Signs your dandruff may be severe: Large areas of redness or swelling on the scalp Severe itching and worsened flakes over time Having symptoms even after using anti-dandruff shampoo for a month Did you know? The word dandruff (also known as dandriffe) is derived from Anglo-Saxon origin. It is a combination of two words - ‘tan’ meaning ‘tetter’ and ‘drof’ meaning ‘dirty’. Also, scalps with dandruff shed up to about 8 lakh cells/sq cm compared to only about 5 lakh cells/sq cm in normal scalps. There are natural ways to tackle dandruff. Read More! Causes Of Dandruff

The causes of dandruff vary from person to person, but it is usually a result of improper handling of hair and scalp. According to experts, the cause of dandruff is rapid maturing and shedding of scalp cells precipitated by excessive oil secretion.

Broadly speaking, the causes can be categorised into: 1. Microbial factors A) Fungal infection Malassezia, a fungi, is one of the leading causes of dandruff. It is known to stimulate the enzyme lipase which is responsible for the production of saturated fats and unsaturated fats. While saturated fats aid in the growth and division of the fungal cells, unsaturated fats are responsible for skin inflammation and irritation. Moreover, it also alters the normal shedding of the dead cells leading to visible white flakes. B) Bacterial infection Bacteria that can be found on the scalp and may lead to dandruff include Propionibacterium acnes and Staphylococcus epidermidis. 2. Non-microbial factors Dry scalp Oily or irritated skin/hair Poor hair hygiene Use of hair cosmetics/tools Scalp disorders like psoriasis and eczema Infrequent shampooing Extreme weather conditions Risk Factors For Dandruff

You are more likely to have dandruff if:

1. Age Dandruff usually begins during teenage years and continues through middle age.That doesn’t mean older adults don’t get dandruff. For some people, the problem can be lifelong.
2. Being male Dandruff is more prevalent in males than in females.
3. Certain chronic illnesses Parkinson’s disease and other diseases that affect the nervous system also seem to increase risk of dandruff. So does having HIV or a weakened immune system.
4. Other conditions Stress and fatigue Your scalp feels oily You experience intense itching even when the scalp does not feel dry Your hair looks greasy at most times Not brushing your hair properly Leaving oily hair unattended Using harsh shampoos Using styling tools too often Diagnosis Of Dandruff

Dandruff is diagnosed by a simple physical examination of the scalp. You may even be asked a few questions about your hair care routine and symptoms. It will be done by a dermatologist (skin specialist) or a trichologist (hair and scalp specialist). Your dandruff may be classified as mild or severe and on the basis of it, your doctor may prescribe appropriate treatment. There are no blood tests or imaging tests to diagnose dandruff. Celebs affected Tyra Banks American TV personality & Model, Tyra Banks, has been pretty vocal about her struggle with dandruff. She once said that her hair is dirty & full of dandrfull & every time she scratches her scalp, a gook of nasty danruff can be seen in her nails. Prevention Of Dandruff

By taking adequate measures to improve hair health, you can minimize the chances of dandruff. Cut down on high sugar foods, fats and alcohol Develop a hair and scalp care routine according to your hair type. If you tend to have an oily scalp, frquent shampooing may help prevent dandruff. Gently massage your scalp to loosen flakes. Rinse thoroughly. If your hair tends to be dry and your scalp is sensitive, shampoo less frequently and condition your scalp in between washings. Limit hair-styling products. Hair-styling products can build up on your hair and scalp, making them oilier. Brush your hair often to improve circulation in the scalp. Do not share combs When going out, cover your hair as dirt and grease aggravates the problem Specialist To Visit

If you have dry and itchy scalp or white flakes on your scalp, then do consult a doctor to treat your condition. The best doctor to visit for your skin and hair related problems are: Dermatologist Trichologist

Dandruff may get worse if fungus Malassezia increases in number. Consult a dermatologist if: Dandruff does not get controlled in spite of frequent cleansing with over-the-counter shampoos. Flakiness also spreads to eyebrows, ears, and eyelid margins (seborrheic dermatitis). The scalp is red, swollen, or extremely itchy. Did you know that dandruff is not contagious? Unlike popular belief, dandruff does not spread from one person to another. You cannot catch this scalp condition or pass it along to someone else through person-to-person contact or even by sharing pillowcases.Talk to our professional and get help. Consult Now! Treatment Of Dandruff

In most patients, dandruff can be controlled by daily washing with gentle anti dandruff shampoo. If your dandruff is severe, the doctor may prescribe medicated shampoos that contain chemicals such as Zinc Pyrithione, Selenium sulphide, Ketoconazole, Coal Tar and Salicylic Acid. These treatment options are aimed at treating the cause of the dandruff and managing the symptoms.

1. Antifungal agents As the name suggests, this class of drugs are aimed at treating the fungus which is responsible for the dandruff. Most of these drugs work by affecting the membrane of the fungus which leads to death of the microbes thereby aiding in the treatment. Examples of this class of drugs include: Zinc Pyrithione helps to prevent itching and flaking Ketoconazole acts as a broad spectrum antifungal agent by disrupting the membrane function Climbazole works by hindering the normal functioning of the fungal cell membrane Selenium Sulphide based shampoos can discolor the hair and scalp. Clotrimazole inhibits the synthesis of ergosterol (a type of fat) thereby aiding in the treatment Piroctone Olamine inhibits the degradation of sebum triglycerides to oleic acid and arachidonic acid which are responsible for inflammation and itching
2. Anti-proliferative agents Coal tar is used in the form of tar based shampoos and it is one of the most common examples of this class of anti-dandruff chemicals. It contains more than 10,000 of chemical compounds that inhibit proliferation (division of the microbes) and inflammation. This is mainly used to relieve the symptoms of dandruff.
3. Keratolytics It acts as a keratolytic agent which is known to cause the skin to shed dead cells from the top layer by increasing the moisture in the scap. As it prevents clumping of the dead cells together it helps to clear dandruff from the scalp. Salicylic acid is one of the most common examples of keratolytic agents.

These drugs are available in various forms such as shampoos, lotions/applications, creams, herbal oils and gels. Home Care For Dandruff

By making small changes in your lifestyle, you can get rid of dandruff effectively. Here are some effective ways to manage dandruff:

1. Brush your hair regularly Brushing your hair ensures that blood circulation in your scalp is maintained. When you brush your hair, you remove dead cells from your head. But brushes with sharp ends will cause swelling and reddish patches in your scalp. Use a paddle brush. Brushes that have balls in the ends are even milder.
2. Avoid harsh shampoos Certain chemicals in shampoos can lead to dry and irritable skin and precipitate itching and dandruff. Choose a mild herbal shampoo that is gentle on the hair and has a compatible pH balance.
3. Avoid styling tools Heat and chemicals make your hair weak and damage the scalp. Straightening, blow-drying, and perming or any kind of artificial heat can cause irreparable damage and precipitate dandruff.
4. Pick an anti-dandruff shampoo Some commonly recommended anti-dandruff shampoos available over the counter are Pyrithione zinc shampoos, Tar-based shampoos and Ketoconazole shampoo. It is recommended to use these shampoos daily however as dandruff gets better, alternate it with some other shampoo to avoid loss of hair health.
5. Eat healthy Enrich your diet with optimum portions of green vegetables, fish oil, lean proteins and fruits. Include green leafy veggies such as broccoli, kale, lettuce to your daily diet. It encourages and improves your skin, hair, nails and overall health. Lean proteins (eggs, nuts, beans) help in building healthy skin and hair. So add these to your daily servings in some or the other form.
6. Get a little sun Sunlight may be good for controlling dandruff. But because exposure to ultraviolet light damages your skin and increases your risk of skin cancer, don’t sunbathe. Instead, just spend a little time outdoors. And be sure to wear sunscreen on your face and body. Complications Of Dandruff

Dandruff should not be taken lightly because It may be pointing towards overgrowth of a fungus (called Malassezia) which despite being present on the scalp of most people does not cause any symptoms It can slow down your hair growth It denotes a microinflammation, which might be easily overlooked as there are no readily observable symptoms.

So if you have dandruff or itchy scalp with white flakes, do consult a dermatologist to know the cause of it and get it treated before it becomes severe in nature. Alternative Therapies For Dandruff

Home remedies for dandruff 1. Vinegar: To clean your scalp of dead skin and fungi, mix half a cup of white/apple cider vinegar with equal volume of water and pour the mixture over your hair. Leave it on for 10 minutes, then scrub and rinse off with a mild shampoo or just water.

1. Fenugreek (Methi): Make a paste of two tablespoons of fenugreek powder and half-cup water. Apply on the scalp and leave it in for 30-45 minutes; rinse off with a mild shampoo to strengthen and clean your hair thoroughly.
2. Lemon (Nimbu): Massage the juice of two lemons into the scalp and then rinse off with a mixture of lemon juice and water. Besides its antifungal properties, the acidity of the lemon will restore the natural pH balance of the scalp.
3. Salt/Baking soda: Generously sprinkle some salt (table or Epsom)/baking soda on the scalp and a massage gently to exfoliate the scalp. Rinse off with a mild shampoo for a clean look.
4. Neem: Add about two handfuls of neem leaves to water (half litre), bring it to a boil and then let it soak overnight. Wash your hair with strained liquor. Neem is antifungal and relieves itching.
5. Curd (Dahi): Apply fermented curd on the scalp and leave it in for about an hour. Then rinse off with shampoo. The acidic nature of curd will fight dandruff and act as a conditioner as well.
6. Orange (Santra) peel: Apply a mixture of orange peel and lemon on the scalp and wash off after 30 minutes. The acidic nature of the mixture conditions the hair and combats dandruff.
7. Honey (Sahed): Use 1/4 teaspoonful of water mixed with 1 tablespoon honey to massage the scalp for 2-3 minutes and rinse off after 3 hours for shiny dandruff free hair.
8. Coconut (nariyal) oil and camphor (kapoor): Take 2-3 teaspoons of warm coconut oil and dissolve a pinch of camphor in it. Massage gently on the scalp at night. Wash your hair in the morning with a mild shampoo. Repeat it once or twice a week.
9. Tea tree oil: Mix tea tree oil with water in the ratio (1:3) and spray it on your scalp. Pat the excess of the water but do not rinse it off. Do Natural Hair Fall Solutions Really Work? Here are a few top 11 hair fall solutions that start directly from home ingredients. According to the American Association of Dermatology, for any person, it is normal to shed around 100 strands of hair a day. However, if a person sheds more than the usual number on a daily basis, then it is a sign of hair fall. When suffering from hair fall, the primary treatment option starts at home. Most people tend to swear by home remedies to prevent hair fall and aid hair growth. But do these home remedies really work? Read to know more about them. Check Article Here! Frequently Asked Questions If I have dandruff, can I oil my hair? What is dandruff a sign of? Should I wash my hair everyday if I have dandruff? Can dandruff cause hair loss? How do I know if it’s dandruff or dry scalp? References Borda LJ, Wikramanayake TC. Seborrheic Dermatitis and Dandruff: A Comprehensive Review. J Clin Investig Dermatol. 2015 Dec;3(2). Manuel F. Is dandruff a disease? Int J Trichology. 2010 Jan;2(1):68. Narshana M and Ravikumar P: An overview of dandruff and novel formulations as a treatment strategy. Int J Pharm Sci Res 2018; 9(2): 417-31. Manuel F, Ranganathan S. A new postulate on two stages of dandruff: a clinical perspective. Int J Trichology. 2011;3(1):3-6. How to treat dandruff. Scalp. American Academy of Dermatology (AAD). Ranganathan S, Mukhopadhyay T. Dandruff: the most commercially exploited skin disease. Indian J Dermatol. 2010;55(2):130-134. Sheth U, Dande P. Pityriasis capitis: Causes, pathophysiology, current modalities, and future approach. J Cosmet Dermatol. 2021 Jan;20(1):35-47. Tucker D, Masood S. Seborrheic Dermatitis. [Updated 2021 Aug 3]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Available from:

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Dry eyes Also known as Dry eye disease (DED), Dry eye syndrome (DES), Keratoconjunctivitis sicca (KCS), Keratitis sicca and Ocular surface disease Overview Tears produced by the eyes are necessary to keep them moist and comfortable. Dry eyes is a very common condition characterized by reduced tear production, excessive tear evaporation, and an abnormality in the production of mucus or lipids (fats or oils) normally found in the tear layer, or a combination of these.

Dry eyes cause several irritating symptoms such as stinging and burning sensation in the eye, blurred vision, and gritty or scratch feeling in the eye that affects quality of life.

This condition can result due to advancing age or several underlying systemic diseases such as Sjogren’s syndrome, arthritis, lupus, thyroid disorders etc. Various lifestyle factors such as exposure to dust, pollution, sun rays, computer screens, cigarette smoke also plays an important role in the development of dry eyes.

Dry eyes can be prevented and managed by adopting lifestyle changes such as limiting screen time, regular blinking, washing eyes frequently, staying hydrated, using a humidifier at home, and wearing glasses to protect the eyes. Artificial tears available as eyedrops is the mainstay therapy for this condition.

Any related symptoms of Dry eyes should not be ignored as it can lead to corneal ulcers, scarring, and even vision loss. Key Facts Usually seen in All age groups but more common in elderly Gender affected Both men and women but more common in women Body part(s) involved Eyes Prevalence Worldwide: 5-34% (2015) India:18.4% to 54.3% (2018) Mimicking Conditions Conjunctivitis Anterior blepharitis Demodex blepharitis Cicatricial conjunctivitis Bullous Keratopathy Contact lens-related keratoconjunctivitis Eyelid malposition Keratitis Necessary health tests/imaging Patient history and physical examination Examination of tear stability: Tear break up time (TBUT) Examination of tear volume: Schrimer’s test, Tear film meniscus & Slit lamp test Examination of tear films: Tear film osmolarity Examination of the ocular surface: Fluorescein staining & Lissamine green staining Examination of eye-lids: Blink rate & Meibomian gland evaluation Evaluation of systemic disease Treatment Artificial tears Anti-inflammatory medications Topical corticosteroids Topical cyclosporine A Antibiotics: Doxycycline, Minocycline & Azithromycin Punctal plugs: Temporary/dissolving plugs & Semi-permanent plugs Surgery See All Symptoms Of Dry Eyes

The symptoms of the dry eyes are often nonspecific and it does not always start with dryness. In fact, in various cases patients experience watery eyes as a symptom of dry eyes. This is because too much drying of the eyes causes the body to produce more tears to compensate for the water loss.

The other signs and symptoms of dry eyes include: Blurred vision that fluctuates throughout the day Stinging and burning sensation in the eyes Gritty or scratch feeling in the eyes Red eyes Itching in the eyes (particularly in the cornea) Photophobia (increase sensitivity to light) Feeling of having some foreign substance in the eyes Stringy mucus near the eyes Sticky eyelids especially during morning Blepharitis (inflammation in the eyelids) Tired eyes with a desire to close eyes more often Feeling of heavy eyelids Difficulty in opening the eyelids Sharp and dull pain behind the eyes Difficulty in wearing contact lenses

Do you wear contact lenses? Have a look at some of the common mistakes that contact lens wearers make! Read Now!

Causes Of Dry Eyes

Tears play a very important role in maintaining the overall health of the eyes by: Providing a smooth surface for optimal vision Protecting the cornea (the transparent, protective front part of the eye) Lubricating the eyes

Tears form a multilayered film made of the following three layers that keep the eye smoothly lubricated: The superficial layer is made of lipids (fats or oils) lining the upper and lower eyelids. This layer seals the tear film to reduce evaporation. The middle layer is basically a dilute salt water solution. This layer helps in keeping the eyes moist, as well in flushing out any dust, debris, or foreign objects that may get into the eye. The innermost mucosa layer, made up of mucus. This mucus helps the overlying watery layer to spread evenly over the eye.

Dry eyes develop when there is a problem in either of the layers, imbalance between tear production and drainage or loss of tear film stability. The various causes are discussed below in detail:

1. Inadequate amount of tears: The reduced tear volume around the eyelids is the main cause of dry eyes. The various reasons for this are: Aging Health conditions like Sjögren’s syndrome, rheumatoid arthritis (RA), lupus, scleroderma, sarcoidosis, xerophthalmia due to Vitamin A deficiency tend to decrease tear production Medications like antihistamines, decongestants, antidepressants, antihypertensives, and oral contraceptives.
2. Excessive tear evaporation: The symptoms of dry eyes can also develop due to increased evaporation of tears. This can occur due to the following: Less blinking: Long hours of reading, driving or working on a computer can reduce blinking and trigger evaporation of tears. Conditions like Parkinson’s disease also reduce the frequency of blinking. Meibomian gland dysfunction: Meibonian glands are small oil glands on the edge of the eyelids. They produce the oil/ lipid layer that forms the superficial layer of tear film that protects against evaporation of tears.

Blockage of these glands, more commonly associated with conditions like rosacea, psoriasis, scalp and face dermatitis or taking oral isotretinoin medication leaves inadequate lipid/oil to cover the watery tear layer to prevent its evaporation. Blepharitis: An infection along the eyelids or the eyelashes makes the bacteria break down the oil, leaving insufficient oil to prevent any evaporative loss of tears and dry eyes. Certain health conditions: Conditions such as stroke or Bell’s palsy, make it difficult to shut the eyes. Hence, the eyes may become dry due to tear evaporation.

1. Abnormality in the production of mucus or lipids found in the tear layer: Chemical burns to the eye or some autoimmune conditions, like Stevens-Johnson syndrome and cicatricial pemphigoid can lead to abnormal production of lipids in the tear layer. This leads to poor spreading of the tears over the surface of the eye, thereby causing dryness despite the presence of sufficient tears.
2. Combination of the above factors Risk Factors For Dry Eyes
3. Age The risk of developing dry eyes increases with advancing age due to decreased tear production as a part of the natural aging process. People above 65 years of age mostly start experiencing symptoms of dry eyes.
4. Gender Women are more likely to develop dry eyes due to hormonal changes in their lifetime caused by pregnancy and menopause. The use of oral contraceptives is also linked to being associated with dry eyes.

Want to know your health status? Get our women wellness package now! Click Now! 3. Screen time The exposure to digital screens is a well known risk factor for dry eyes. The continuous exposure to screen decreases blinking and triggers tear evaporation which is a significant factor for Dry eyes. 4. Ethnicity Studies suggest that dry eyes is more common in Asians as compared to the white population. 5. Medical conditions Several inflammatory and autoimmune conditions are also associated with an increased risk of dry eyes. They include: Rheumatoid arthritis Diabetes Thyroid dysfunction Blepharitis (inflammation of the eyelids) Rosacea Seborrhoeic dermatitis Staphylococcal infection Demodex mite infestation Bell’s palsy Sjorgen’s syndrome Graft v/s host disease Herpes infection Hepatitis C Androgen insufficiency Heat or chemical burns Acne Gout 6. Medications The use of certain medications are also closely associated with dryness of the eyes due to decreased tear production. This includes medications for high blood pressure, allergies, anxiety, depression, cough, insomnia. 7. External exposure Exposure to dry climate, chemical fumes, pollution, and sun increase the risk of developing dry eyes. Smoking and secondhand smoking both are the risk factors of dry eyes as it exposes the eyes to harmful irritants.

The people living in air conditioners also have a higher chance of having dry eyes. 8. Contact lens The use of contact lenses decreases the sensation of cornea and can lead to dry eyes. 9. Previous eye surgery Any eye surgery in the past such as LASIK (laser) surgery, lid surgery, or cataract surgery can decrease tear production and lead to dry eyes. 10. Eye drops The excessive use of topical medications in the eyes for some other eye conditions such as glaucoma is also associated with the risk of dry eyes. 11. Diet Vitamin A and omega-3-fatty acids play a very vital role in maintaining the health of the eye. So, deficiencies of both can lead to dryness in the eyes.

Vitamin A deficiency is also called xerophthalmia, which can start from dry eyes and even progress to blindness in severe cases. Did you know? Studies suggest that spending too much time on electronic gadgets like television, smartphones and computers could increase the risk of diabetes in children. Read about it in detail. Know Now! Diagnosis Of Dry Eyes

The symptoms of dry eyes are very similar to eye infections and allergies. So, it is very necessary to distinguish between these diseases through specific clinical tests. Antiallergic medications, if given in dry eyes because of incorrect diagnosis may worsen the condition of the eye. 1.Patient history and physical examination The doctor takes patient history which includes information about the medications taken by patients, medical problems, and environmental factors which may contribute to the symptoms of dry eyes. The doctor also checks for: The amount of tears eyes are making The structure of eyelids Time, place, and diurnal variation of symptoms Workplace stress Living conditions (dry, dusty air and air conditioning) Systemic diseases Medication history 2. Examination of tear stability

Tear break up time (TBUT) This test diagnoses how long the tear film lasts after blinking. For this, a small amount of dye is placed in the eyes. The time up to which the dyed tear film covers the whole eye after blinking is recorded. The tear film does not last long in case of Dry eyes. 3. Examination of tear volume

Schrimer’s test This test assesses the quantity of tears produced by the eyes. In this, the eyes are desensitized by putting eye drops and then a small piece of paper is placed on the edge of the eyelid. The eyes are allowed to close for 5 minutes. The amount of moisture on the paper indicates the quantity of tears.

Tear film meniscus In this test, the height of the tear film is determined which helps in diagnosing the amount of tears produced by the eye.

Tear meniscus height is 0.2 ± 0.09 mm in patients with dry eyes and 0.5 ± 0.02 mm in patients with healthy eyes. A foamy tear film is an indicator of an altered lipid layer in patients with meibomian gland dysfunction.

Slit lamp test In this, the quantity of tears produced by the eyes is measured through a microscope known as a slit lamp. A liquid is put into the eyes which helps in clear visualization of the tears. The practitioner looks in the eye and eyelids by directing a bright light into the eyes. 4. Examination of tear films

Tear film osmolarity In this, the osmolarity of tears is determined. Tear osmolarity is a measurement of the concentration of salt in the tears. Normal osmolarity is essential for normal tear production. The value of osmolarity increases with the severity of the Dry eyes.  
5. Examination of the ocular surface The surface of the eye is examined using a microscope (slit lamp) and dyes. Dyes help in visualizing the surface clearly. The common dyes used to study eyes are fluorescein and lissamine green.

Fluorescein staining It is mostly used to assess corneal damage. The dye fluorescein is instilled into the tear film and studied after 1 to 3 minutes.

Lissamine green staining It is mostly used to assess conjunctiva and lid margin damage. The dye fluorescein is instilled into the tear film and studied after 1 to 3 minutes. 6. Examination of eye-lids

Blink rate Blinking plays a very significant role in keeping the eye moist by distributing the tear fluid over the eye surface. The normal blink rate is:

While speaking: 15.5 ± 13.7 blinks/minute

During reading and computer work: 5.3 ± 4.5 blinks/minute

The reduced interval between blinks by about 2.6 to 6 seconds indicates dry eyes.

Meibomian gland evaluation Meibomian glands play a very significant role in maintaining overall health and stability of the eye. The gland produces meibum, the reduction of which can cause evaporative Dry eyes due to altered lipid composition.

The function of the meibomian gland can be determined by evaluating meibum quantity and quality. The turbid and viscous appearance of meibum indicates dysfunction of the gland. Differentiating between insufficient tear production and excessive tear evaporation The above tests also help in determining the cause of dry eyes: The reduced tear meniscus and low schirmer test indicates deficiency of tears. Altered lid margins, thickened meibomian gland secretion, reduced tear film break up time are an indicator of hyper evaporative dry eye. Ocular surface damage and elevated tear film osmolarity can occur with both forms. Evaluation for systemic disease There are various diseases that may cause dry eyes, particularly primary Sjogren’s syndrome. In various cases secondary Sjogren syndrome caused by other conditions may also cause dry eyes. Such conditions include: Rheumatoid arthritis Lupus Progressive systemic sclerosis Dermatomyositis

Other systemic abnormalities such as Parkinson’s disease, androgen deficiency, thyroid disease, and diabetes have also been associated with Dry eyes. The clinical diagnosis of these diseases are also done, in case of any suspicion. Celebs affected Venus Williams Venus Williams, a successful American tennis player suffered from dry eyes due to Sjogren syndrome. She admitted in an interview that she had difficulty wearing contact lenses due to this condition. Jennifer Aniston Jennifer Anistion, a celebrated American actress also suffered from dry eyes. She admitted in an interview that she was addicted to eye drops. Did you know? People with diabetes have been found to be at an increased risk of blindness and other eye problems such as glaucoma, cataract and retinopathy. However, effective management of diabetes and by following a set of precautions you can preserve your vision in the years to come. Here are a few ways to avoid eye complications in diabetes. Read To Know! Specialist To Visit

It is very important to consult doctor in case: You are experiencing burning, stinging, scratching or watery eyes especially in windy conditions Your symptoms are not going away by various proven home remedies Your vision is fluctuating while using digital devices even after using glasses You are facing difficulty in performing normal day to day activities

The doctors that may help to diagnose the dry eyes include: General physician Optometrist Ophthalmologist

Most people are unaware of the right eye specialist. Know about different eye specialists in detail. Tap To Know! Prevention Of Dry Eyes

1. Blink consciously Blinking helps in spreading tears over the ocular surface and also keeps foreign matter and irritants out of the eyes. The act of blinking frequently, especially while using digital screens helps in keeping the eyes moist and prevents dryness.
2. Boost the humidity The dry climate often triggers dry eyes. The humidity can be increased by keeping the bowls of water around the room both at home and workplace. This helps in making the air humid.
3. Avoid straining the eyes Eyes strain when they are used to concentrate on something for a long period of time. Such eye straining activities should be minimized or avoided, if possible. This includes avoiding: using computers, smartphones, tablets and gaming consoles for a long time driving for a long time reading for a long time or in dim light
4. Protect your eyes Eyes should be protected to avoid direct contact with triggers. This can be done by wearing protective glasses while using the screen, using sunglasses while going outside to reduce exposure to dry winds, sun, and smoke which can irritate your eyes.
5. Limit screen time Prolonged and continuous daily use of digital screens is one of the leading causes of eye disorders popularly known as computer vision syndrome (CVS). Dry eyes can be prevented by following the 20/20/20 rule. The rule states that take a 20-second break from your digital device every 20 minutes and look at something 20 feet away. Set an alarm on your smartphone as a reminder.

Here are several other ways that helps in preventing eye strain caused due to CVS: Click To Read!

1. Quit smoking Cigarette smoking exposes the eye to harmful chemicals that can cause dry eyes. It can be prevented by quitting both active and passive smoking.

Tobacco Threatens..!! Say No To Tobacco Now. How? Let Us Help. Click Here!

Treatment Of Dry eyes

The treatment of dry eyes involves various steps and is based upon the severity of the conditions of the eye.

Avoiding the triggers of dry eyes such as cigarette smoke, dry heating air, air conditioning etc is an important part of the protocol. 1. Artificial tears They are the mainstay therapy that are used in all grades of Dry eyes irrespective of the severity. They are benzalkonium chloride (preservative) free eye drops that are designed to increase the tear film stability. They are the preparations containing polyvinyl alcohol, povidone, hydroxypropyl guar, cellulose derivatives, and hyaluronic acid as the main agent. These drops are available in the form of gels, ointments, and solutions.

In case of meibomian gland dysfunction, artificial tears containing lipids such as triglycerides, phospholipids, and castor oil are used. 2. Anti-inflammatory medications Inflammation in the ocular surface and lacrimal gland is observed even in moderately severe dry eyes. For this, anti-inflammatory treatment is required in cases of moderate to severe conditions of the eye. 3. Topical corticosteroids Studies have shown that instillation of corticosteroids for 2 to 4 weeks are helpful in reducing the symptoms of dry eyes. But, this therapy is used only for short-term use as long term therapy is associated with some complications. 4. Topical cyclosporine A Cyclosporine A is an immunosuppressant that aids in reducing inflammation. Topical application of cyclosporine increases production of tear and also reduces symptoms like blurry vision, ocular dryness, and foreign body sensation.

In case of cyclosporine intolerant patients, tacrolimus eye drops are used. 5. Antibiotics Several antibiotics with anti-inflammatory properties are also used to treat Dry eyes. They are used in case of meibomian gland dysfunction and blepharitis associated with Dry eyes. Some of the common antibiotics used for dry eyes are: Doxycycline Minocycline Azithromycin 6. Punctal plugs These are tiny devices that are inserted into the tear ducts of the eye. They reduce drainage of the tears that help in keeping the eye moist. There are two types of punctal plugs

Temporary/dissolving plugs These plugs are made of dissolving material such as collagen that ultimately absorbs into the body. They can last in the eye from a few days to months.

Semi-permanent plugs These plugs stay in the eyes for years as they are made of longer lasting material such as silicone or acrylic. They can be removed by your ophthalmologist if needed. 7. Surgery Various surgical options for treatment of dry eyes syndrome are: Tarsorrhaphy: It refers to surgical joining of upper and lower eyelids partially or completely to promote corneal healing Amniotic membrane transplantation: In this procedure a piece of amniotic membrane is applied to the surface of the eye in order to reconstruct the ocular surface. Keratoplasty: This is a surgery performed on the cornea, especially corneal transplantation. It is used in severe cases where persistent corneal ulceration and perforation are seen. Home-care For Dry eyes

1. Avoid self medication There are various medications that can cause dryness of the eye. It is necessary to consult your doctor while taking any medication.
2. Focus on your diet There are certain fatty acids, vitamins, and minerals that keep the eyes hydrated. These types of foods should be included in your diet. These include: Omega fatty acids (fish, oils, and dairy products) Vitamin A (pumpkins, apricots, carrots, tomatoes, spinach, and dairy products) Vitamin C (citrus fruits and juices such as orange, grapefruit, lemon, lime), apples, bananas, tomatoes, and cooked spinach) Zinc (whole grains, dairy products, sweet corn, peas, lentils, and nuts) Good sources of lutein and zeaxanthin include eggs, corn, kiwi fruit, grapes zucchini, and leafy greens such as spinach, kale, collards, and broccoli. Vitamin E (whole grain cereals, almonds, hazelnuts, sunflower seeds, sweet potato, and peanut butter)
3. Keep yourself hydrated Water helps in the formation of tears. Dehydration can trigger the symptoms of dry eyes especially if you are living in a hot and dry environment.
4. Take adequate sleep Not getting enough sleep can lead to dry and itchy eyes. It is also observed that the eyes may produce less tears after a night of insufficient sleep. Adequate sleep may help in faster recovery of the patient having dry eyes.

A sound sleep keeps the mind calmer and also helps in preventing uninvited headaches on weekends. Explore our range of products that may help you to get better sleep. Get Help!

1. Maintain eye lid hygiene Eyelids should be kept clean. Hot compresses on eyelids and warming masks are advised as they are known to increase tear film stability and thickness of the lipid layer.
2. Avoid dry environment Dry climate triggers dryness in the eyes. Such situations can be avoided like avoiding air getting blown in your eyes by directing car heaters away from your face. Complications Of Dry Eyes
3. Eye complications The inadequate tear production can lead to several complications in the eye which can range from mild to severe. Initially, dry eyes cause little discomfort, but without the proper medical attention, the condition can damage the cornea.

The complications of the dry eyes include: Fluctuations in vision Scarring of the cornea Infectious keratitis (infection of cornea caused by bacteria, viruses, fungi and parasites) Eye ulceration Eye infections Eye inflammation Wound in the cornea Conjunctivitis Vision loss 2. Other complications The chronic dry eyes affects quality of life and can lead to: Anxiety Depression Sleep disorders Mood disorders Dyslipidemia Migraine headaches Alternative Therapies For Dry eyes

Herbal-based drugs

Goji berries This tree is native to Asia and its fruits, commonly known as goji berries are known for its medicinal and nutritional values. The administration of goji berry extract has been found to relieve Dry eyes. This is confirmed by various tests such as Schirmer’s test score and tear breakup time (TBUT).

Polygonum cuspidatum It is a plant that is found in North America and Asia and is frequently used in traditional Japanese and Chinese medicine. Studies have shown that the administration of the extract of this plant helps in preserving the eye through its anti-inflammatory properties.

Chamomile The washing of eyes with chamomile tea is used for the treatment of eye infections and other eye diseases. Living With Dry eyes

1. Try home remedies There are various home remedies which provide relief in dry eyes. This includes applying warm compress to the eyes, taking fish oil supplements, drinking plenty of water, and increasing the humidity at work or in your house by using a humidifier.
2. Try scleral contact lens The people who wear contact lenses and develop dry eyes should use scleral lenses instead of traditional lenses. These lenses are placed over the white part of the eye known as sclera. They protect the eyes and keep them hydrated for a long period of time.
3. Take regular breaks It is very important to take frequent short breaks and blink eyes regularly while reading or working on computer screens. Keep your eyes closed for sometime when possible such as during a phone call. This will decrease the strain on your eyes.
4. Adjust the position of computer screens The total eye surface exposure and tear evaporation is reduced when we look down. This helps in keeping the eye moist. The same can be applied while working on computer screens by keeping them at a low level.
5. Make necessary light adjustments The people having dry eyes suffer from photosensitivity which is triggered by bright lights. This can be reduced by avoiding bright bulbs immediately overhead. This will help in reducing brightness and also minimize reflection on surfaces such as on computer screens.
6. Stay away from vents It is advised to stay away from vents as the dry air blowing directly in your eyes can make dry eyes worse.
7. Keep eye drops handy The patient of dry eyes should always keep the eye drops with them so that it can be used whenever the person starts to feel drying of eyes.
8. Join a support group Connecting with people having similar condition can help in discovering various things that could help in faster recovery. Frequently Asked Questions How do I prevent dry eyes while wearing contact lenses? Can dry eyes be cured? Are the symptoms of dry eyes become more prevalent in particular seasons? Can dry eyes cause blindness? Do watery eyes can be a symptom of dry eyes? References Dry Eye, National Health Institute, Last Updated On: 08th April, 2022. Matossian C, McDonald M, Donaldson KE, Nichols KK, MacIver S, Gupta PK. Dry eyes: Consideration for Women’s Health. J Womens Health (Larchmt). 2019 Apr;28(4):502-514. doi: 10.1089/jwh.2018.7041. Epub 2019 Jan 29. PMID: 30694724; PMCID: PMC6482917. Vision Health Initiative (VHI), Centers For Disease Control and Prevention, Last Updated On: 04th February, 2020. Dry Eye, American Optometric Association. Messmer EM. The pathophysiology, diagnosis, and treatment of Dry eyes. Dtsch Arztebl Int. 2015 Jan 30;112(5):71-81; quiz 82. doi: 10.3238/arztebl.2015.0071. PMID: 25686388; PMCID: PMC4335585. Golden MI, Meyer JJ, Patel BC. Dry Eye Syndrome. [Updated 2022 Jun 27]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Dry eyes, Academy Of Ophthalmology, Last Updated On: August 2018. Reyhani M, Aghamollaei H, Jadidi K, Barzegar A. Herbal-Based Drugs for Dry Eye; Treatment and Adverse Reactions. Indian Journal of Traditional Knowledge (IJTK). 2021 Mar 3;20(1):33-40.

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Dry Skin Also known as Xeroderma, Xerosis, Xerosis cutis and Asteatosis Overview Dry skin refers to rough, flaky, itchy, or scaly skin. It is caused by disturbed skin barrier and lack of natural lipids in the skin. Dry skin can be seasonal or can develop due to some underlying medical conditions such as dermatitis, psoriasis, hypothyroidism, hyperthyroidism, diabetes, etc.

The symptoms of dry skin can be triggered by using harsh cleansers, cold weather, and frequent exposure of water. The people who are working in certain occupations such as catering, hairdressings, healthcare, construction, woodwork, and rubber industry are at higher risk of developing dry skin due to continuous exposure to water and harsh chemicals. Stress, anxiety, and lack of water intake can also make the skin more prone to dryness.

Dry skin can be easily managed and treated through self care and medical help. Keeping the skin moist through moisturizer and protecting the skin from sun round the year are the fundamental keys to manage it. Wearing loose cotton clothes over tight synthetic fabrics are also of great help.

If not treated timely, dry skin can make it more prone to infections, severe itching and more severe skin conditions like eczema, contact dermatitis etc. Key Facts Usually seen in Infants and children Adults above 60 years of age Gender affected Both men and women but more common in women Body part(s) involved Skin Prevalence Worldwide: 29.4% (2018) Mimicking Conditions Ichthyosis vulgaris Atopic dermatitis Stasis dermatitis Irritant contact dermatitis Allergic contact dermatitis Nummular dermatitis Scabies Tinea corporis Psoriasis Cutaneous T-cell lymphoma Necessary health tests/imaging Physical examination and medical history Biopsy: Shave biopsy, Punch biopsy & Excisions Treatment Moisturizers: Glycerin, Urea, Lanolin & Propylene glycol Medications: Clobetasone, Hydrocortisone, Betamethasone & Clobetasol See All Symptoms Of Dry Skin Dry skin is mostly seasonal, typically occurring during winters. The symptoms may vary based on a person’s age, skin tone, health conditions, living environment and can include: 1. Dryness As the name itself suggests, the typical sign of dry skin is dryness of skin because of lack of moisture and natural oils. It also causes fine lines on the skin that sometimes itches. 2. Flaking Excessive loss of moisture also causes flaking of skin that gives a rough texture to the skin. 3. Cracking Dry skin can also cause cracks to form due to shrinking of the skin. These cracks can become deep and may bleed also. 4. Itching Dry skin also causes itching. Some people experience itching all the time that interferes with routine chores such as driving, sleeping, etc.

Irritated with continuous itching? Check out some home remedies to fight it better. Tap To Read!

1. Pain The already cracked and flaked skin often feels painful as well. The exposure to even water causes burning sensation to the skin of people affected with dry skin.
2. Wrinkles The skin of people with dry skin loses its strength due to loss of water and develops a rough texture. This is most common at old age.
3. Peeling Peeling refers to the renewal of the uppermost layer of skin – epidermis. It is a natural process to shed dead skin cells. Dry skin increases the shedding process which causes skin to peel off easily.
4. Skin infections The people affected with dry skin are more prone to skin infections due to the breaks and cracks in the skin. The cracks allow the penetration of microbes inside the skin that can lead to infections such as fungal skin infections.

Read in detail about fungal skin infections. Click To Read! Causes Of Dry Skin

Before understanding the causes of dry skin, it is important to know the structure and composition of skin: The natural skin barrier consists of specialized cells known as corneocytes. These corneocytes are fixed in the lipid rich layer of the skin. The disturbance in the size, number, and arrangement of corneocytes impairs the skin barrier. The normal skin should be able to store 10-20% of water content. The changes in water holding capacity, both too high and too low also affects the skin barrier. The composition of lipids in the uppermost layer is also affected by various factors like age, genetic disposition, diet (e.g., percentage of essential fatty acids) as well as drugs (e.g., cholesterol-lowering agents).

Dry skin is caused due to disturbance in this natural barrier function and/or lack of moisturizing factors in the skin. The various causes that can either alter the lipid composition or can decrease the content of moisturizing factors can be grouped as: A. External causes

1. Skin cleansing: Excessive exposure to water can remove natural oils from the skin, making it dry. The following daily activities can cause it: Frequently taking long hot showers Excessive scrubbing of the skin Frequent washing of the hands Using harsh soaps Using alkaline soaps and detergents Excessive use of sanitizers
2. Environmental factors: Some environmental factors can also cause dry skin. These include: Living in cold weather where humidity is low Intense exposure to sunlight Using air conditioning system
3. Occupational factors: Some people have constant exposure to the agents that remove moisture from the skin and cause dry skin. This includes people working in hairdressings, housekeeping, catering, metal workers, construction, agriculture etc. Healthcare professionals are also at increased risk of dry skin because they have to wash their hands frequently. B. Internal causes These are the uncontrollable factors and include various disorders that can cause dry skin. This can be:
4. Dermatological causes

Inflammatory skin disorders: There are various skin disorders that can cause dry skin such as : Atopic dermatitis Allergic contact dermatitis Irritant contact dermatitis Seborrheic dermatitis Perioral dermatitis Dyshidrotic eczema Nummular eczema Psoriasis Scabies Skin infections Xeroderma pigmentosum Cutaneous T cell lymphoma Lichen planus Urticaria Drug eruptions

Genodermatoses: It refers to rare inherited skin diseases that can influence the texture, color and structure of skin depending upon the type. Common example include ichthyosis in which the skin becomes severely dry.

Infectious dermatose: These are the skin conditions that are caused by bacteria, virus, fungi, or parasites. In the chronic stage, they also cause dry skin. The disease includes pediculosis and scabies.

Neoplasms: Some forms of cancers such as cutaneous lymphoma (cancer of white blood cells) can also cause dry skin.

1. Psychiatric causes

Obsessive compulsive disorder (OCD): Some patients of OCD have the addiction of excessive cleaning and washing which can be the cause of dry skin.

Eating disorders: It includes anorexia nervosa which is characterized by self starvation that can lead to lack of essential nutrients and vitamins required to keep the skin healthy.

Alcohol addiction: The excessive consumption of alcohol causes dehydration which can eventually lead to dry skin. It can also worsen underlying skin conditions. Heavy drinking can cause alcohol use disorder (AUD) which increases the chances of several skin disorders such as dry skin, skin infections and skin cancers. According to The National Institute on Alcohol Abuse and Alcoholism, heavy drinking refers to : Females: More than 3 drinks per day or more than 7 drinks per week. Males: More than 4 drinks per day or more than 14 drinks per week.

1. Dietary causes

Malnutrition: Dietary causes such as deficiencies of Vitamin A, Vitamin D, zinc and iron can also cause dry skin.

Dehydration: Insufficient fluid intake and excessive perspiration can also cause dry skin.

1. Drug-related causes Retinoids, topical corticosteroids (prolonged use), diuretics, lipid-lowering agents, calcium antagonists, beta blockers, antirheumatic drugs, contraceptives/antiandrogens, cytostatic agents, radiation dermatitis (following radiation therapy), immunomodulators can also make the skin dry.
2. Internal diseases/conditions
3. Endocrine and metabolic disorders: There are various diseases that can cause dry, cracked and flaky skin. These disorders include: Chronic kidney disease Diabetes mellitus Liver disorders (primary biliary cholangitis, primary sclerotic cholangitis, drug-induced cholestasis, extrahepatic cholestasis) Hyperparathyroidism Hypothyroidism Malabsorption
4. Inflammatory causes: The diseases that cause inflammation can also cause dry skin. They include chronic inflammatory bowel disease (gluten sensitivity) and rheumatic disease.
5. Infections: Some infections can also make the skin dry. It includes diarrheal diseases, helminths, Hepatitis B and C infections, and HIV infection.
6. Hormonal changes: The hormonal changes in the conditions such as menopause, andropause, and pregnancy causes the skin to lose its elasticity and mositure leading to dry skin.
7. Other medical conditions: Conditions such as polycythemia vera, essential thrombocytosis, Hodgkin’s disease, non-Hodgkin’s lymphoma, and multiple myeloma can also be a cause of dry skin. Did you know? Diabetes can cause several skin complications including dry skin , multiple spots around an area, extremely dry skin, red or yellow patches, skin hardening, groups of blisters or boils, open wounds, an outbreak of reddish bumps, scaly patches around eyelids or ash-like skin. Know more about the possible causes and ways to manage it. Read To Know! Diagnosis Of Dry Skin
8. Physical examination and medical history Dry skin is usually diagnosed through visually examining the skin. The doctor will gather complete information about your medical history. The doctor also discusses medications you are taking, your bathing habits, occupation, family history etc. This will help the health care provider in guiding the treatment plan.
9. Blood tests Based on the medical information, some tests such as thyroid test, blood glucose tests can also be suggested to find the exact cause.
10. Biopsy In severe cases, skin biopsy is also used to confirm the diagnosis and decide the treatment. It also helps in distinguishing the similar appearing conditions. In this, a piece of skin tissue is removed and examined under the microscope. It can be of following types: Shave biopsy: This technique uses a thin slice removed from the top of the skin. Punch biopsy: It is generally used to diagnose rashes and uses a small cylindrical piece of tissue from the affected skin. Excisions: It uses larger and deeper tissues for examination. It is mostly utilized for detecting skin cancers. Did you know? There are various types of skin specialists. But, people often use skin specialists and dermatologists interchangeably. But in reality, there is much more to skin specialists than just being a dermatologist. Confused? Well, you do not have to be because we are here to shed light on this. Click To Know! Specialist To Visit

In most of the cases, dry skin resolves with lifestyle modifications and home remedies. Consult your healthcare provider if: Dry skin persists even after OTC medications and self-care tips Skin becomes inflamed or painful Dry skin develops as a result of side effects of cancer treatment You are unable to do your regular activities as a result of itching You have open sores

The specialist doctors that can help in this condition include: Dermatologist General physician

Consult India’s best doctors online from the comfort of your home. Consult Now!

Prevention Of Dry Skin

The following measures can prevent the skin from drying. Skin cleansing and moisturizing Cleansing of skin followed by moisturizing plays a very important role in maintaining the skin texture and its overall health. The following measures should be taken care of to prevent dry skin: Use lukewarm water for bathing instead of warm/hot water Take full-body bath for a maximum of 5 min only Avoid bubble bath Use mild, non-alkaline soap, lipid-replenishing syndets/shower and bath oils Use soaps that contain humectants Avoid friction caused by rubbing with sponges Use gentle and fragrance free skin care products for face Avoid cleaning your face more than twice daily Apply moisturizer regularly after bathing and washing hands Avoid skin contact with alcohol containing lotions, perfumes, and other products Wear proper clothing Clothes also affect the skin conditions as the skin is in direct contact with the clothes. For keeping the skin healthy, avoid potential triggers that can lead to itching and dryness of skin. Prefer cotton clothes over synthetic fabrics Avoid wool based clothing, if possible Avoid tight clothes Use gloves for hands and feets  
Eat wisely The type of food we eat plays a very important role in keeping the skin healthy. A balanced diet that includes sufficient fruits and vegetables nourishes the skin and keeps it moist and healthy. Citrus fruits, very hot and spicy food, excessive hot drinks and alcohol should be avoided as they can dehydrate the skin. Lifestyle modifications Stress, anxiety, and lack of water can also modulate the skin conditions and make it more prone to acne and dry skin. The basic lifestyle changes can help prevent dry skin. Consume sufficient amount of water Take proper rest Do regular moderate exercise Avoid excessive smoking and alcohol consumption Avoid direct exposure to sun especially during afternoons Use sunscreens which give appropriate protection

Watch the video by our expert to know about the right sunscreen. Treatment Of Dry Skin

The treatment of dry skin focuses on the following motives: Repair the natural lipid barrier of the skin Supply water in the uppermost layer of the skin Increase the water holding holding capacity of the skin Reduce itching Repair stratum corneum (uppermost layer of the skin)

Most cases of dry skin can be managed by topical applications that are used directly on skin. Various types of topical preparations are as follows:

Humectants: They promote water transfer from dermis to epidermis. Examples include glycerin, urea, ammonium lactate, hyaluronic acid, and gelatin. Silicone preparations are also available as humectants. They are not greasy and have good tolerance. Occlusives: These are the preparations that prevent water loss from the skin by creating a hydrophobic layer over it. The common examples include lanolin, paraffin, petroleum jelly, cholesterol, and stearyl alcohol. Emollients: These agents fill gaps and fissures in the skin. Dimethicone and propylene glycol are common examples. Relipidating agents: The topical formulations also contain relipidating ingredients that ensures the availability of lipid in the uppermost layer of the skin. The common examples are cholesterol and fatty acids such as evening primrose, shea, jojoba, borage, olive, wheat germ, and sunflower. Other ingredients: The preparations also contain several other ingredients that serve different purposes. Oats: It is rich in water, proteins, lipids, mineral salts, and vitamins. It keeps the skin hydrated and also prevents deprivation of essential vitamins and minerals. It is also used to increase the compatibility between the components in the preparation.  
Allantoin: It possesses hydrating properties which keeps the skin moist. A-bisabolol: It has anti-inflammatory and bactericidal properties. It helps in repairing the damaged skin and also prevents bacterial skin infections.

Know how to buy the right moisturizer and the correct method of application. Tap To Know!

Topical steroids: Topical steroids and calcineurin inhibitors are also prescribed in case of itching and dermatitis. These reduce the inflammation and irritation. They are available in different forms such as: Creams Gels Lotions Ointments Taps and bandages Solutions

The common examples include: Clobetasone Hydrocortisone Beclomethasone Betamethasone Clobetasol Fluticasone Mometasone

In severe cases, oral or injectable medications are also given. Home-care For Dry Skin

Eat a healthy diet

Foods to include The type of food we eat plays a very important role in keeping the skin healthy. Dry skin can also be a sign of deficiency of certain nutrients such as Vitamin A, Vitamin C, Vitamin D, zinc, and selenium. Hence, it is advised to take a nutrient rich diet to keep the skin moist and healthy. This should include sweet potato, kiwi, cod liver oil, almond oat milk, baked beans, avocado, and green tea.

Foods to avoid Certain food items can hamper the skin care treatment by dehydrating the skin. Excessive consumption of coffee, sugar, salty foods, and refined carbs should be avoided as it restricts the blood flow to the skin or extracts water from it. Manage stress Stress can also promote skin breakouts and acne which can also result in dry skin. The following measures can be taken to manage the stress effectively. Get enough sleep Do things you enjoy such as painting, playing, singing, crafting etc Go for a walk Perform yoga Shave carefully It is advisable to apply moisturizer gel or cream before shaving. To have a soft and smooth skin, use a clean, sharp razor and shave in the direction the hair grows, not against it. Say no to smoking Smoking can damage the skin through restricting the blood supply. Excessive smoking destroys collagen and elastin that gives the skin strength and elasticity. Thus, it is important to quit smoking to keep the skin healthy.

Read about the various practical ways to quit smoking. Click To Read! Complications Of Dry Skin

Dry skin can be mostly treated with self care and medications. However, if left untreated or ignored, it can lead to the following complications: Infections If dry skin persists for a long period of time, it creates cracks in the skin. The damaged skin is more prone to the exposure of various microbes such as fungi and bacteria. It can eventually lead to several infections. Permanent changes to the skin Dry skin causes itching and frequent scratching can transform the skin permanently. It can cause changes such as thickened patches on the skin and discolouration of the skin. Allergic contact dermatitis Dry skin can also lead to allergic contact dermatitis due to compromised skin barrier. Atopic eczema (atopic dermatitis) The excessively dry skin can lead to atopic eczema. It is an inflammatory condition that is characterized by a rash along with itching and dry skin. Eczema craquele Also known as asteatotic eczema. The disease gets its name due to the cracked skin which is the characteristic of this condition. It is most commonly seen in old people. People having dry skin with other systemic diseases such as hypothyroidism, zinc deficiency, and lymphoma have the high chances of developing it. Nummular dermatitis/discoid eczema The disease is characterized by scattered, well-defined, coin-shaped and coin-sized plaques. It is mostly seen in people who wash their hands excessively. Pruritus/Itching Dry skin can also lead to consistent itching which can cause discomfort and frustration. In severe cases, it can also lead to anxiety and depression as it hampers daily chores and activity. Overheating Prolonged dryness impairs the skin barrier and can lead to overheating in the body. It is most commonly seen in some forms of ichthyosis. Alternative Therapies Of Dry Skin

Home remedies

Sunflower seed oil: Studies have shown that sunflower seed oil acts as a moisturizer when applied on the skin.

Coconut oil (Nariyal tel): It is a natural oil that is also widely used to moist dry skin. It acts as an emollient due to the presence of saturated fatty acids in it. Some studies suggest that its safety and efficacy is similar to that of petroleum jelly. It improves skin hydration and increases natural lipids in the skin. It can also be safely applied to the sensitive parts of the body such as under the eyes and around the mouth.

Oatmeal bath: Oatmeal has antioxidant and antiinflammatory properties which helps to relieve symptoms of dry skin such as redness and itching. The powdered oatmeal added to the bath helps to reduce dry skin. It is also available in the form of creams.

Milk: Milk contains fat that improves skin barrier. A diet including milk could improve dry skin. However more research is needed to confirm this.

Honey: It also possesses moisturizing, healing and anti-inflammatory properties. It can be applied directly on the skin.

Petroleum jelly: It is also known as mineral oil and has been known from years for its moisturizing properties. Studies have found that it improves skin barrier in older people. This study supports the use of mineral oil in dry skin.

Aloe vera gel: It also provides relief from dry skin. It can be applied directly over the affected area before going to bed at night.

Antioxidants: Dry skin causes cracking and flaking of the skin which exposes it to certain toxic elements of the atmosphere. Diet rich in antioxidants makes the skin healthier. Some of the common foods that can improve skin health include: Tomatoes Carrots Beans Peas Lentils Berries Living With Dry Skin

Dry skin can be acute or chronic. Many people might experience it throughout their lives. Most cases can be managed with gentle cleansing and adequate moisturization. Recognizing and avoiding triggers, including harsh soaps/detergents, extreme climate, rough/tight clothing, excess alcohol, spicy foods, citrus fruits, and stress also helps in relieving symptoms and prevents complications. The following measures that can be included in the lifestyle to reduce the symptoms of dry skin: Consult dermatologist Sometimes, dry skin can be a result of an underlying disease. It is very important to consult a dermatologist for the right diagnosis. It also helps the doctor in making the right treatment plan that suits your skin.  
Frequent moisturization Moisturization plays a very integral role in healing the skin damaged by dry skin. Make sure to apply the moisturizer after taking a bath, washing hands and whenever you feel the skin has become dry. Moisturizer should be gently massaged into the skin. You can also discuss with your doctor about the dose and method of application.  
Use of mild cleansers Cleansers play a key role in changing the skin texture. Soaps and detergents should be wisely chosen. Syndet cleansers are shown to reduce itching as they are less irritating than traditional soaps. The people having dry skin should avoid traditional soaps as they can worsen the skin conditions. Medicated soaps prescribed by the doctor should be used in case of severely damaged skin. Use humidifier Dry skin causes the skin to lose its moisture, especially in the cold atmosphere. The humidity level can be artificially increased with the help of humidifiers. Portable humidifiers are also available that can be placed near you while you sleep. Wear gloves The over exposure of the skin to the water removes the natural oil from the skin and makes it dry. It also reduces the effect of moisturizer. It is wise to wear gloves while doing activities such as washing dishes, gardening, cooking etc.

Wearing gloves in the winter also keeps the skin warm and prevents the skin from drying.

Explore some interesting and simple skin care tips for dry skin in winter. Click To Read!

Use sunscreens Sun emits UV rays which can worsen the damaged skin affected by dry skin. Clothing such as long sleeves, pants and hats also reduces the exposure of the skin from the sunrays. Always apply sunscreens that offer wide spectrum protection. Sunscreen with SPF 30 or higher provides good protection to the skin.  
Wear proper clothing Loose and cotton clothes over synthetic and tight ones should be used as it relieves irritation. Tight and synthetic clothing rub against the skin that makes the skin more cracked and inflamed. Do not self medicate The application of several drugs such as anti-acne medications can cause dry skin. It is always advisable to consult your dermatologist before applying medicated cream over the skin. Frequently Asked Questions What deficiencies can cause dry skin? What is the role of sunscreen in keeping the skin moist? Which foods help to treat dry skin? What is the difference between xeroderma (dry skin) and xeroderma pigmentosum? Which type of food can cause dry skin? References Dry skin, Signs and Symptoms, American Academy of Dermatology Association. Gade A, Matin T, Rubenstein R. Xeroderma. InStatPearls [Internet] 2021 Apr 15. StatPearls Publishing. Dry Skin: Tips for Managing, American Academy of Dermatology Association. Augustin M, Wilsmann‐Theis D, Körber A, Kerscher M, Itschert G, Dippel M, Staubach P. Diagnosis and treatment of xerosis cutis–a position paper. JDDG: Journal der Deutschen Dermatologischen Gesellschaft. 2019 Nov;17:3-3. Barco D, Giménez-Arnau A. Xerosis: a dysfunction of the epidermal barrier. Actas Dermo-Sifiliográficas (English Edition). 2008 Jan 1;99(9):671-82.

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Dysentery Also known as Bloody Diarrhea, Shigellosis Overview Dysentery is a painful intestinal infection that causes loose and watery stools along with blood and mucus. It is a highly infectious disease that is caused by bacteria or parasites. Poor sanitation, poor hand hygiene, consuming food and water contaminated with fecal matter and various other factors increase the chances of contracting the disease.

WHO report states that 165 million episodes of dysentery are estimated to occur each year, with a higher prevalence in tropical or developing countries, especially among children. Dysentery is also a common factor of mortality in children below 5 years, but it can affect people of all ages.

Antibiotics and antiparasitics along with supportive care with fluids and electrolytes are used to treat dysentery. The infection is highly contagious and can easily spread from the infected person to others. Hence it is very essential to follow good hygiene measures to control its spread. Key Facts Usually seen in All age groups Gender affected Both men and women Body part(s) involved Large intestine Small intestine Rectum Stomach Prevalence Worldwide: 165 million episodes (2016) Mimicking Conditions Diarrhea Cholera Ulcerative colitis Irritable bowel syndrome Hepatitis Necessary health tests/imaging Stool examination R/M Culture stool Complete blood count (CBC) Treatment Antibiotics and antiparasitics: Ciprofloxacin, Azithromycin & Norfloxacin-Tinidazole Antipyretics: Paracetamol  
Electrolyte supplements: Oral rehydration salts (ORS)  
Anti-diarrhea drugs: Loperamide See All Symptoms Of Dysentery

The symptoms of dysentery may take up to 3 days to manifest once the person contracts the infection. A person suffering from a bout of dysentery will generally experience the following symptoms: Loose, watery stools Frequent bouts of defecation Stools with blood and mucus Pain while passing stools Cramping and painful sensation in the stomach Bouts of nausea and vomiting Fever and chills Weakness Dehydration Decreased urine output Dry skin and mucous membranes (such as dry mouth) Muscle cramps Weight loss Causes Of Dysentery

Dysentery is a highly infectious disease that spreads via human-to-human transmission and most commonly via the hand-to-mouth route. It is usually caused by drinking water or eating food from sources contaminated with the organisms that cause the dysentery. Types Of Dysentery

There are two types of dysentery based on the organism that causes it:

1. Bacillary dysentery Bacillary dysentery, as the name suggests, is caused by a bacterias.These bacterias include shigella (causes shigellosis), campylobacter (causes campylobacteriosis) and salmonella (causes salmonellosis). The frequency of each bacteria causing dysentery varies from region to region in the world.
2. Amoebic dysentery Amoebic dysentery, as the name suggests is caused by an amoeba (single-celled parasite) known as Entamoeba histolytica. Risk Factors For Dysentery

Patients having dysentery have germs in their stools while they have diarrhea and for up to a week or two after the diarrhea has gone away. Dysentery is very contagious as just a small amount of germs can make someone contract the disease. People can get infected by: Catching germs on their hands and then touching their food or mouth. This can happen by touching surfaces contaminated with germs from stool from a sick person, such as taps, toilet seats, flush handles etc or while changing the diaper of a sick child or taking care of a patient. Eating foods that are raw, uncooked or prepared by someone who is sick with dysentery. Fruits and vegetables can also get contaminated if they are washed with dirty water or grown in soil polluted by human excreta. Drinking water that is contaminated with stool containing the germs. There is a high risk if the water for household use isn’t properly separated from waste water. Swallowing infected water while swimming in a river, lake or public swimming pool. Any sexual activity that involves direct anal-oral contact with an infected or recently recovered patient.

When you are sick with diarrhea you lose fluids and salts from the body at a fast pace, so it is important to take as much fluids as possible. Click To Know The Tips! Diagnosis Of Dysentery

Often, dysentery can be confused with other conditions affecting the gastrointestinal tract. This is because there is considerable overlap in the presenting symptoms of dysentery with other diseases of the stomach and intestine.

Diagnostic lab tests: A diagnosis of dysentery is confirmed by detecting the presence of causative organisms, such as shigella or Entamoeba histolytica. stool examination R/M and culture stool are lab tests that detect the presence of microorganisms in a stool sample and determine their sensitivity to antibiotics.

Supportive lab tests: Additional lab tests, such as complete blood count (CBC), may be performed to determine the level of infection in the body and rule out other causes that may cause similar symptoms. Celebs affected King Henry V King Henry V of England passed away at the tender age of 36 years due to complications of dysentery Prevention Of Dysentery

Dysentery can be prevented by following good hygiene practices, such as: Always wash hands with soap and water before eating meals and after visiting the toilet. Avoid roadside, uncooked, unhygienic food. Thoroughly wash vegetables before cooking. Do not eat raw food. When eating fruits or vegetables, always remove and discard their outer peel. Drink only purified or mineral water. Avoid ice if you are not sure it is made from clean water. Do not use unhygienic toilets. Avoid sharing towels and other personal care items. Specialist To Visit

If you have symptoms of dysentery, you must seek medical intervention to prevent serious health complications. Sick children may need treatment under a pediatrician. Adult patients may need to seek medical care from: General physician Gastroenterologist Consult India’s best doctors here from the comfort of your home. Book Appointment!

Treatment Of Dysentery

The treatment for dysentery aims to provide supportive care and to destroy the causative organisms.

1. Antibiotics and antiparasitics Depending upon the cause of dysentery, your doctor might recommend antibiotics or antiparasitics to treat the infection. Antibiotics are used in the treatment of bacterial dysentery or shigellosis whereas antiparasitic medications are used in the treatment of amoebic dysentery. Examples of antibiotics & antiparasitics include: Ciprofloxacin Azithromycin Norfloxacin-Tinidazole Ofloxacin-Ornidazole Trimethoprim-sulfamethoxazole Metronidazole
2. Supportive care Antipyretics such as paracetamol are used to treat fever occurring with dysentery. Electrolyte supplements such as oral rehydration salts(ORS) are useful in the prevention and treatment of dehydration. Anti-diarrhea drugs such as loperamide must not be used without a doctor’s recommendation as such medicines may worsen dysentery. Home-care For Dysentery

Patients with dysentery must consume only light foods which are easy to digest and avoid oily or spicy foods. Raw fruits and vegetables must be thoroughly washed before consumption. Liquid foods, such as coconut water, buttermilk, etc., must be consumed in plenty to prevent dehydration. If you are suffering from an episode of dysentery, you can do the following things to care for yourself at home: Drink purified water only. Keep yourself hydrated; drink plenty of water or electrolyte solutions. Take an ample amount of rest. When you start feeling better, eat light foods that are easy to digest. Wash your hands thoroughly with soap and water before every meal and every time you visit the toilet. During the episode of diarrhea, you should be cautious about what to have and what not to have. This is because while some foods are likely to be beneficial for you, certain foods may worsen your symptoms. Click Here To Know More!

Complications Of Dysentery

Severe dysentery can cause the following complications: Extreme weakness and dehydration Hypovolemic shock can occur when the body has lost too much of its fluid volume. Hypovolemic shock can cause a person to lose consciousness and even become comatose. It can even cause death if not treated in time. Toxic megacolon is a serious and life-threatening condition in which the large intestine distends excessively. Secondary infections of the gastrointestinal tract Gastrointestinal bleeding may occur from any part of the stomach or intestine. Bleeding in the gastrointestinal tract causes stools to turn black. Severely low levels of potassium which can cause life-threatening changes in heartbeat Seizures Postinfectious arthritis in which the patient can develop joint pain, eye irritation, and painful urination Hemolytic uremic syndrome (HUS) is a type of kidney damage in which the causative bacteria make a toxin that destroys red blood cells In rare cases, amoebic dysentery can result in liver abscess ie.collection of pus in the liver or parasites spreading to the lungs or brain Sepsis or spread of infection more commonly in people with weak immune systems due to disease (like HIV) or medical treatment (like chemotherapy for cancer) Alternative Therapies For Dysentery

The role of alternative therapies in the treatment of dysentery is limited. Dysentery is known as ‘Pravahika’ in Ayurveda. They help by eliminating the causative organism, facilitating normal absorption of nutrients in the intestine, and also stimulating digestive enzymes to aid easy digestion. These medicines must be taken as prescribed by an Ayurvedic practitioner.

Ayurvedic medicines found to be useful in the treatment of dysentery are: Kutajghan Vati Bilvadi Churna with Takra Chitrakadi Gutika

Living With Dysentery

Dysentery can be serious and can lead to life-threatening complications if left untreated. Hence it is very important to seek medical help as soon as possible. An episode of dysentery may leave a person feeling very weak and tired. One should rest at home and consume plenty of fluids and electrolytes to prevent dehydration.

At the same time it is very important to protect your family from dysentery as it is very contagious and can easily spread from person to person. You can follow the given tips to prevent passing on the infection to others: Handwashing is of utmost importance to stop the spread of infection. Wash your hands thoroughly with soap and water after going to the toilet. Clean toilet seats, flush handles, taps and sinks with detergent and hot water after use, followed by a household disinfectant. Wash all dirty clothes, bedding and towels separately with hot water. Until you’ve been completely free from any symptoms for at least 48 hours you should take the following precautions - 1. If possible, stay isolated from your family 2. Stay away from work or school  
3. Do not prepare food for others 4. Do not go in a swimming pool 5. Avoid sexual contact

Dehydration caused by dysentery can be prevented and effectively treated by giving ORS. Here’s more on everything you need to know about ORS and its role in dehydration and diarrhea. Click Here To Read!

Frequently Asked Questions What is the difference between diarrhea and dysentery? What foods should I avoid to prevent dysentery? I am travelling to a country with poor sanitation. What care should I take? When to seek medical care for dysentery? If I have dysentery, will I pass it on to my family? References Zulfiqar H, Mathew G, Horrall S. Amebiasis. StatPearls. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Shigellosis. Centres for Disease Prevention and Control. Amebiasis. Centres for Disease Prevention and Control. Dans LF, Martínez EG. Amoebic dysentery. BMJ Clin Evid. 2007 Jan 1;2007:0918. Shigellosis. World Health Organisation Guidelines. Taneja N, Mewara A. Shigellosis: Epidemiology in India. Indian J Med Res. 2016 May;143(5):565-76. Rotwar, \*Dara S., Dixit, A. K., Mangal, A., & Jadhav, A. D. (2017). Therapeutic management of Pravahika (amoebic dysentery) through ayurvedic regimen: a case study. International Journal of Ayurveda and Pharma Research, 5(2).

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Dehydration Overview Dehydration is simply a lack of water in the body. Our bodies are made up of roughly 60% water, which is required for almost every bodily function. Water can be lost from the body as a result of excessive sweating on a hot summer day or strenuous exercise. Even fever or excessive urination can cause a decrease in the body’s overall water level.

Dry mouth, excessive thirst, tiredness, dark-colored urine, and less frequent urination are all symptoms of dehydration. But if left unattended, it can cause headaches, bad breath, dry skin, and in rare cases, lead to a medical emergency.

So, if you experience dehydration, you can even try out some simple and effective home remedies to help restore mineral and fluid balance in the body. Medical attention is required in case of severe dehydration Key Facts Usually seen in All age groups Gender affected Both male and female Body part(s) involved Skin Lungs Kidneys GI tract Necessary health tests/imaging Physical examination Urinalysis Blood tests- Electrolyte profile, blood urea nitrogen/creatinine Treatment Electrolytes: Oral rehydration salts (ORS) IV fluids Medications: Acetaminophen, Antidiarrheal, and Antiemetic Specialists to consult General physician Pediatrician Gastroenterologist Symptoms Of Dehydration

Symptoms of dehydration in adults and children include:

Fatigue Thirst Dry skin and lips Dark urine or decreased urine output Headaches Muscle cramps Lightheadedness Dizziness Fainting or passing out Palpitations A sudden drop in blood pressure when you suddenly stand from a seated or lying down position.

Signs of dehydration in infants may include:

Wrinkled skin Urinates only one to two times per day which means- less changing of diapers Being drowsy or irritable A sunken soft spot (fontanelle) on top of their head Sunken eyes Few or no tears when they cry Cool, discolored hands and feet Sleeping too much

Here are some of the common signs and symptoms of dehydration in adults explained in detail. Click to read

Causes Of Dehydration

The adult human body is composed of up to 60% water. To keep cells and tissues healthy, it must maintain a delicate balance of fluids and electrolytes (including sodium chloride, potassium, calcium, and sodium bicarbonate). Water is primarily absorbed through the digestive tract. The kidneys remove waste and excess fluid and excrete it as urine. Dehydration occurs when your body loses more fluid and electrolytes than it takes in, and you don’t have enough to function normally. A lack of fluid disrupts that balance and jeopardizes your body’s ability to regulate its temperature and function properly. The various causes of dehydration include: Prolonged physical activity with excessive sweating without consuming adequate water, especially in a hot and/or dry environment Prolonged exposure to dry air, e.g., in high-flying aeroplanes (5% to 12% relative humidity) Blood loss due to physical trauma High altitude Diarrhea Vomiting Long term fasting Recent rapid weight loss Inability to swallow Excessive use of caffeine and other stimulants Excessive consumption of alcoholic beverages Severe burns

Some infectious diseases that may cause dehydration include: Gastroenteritis Cholera Typhoid fever Yellow fever Malaria

Medical conditions that are usually associated with dehydration include: Diabetes mellitus Diabetes insipidus Addison disease Salt-wasting nephropathies Hypoaldosteronism Intestinal obstruction Acute pancreatitis Types of Dehydration

Dehydration is classified under three categories depending on

1. Hypotonic (deficiency of electrolytes especially sodium)
2. Hypertonic (primarily loss of water)
3. Isotonic (loss of both water and electrolytes in equal ratio) Risk Factors For Dehydration

Although dehydration can happen to anyone, some people are at a greater risk. Those at most risk include: Babies and infants - Babies have a low body weight and are sensitive to even minor fluid loss Older people - Older persons may be less aware that they are becoming dehydrated and they need to keep drinking water to avoid being dehydrated. People with long-term health conditions - Individuals who have a chronic illness, such as diabetes or alcoholism, may be at a higher risk of developing dehydration. Athletes - Athletes can lose a significant amount of bodily fluid through sweat when they work out for a long time. Diagnosis Of Dehydration

The doctor often diagnoses dehydration based on physical signs and symptoms. Physical examination- Absence of tears, sunken eyes, palpated pressure, dry mucous membrane, thirst, change in blood pressure, and so on are all part of the physical examination. However, to pinpoint the level of dehydration, the doctor may request a few tests, such as: Blood tests- Blood samples may be used to rule out the root cause of infection (either virus, bacteria, or fungal) such as the levels of your electrolytes, blood urea nitrogen/creatinine, etc. Urinalysis- Urine tests can determine whether or not you are dehydrated and to what extent. They can also look for signs of a bladder infection and crystal formations or kidney stones etc. Urine toxicology- Some medicines can lead to dehydration too like Marijuana. For example- methamphetamine is a drug that is used to diagnose urine toxicology.

Note: Babies and kids may not show the same signs of dehydration that adults do. If your baby or child is showing signs of dehydration, contact their doctor for advice. Celebs affected Dilip Kumar The late superstar actor Dilip Kumar, who worked in many Bollywood films, was hospitalized after he suffered from dehydration. Ileana D’Cruz Actor Ileana D’Cruz, had suffered from severe dehydration. She stated in a post that she was treated with three bags of IV fluids, which are specifically prepared liquids to treat dehydration. Prevention Of Dehydration

Here are some ways to keep dehydration at bay: Examine the inside of your mouth for signs of dehydration. A healthy mucus membrane should be red, moist, and have good turgor. You can check this by looking inside your mouth. Drink the recommended amount of fluids even if you are not physically active. Don’t put off drinking until you’re thirsty. Drink fluids throughout the day, whether you’re thirsty or not. If you plan to exercise or participate in sports, increase your water intake. Drink water or electrolytes after exercise as well. Have extra electrolytes on hand whenever you are ill, such as when you have a fever, vomiting, dysentery, or diarrhea, as this can result in fluids or electrolyte loss.

Here are a few tips to prevent dehydration from dysentery or diarrhea. Click here

In hot weather, dress coolly and avoid being out in direct sunlight if possible. Also, in hot weather, drink more water. Eat a balanced diet that includes fruits and vegetables. They are high in water, salt, and vitamins and can help prevent dehydration. Limit your intake of coffee, alcohol, and caffeinated beverages. They are diuretics, which means they remove water. Prevention tips for babies and children: Children also get dehydrated just like adults. If your child is very physically active or it’s a warm day, make sure your child consumes plenty of water or other fluids.

You can try a baby version of a sports drink, like Pedialyte or Equalyte. Buy Now

Specialist To Visit

You must seek medical attention right away if you, your child, or an adult exhibit severe dehydration symptoms, such as lethargy or diminished responsiveness, to avoid life-threatening health issues. Immediately call your doctor if you experience any of the following signs: Unusually fatigued (lethargic) or confused Failing to urinate for eight hours Fast heartbeat Standing up makes you feel dizzy, but it doesn’t go away after a short while.

You should also see a physician if your infant has had three or more recent episodes of vomiting or if they have had six or more episodes of diarrhea in the previous 24 hours. Children that are ill may require pediatrician supervision. The doctors you need to seek medical care from: General Physician Pediatrician (in case of infants) Gastroenterologist

Consult India’s best doctors here from the comfort of your home. Book an Appointment

Treatment Of Dehydration

The treatment of dehydration depends on age, the severity of dehydration, and its cause. You also may be treated for diarrhea, vomiting, or a high fever if the illness caused dehydration. For Babies: Feed your infant a lot of liquids, such as formula or breast milk. Prefer giving children smaller amounts of fluid more regularly. Don’t dilute your baby’s formula (if you use it). Extra water can be given to formula-fed and solid-fed babies. Avoid giving your baby fruit juice, particularly if they have diarrhea and vomiting, as it can aggravate their condition. In addition to their regular feed (breastmilk, formula milk, and water), giving your infant regular sips of oral rehydration solution (ORS) will help to replace lost fluids, salts, and sugars.

For Infants and Children: The most important treatment for young children suffering from vomiting or diarrhea is to keep them hydrated. This entails providing ample amounts of breast milk, formula, electrolyte solution, or other fluids. Infants and children who have become dehydrated due to diarrhea, vomiting, or fever should not be given only water. Because it can dilute the already low mineral levels in their body, exacerbating the problem. Instead, they should have diluted squash or oral rehydration salts (ORS).

Struggling with dehydration? Watch our expert doctor share the recipe for making ORS at home. Tap here

Take lesser quantities more regularly if you or your child is having trouble keeping fluids down due to vomiting. To give your child small amounts of fluid, you may find it easier to use a spoon or a syringe.

Mild dehydration: Dehydration causes the loss of sugar, salts, and water. It is frequently treated by drinking rehydration solutions that contain electrolytes and aid in the restoration of electrolytes such as sodium and potassium.

Here’s more on everything you need to know about ORS and its role in dehydration. Click here to read Severe dehydration: For moderate to severe dehydration, you may need IV (intravenous) fluids. Severe dehydration is a medical emergency. It needs to be treated right away with IV fluids in a hospital.

Note: Even if patients get intravenous (IV) rehydration, they should start drinking ORS as soon as they are able. In particular, babies, infants, and elderly people will need urgent treatment if they become dehydrated.

Feeling dehydrated? What to do if you feel dehydrated? Read here

Medications: Based on the cause of dehydration, you may be given medicines such as acetaminophen (to treat fever), and antidiarrheal medicines, antiemetic medicines (to treat vomiting), etc. Coconut water- Coconut water has adequate potassium and glucose content along with chloride and sodium, which make it a perfectly healthy drink for dehydration and diarrhea. Lemon water- Also known as nimbu paani, acts as one of the best home remedies for dehydration as it not only ups your water intake and helps you to stay hydrated but also prevents dehydration. The addition of salt and sugar to lemon water helps you to replenish the lost salts in the body along with increasing your vitamins and minerals level. Orange juice- It contains vitamin C, which flushes the toxins from the body and electrolytes such as sodium and potassium which help replenish the nutrient levels in the body. Yogurt- Add a pinch of salt to your yogurt and have it daily to prevent dehydration. Yogurt is rich in electrolytes and thus can help combat dehydration. Chamomile- It is not simply an analgesic and de-stressing herb, but also serves as a rehydrating agent. You can also drink it as a decaffeinated tea to replenish lost fluids and maintain your hydration. Home-care For Dehydration

A few measures and lifestyle changes can help in the prevention of dehydration: Drink as much water as possible each day (8–10 glasses of 8 ounces). Be hydrated, especially if you’re unwell. Increase your fluid consumption if it’s hot and humid outside, to replenish the water lost by sweating. Rest in cool places, and avoid exercising if you feel dehydrated. Avoid drinking coffee, soda, or any other beverage with a high sugar content if you are dehydrated and also have gastroenteritis or another illness. Both caffeine and soda may irritate the gastrointestinal tract. Consume bland foods during dehydrated conditions. Have sports drinks if you feel dehydrated after strenuous physical activity.

Along with these lifestyle changes, there are certain foods also that can help you deal with dehydration at home. They include: Bananas- Intake of bananas, which are high in water and potassium content, can not only help to replenish potassium levels in the body but also prevent dehydration. Buttermilk- Buttermilk is packed with nutrients like magnesium along with being loaded with high water content. It is not only easy on the stomach but acts as a natural probiotic that aids in dealing with diarrhea and indigestion, which could be the reason for dehydration Barley Water- Barley grains contain antioxidants, vitamins, and minerals such as potassium, magnesium, and phosphorus in good amounts which helps to restore minerals and water when taken in the form of barley water. Homemade ORS- You will need a half teaspoon of salt, 6 teaspoons of sugar and 4 cups of water. Mix all these ingredients until salt and sugar get dissolved completely. Drink the solution multiple times a day. You can consume 3 liters of this solution in a day.

Feeling lazy about homemade ORS? Here is our wide range of ORS powder! Tap here to buy online

Asparagus (shatavari)- Asparagus provides a wonderful source of water, fiber, and electrolytes, all of which can help prevent dehydration. It assists in replenishing the lost fluids due to dehydration and regulates the body’s fluid balance. It also acts as an antioxidant to help protect the body’s cells from damage caused by dehydration. Willow Bark- It has anti-inflammatory and pain-relieving properties. It might be useful in easing some of the signs of dehydration, like headaches and aches in the muscles. Ginger (Adrak)-It has anti-inflammatory and antioxidant properties. It may also help to relieve nausea, which can be a symptom of dehydration.

Want to know more about home remedies for dehydration? Click here to read

Complications Of Dehydration Left untreated, dehydration can lead to serious complications. These include Heat-related illnesses such as heat cramps, heat exhaustion, or heatstroke. Urinary and kidney problems such as kidney stones or kidney failure. Electrolyte imbalances (such as sodium and potassium)- that can lead to heart rhythm disturbances and seizures. Shock, coma, or death. Low blood volume shock (hypovolemic shock)- It occurs when low blood volume causes a drop in blood pressure and a drop in the amount of oxygen in your body. Altered mental status, confused thinking.

Can dehydration affect brain activity? As the brain is composed of about 75% water, dehydration can lead to a decrease in blood volume and blood pressure, reducing the flow of oxygen and nutrients to the brain. Studies have shown that even mild dehydration can lead to impaired cognitive performance such as attention, concentration, and memory.

Say bye-bye to dehydration! Check out our widest range of hydrating drinks, especially for summer. Buy now

Alternative Therapies For Dehydration 1. Acupuncture and acupressure Acupuncture and acupressure are two techniques commonly used to manage chronic vomiting. During acupuncture, a therapist inserts thin needles into specific points on the body. Acupressure aims to stimulate the same points of the body but uses pressure instead of needles to do so. Both techniques stimulate nerve fibers, which transmit signals to the brain and spinal cord and are believed to decrease nausea. 2. Aromatherapy therapy This type of therapy may help relieve nausea and vomiting, although studies on its effectiveness are mixed. To practice aromatherapy, try deep breathing with an open essential oil bottle, or an essential oil diffuser, or add a few drops to a cotton ball. If you have asthma or another respiratory condition, ask your doctor before diffusing essential oils.

Buy essential oil products online to get rid of the unwelcoming feeling of nausea and vomiting. Fill your cart now Frequently Asked Questions Does dehydration cause headaches too? What color is urine when dehydrated? How long does our body take to rehydrate? Why do infants and young children have a higher risk of dehydration? What are the most common illnesses that cause dehydration? References Dehydration symptoms and treatments [Internet]. Illnesses & conditions | NHS inform. [cited 2023Feb28]. Adult dehydration - statpearls - NCBI bookshelf [Internet]. [cited 2023Feb28]. Gotfried J. Overview of gastroenteritis - digestive disorders [Internet]. MSD Manual Consumer Version. MSD Manuals; 2023 [cited 2023Feb28]. Shigellosis - diarrhea, diarrhoea - dialogue on diarrhoea online - prevention, control, management and treatment of diarrhoeal diseases. [cited 2023Feb28]. NHS choices. NHS; [cited 2023Feb28]. Diagnostic strategy to diagnose dehydration in the nursing home [Internet]. [cited 2023Feb28]. Signs of dehydration in infants & children [Internet]. HealthyChildren.org. [cited 2023Feb28]. Treating dehydration with electrolyte solution [Internet]. HealthyChildren.org. [cited 2023Feb28]. Canavan A, Billy S. Arant J. Diagnosis and management of dehydration in children [Internet]. American Family Physician. 2009 [cited 2023Feb28]. Festa A. Dangers of dehydration [Internet]. Healthgrades. Healthgrades; 2021 [cited 2023Feb28]. Hydrate your brain and body using these 4 herbs - thehealthsite [Internet]. [cited 2023Feb28]. Anzilotti AW, editor. Dehydration (for parents) - nemours kidshealth [Internet]. KidsHealth. The Nemours Foundation; 2020 [cited 2023Feb28]. Rehydration therapy [Internet]. Centers for Disease Control and Prevention. Centers for Disease Control and Prevention; 2022 [cited 2023Feb28]. Staff FE, Rice A, familydoctor.org editorial staff AR. Dehydration [Internet]. familydoctor.org. 2020 [cited 2023Feb28]. The amazing and mighty ginger - herbal medicine - NCBI bookshelf [Internet]. [cited 2023Feb28]. Zhang N, Du SM, Zhang JF, Ma GS. Effects of dehydration and rehydration on cognitive performance and mood among male college students in Cangzhou, China: A self-controlled trial [Internet]. International journal of environmental research and public health. U.S. National Library of Medicine; 2019 [cited 2023Mar1].

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Dementia Also known as Memory Loss and Forgetfulness Overview Dementia is a progressive, chronic brain condition that leads to loss of memory, ability to think, and behavioral disturbances. In severe cases, it can also impact the ability to perform simple day-to-day activities.

Worldwide, around 50 million people have dementia, and this number is expected to hit 152 million by 2050. Although there are many types of dementia, Alzheimer’s disease associated dementia is the most common and accounts for 60-70% of all cases.

There are numerous factors that can be behind dementia. These include but are not limited to poor blood supply, abnormal protein accumulation and degenerative changes in the brain. The condition may start with something as simple as not being able to remember important dates or events and may increase in severity where a person may forget to wear clothes or eat food on time.

Being diagnosed with dementia can be a life-altering and challenging situation for the patient and his/her caregivers. Dementia is a progressive condition and can worsen with time. The treatments currently available are known to slow the progression of the disease, but cannot entirely stop it. Key Facts Usually seen in Adults above 65 years of age Gender affected Both men and women but more common in women Body part(s) involved Brain Prevalence Worldwide: 50 Million (2020) India: 4.1 million (2019) Mimicking Conditions Depression Delirium Mild cognitive impairments Stress Senility Nutritional deficiency Necessary health tests/imaging Thyroid profile total Vitamin B-12 Vitamin D (25-OH) Complete blood count (CBC) Erythrocyte sedimentation rate Protein electrophoresis CSF CT scan (Head) MRI brain MR angiography brain CT angiography brain Electro-Encephalograph (EEG) Electrocardiography (ECG) Echocardiography Treatment Acetylcholinesterase inhibitors: Donepezil, Galantamine & Rivastigmine Nerve-protecting medicine: Citicoline N-methyl-D-aspartate (NMDA) agonists: Memantine Antioxidant drugs: Ginkgo biloba & Coenzyme Q10 Nootropic drugs: Piracetam Statins Ibuprofen See All Symptoms Of Dementia

A person can be suspected to have dementia if he/she exhibits the following symptoms: A progressive loss of memory, which may start as simple forgetfulness and gradually increase to an extent where the person cannot recollect vital information, such as his/her name, address, etc. Problems in performing basic tasks, such as grooming, wearing clothes, eating, etc., that he/she could complete with ease previously. Difficulty establishing new memories and learning new things. Loss of ability to communicate effectively. The patient may struggle to remember even simple words. The patient is often confused and disoriented. Other psychological symptoms, such as anxiety, depression, inappropriate behavior, paranoia, and hallucinations, may also be present. Causes Of Dementia

There are many causes of dementia and result in various neurological disorders like:

Dementia of Alzheimer’s disease This is the most common type of dementia and accounts for 70-80% of all cases of dementia. Patients with Alzheimer’s disease have abnormalities in their brain, like deposition of beta-amyloid proteins or plaques and tangles in the brain which damage healthy neurons and are thought to cause the symptoms. Another feature is the loss of connection between neurons in the brain which transmit messages between different parts of the brain, and from the brain to muscles and organs in the body.

Fronto-temporal dementia Degeneration of nerve cells in the brain’s frontal and temporal lobes leads to this type of dementia with associated personality changes, mood alterations, and abnormal behavior.

Vascular dementia When the blood supply to the brain is hampered by a stroke, injury, or abnormal blood pressure, it damages the neurons and leads to memory problems, resulting in cognitive decline.

Lewy-body dementia Lewy bodies are abnormal clumps of protein found in the brain in neurological diseases like Alzheimer’s disease or Parkinson’s disease. This type of dementia is associated with stiffness and rigidity in the body and slow, uncoordinated movements.

Other brain disorders Certain neurological conditions, such as traumatic brain injury, Huntington’s disease, Creutzfeldt-Jakob disease, etc., may also cause symptoms of dementia like memory loss, speech difficulties, etc.

Mixed dementia This is a type of dementia that occurs due to an overlap of different causes.

Progressive dementia All types of dementia described above are progressive types that often begin with mild symptoms. There is no possibility of a complete cure for such types of dementia.

Reversible type dementia These types of dementia can be improved if the underlying causative factor is taken care of. These dementias can be due to nutritional deficiencies, infections, medications effect, hormonal imbalances, brain tumors, hydrocephalus, excess fluid buildup in the brain, poisoning, etc. Correcting these causative agents usually helps improve the symptoms. Risk Factors For Dementia

Certain factors are known to increase the risk of dementia, such as:

Age: The risk of dementia increases with increasing age, especially after 65 years. However, it is not a part of the normal aging process, which is a common misconception.

Family history: Chances of dementia are higher if a close family member suffers from dementia due to the same genetic sequencing.

Chronic illness or diseases: Comorbid conditions like diabetes, hypertension, etc., increase the risk of dementia.

Nutritional deficiencies: A diet deficient in vitamin B complex can increase the risk of dementia.

Alcohol abuse: Excessive alcohol consumption can increase the risk of dementia.

Medications: Certain antidepressant medications like amitriptyline, anti-allergy medications like diphenhydramine,benzodiazepines, anticholinergics, opioids may increase the risk of dementia. Did you know? Risk factors of heart disease can put you at risk of Alzheimer’s. These include sedentary lifestyle, obesity, smoking, high blood pressure, high blood cholesterol, and uncontrolled type 2 diabetes. Scientists believe that for most people, Alzheimer’s disease is caused by a combination of genetic, lifestyle and environmental factors that affect the brain over time. Consult Now! Diagnosis Of Dementia

To evaluate a person with memory loss, the doctor takes a detailed history about the onset of symptoms, notes family history, and evaluates the patient’s neurological and psychological condition with physical and cognitive assessments. Certain supporting lab tests and imaging studies may be required to establish the cause of dementia.

Lab Tests: Laboratory tests to evaluate dementia include Thyroid profile total, Vitamin B-12, Vitamin D (25-OH), Complete blood count (CBC), Erythrocyte sedimentation rate, Protein electrophoresis CSF, etc. check for infectious conditions, autoimmune conditions, or nutritional deficiencies as these are other potential causes of dementia. Depending on the test results, further more detailed tests may be recommended to confirm the findings.

Imaging Studies: CT scan (Head), MRI brain, MR angiography brain, CT angiography brain are useful to study the structural changes to the brain and surrounding vasculature in-depth.

Others: EEG (Electro-Encephalograph), Electrocardiography (ECG), and Echocardiography may be required to evaluate brain and heart activity.

With timely preventive health check-ups, one can spot and address risk factors for certain diseases that might crop up with old age. Read more on the need for preventive health check ups for the elderly. Read Now!

Celebs affected Ronald Reagan Ronald Reagan served as the 40th president of the United States from 1981 to 1989. He had Alzheimer’s dementia. Margaret Thatcher Former British Prime Minister, also known as ‘The Iron Lady’ Margaret Thatcher battled with dementia in the later years of her life. Treatment Of Dementia

The treatment for dementia mainly consists of supportive care and treating the causative factors wherever possible. Medical management consists of the following:

Medicines to Improve Cognitive Functions The common types of medications prescribed to patients with dementia to improve their cognitive symptoms. Acetylcholinesterase inhibitors: These drugs prevent the breakdown of acetylcholinesterase enzymes which helps in taking care of the symptoms but do not have any effect on the progression of the disease. Examples of drugs in this class are Donepezil, Galantamine, and Rivastigmine. Nerve-protecting medicine: This class of drugs nourishes the nerve cells, protects them from damage, and improves their survival. Examples include Citicoline. N-methyl-D-aspartate (NMDA) agonists: These are drugs that decrease the activity of glutamate, thereby controlling the symptoms. The formulations that belong to this class are Memantine. Antioxidant drugs: These drugs help to improve the symptoms of dementia by fighting the free radicals that could be responsible for symptoms such as decline in memory. The class of drugs which are popular include Coenzyme Q10, Ginkgo biloba, Saint John’s Wort, etc Nootropic drugs: These drugs which include piracetam target α-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA ) receptors, that play a key role in the transmission of signals across synapses in the brain. By stimulating or suppressing certain signal transmissions in the brain, piracetam may help to decrease cognitive impairment and improve mental acuity. Ibuprofen: It is a cyclooxygenase (COX) inhibitor designed to relieve pain, decrease inflammation, and reduce fever. It decreases the production of nitric oxide (NO), protects neurons against glutamate toxicity, and decreases the production of proinflammatory cytokines thereby controlling the symptoms of dementia. Statins: This class of drugs are known to help in the treatment of certain types of dementia caused by small blockages in blood vessels that carry blood to the brain. Statins may help to reduce these blockages and improve the symptoms.

Medicines to Calm Anxiety and Improve Sleep Often, patients with dementia also suffer from anxiety, irritability, depression, and sleep disturbances. Anti-anxiety or antidepressant medications that help calm these symptoms are prescribed.

Other Medicines for Reversible Causes of Dementia Supplements: Sometimes dementia is caused by nutritional deficiencies. Correcting these with vitamin supplements such as Polybion SF Syrup and Meg-B12 Capsules can help reverse dementia. Antidiabetics & antihypertensives: Treating diabetes with oral hypoglycemic drugs or insulin and hypertension with antihypertensives is essential if dementia is found to be a complication of these comorbidities. Antibiotics & anti-inflammatory drugs: Any infection or inflammatory condition in the body must be treated with appropriate antibiotics and anti-inflammatory drugs if dementia results from an infection or inflammation in the body. Prevention Of Dementia

Certain types of dementia cannot be entirely prevented. Making healthy lifestyle choices can help prevent dementia that originates from a poor lifestyle. These lifestyle choices are: Consuming a balanced diet rich in vitamins and minerals. Regularly exercising for an active physical and social life. Brain-stimulating exercises, such as solving puzzles, reading, etc. Avoiding heavy smoking and excessive alcohol consumption. Taking proper treatment for comorbid conditions like diabetes, hypertension, thyroid issues, anxiety, etc. Establishing a sleep schedule for adequate, sound sleep. 1mg Protip : Add berries to your diet to improve brain function. Berries can lower the risk of brain damage and improve cognitive function. These fruits are rich in antioxidants called anthocyanosides that fight memory impairment. The next time you go shopping, fill your basket with berries such as blueberries, strawberries, gooseberries, mulberries and blackberries. Explore Products Now! Specialist To Visit

The symptoms of dementia are often observed by close family members or loved ones. When a person starts forgetting important or routine things often and displays changes in behavior, speech, and other cognitive abilities, it is essential to evaluate him/her for probable dementia. The specialists who can diagnose and treat dementia are: Neurologist Neuro-psychologist Psychiatrist Consult India’s best doctors online. Book an appointment now! Book Now!

Alternatives Therapies Of Dementia

Exercise and Yoga: Performing light exercises can help enhance mood, manage anxiety in patients with dementia, and maintain their physical activity status. These light exercises can include home-based aerobic routine, dancing as a form of exercise, lifting light weights, and yoga such as Pranayama.

Physiotherapy and Occupational Therapy: Certain modifications suggested by physiotherapists or occupational therapists may need to be implemented in a patient’s home or work environment to make it safer and prevent injuries due to falls.

Massage Therapy and Aromatherapy: Massage therapy and aromatherapy induce relaxation and may be helpful for patients with dementia. Ayurveda: Dementia is known as Smrutibuddhirhass in Ayurveda. Panchkarma and medicinal herbs like Shankhpushpi, Guduchi, Bhrahmi, Ashwagandha, Shatavari, etc., may be useful in treating dementia. Living with Dementia

Often, receiving a diagnosis of dementia can be a life-altering and challenging situation for patients and their caregivers. Coming to terms with the diagnosis can invoke feelings of anxiety, depression, anger, rage, guilt, etc. However, it is important to remember that a diagnosis of dementia does not necessarily mean the end of life. It is possible to live a happy life even after being diagnosed with dementia. Make sure that the person understands the diagnosis and its health implications. Motivate the patient to stay socially active, such as going to a movie or taking a walk in a park. Engage them in community activities like attending functions or help them join a support group. Encourage them to spend time with friends and family. Love, understanding, patience, and reassurance are cornerstones of living with a loved one who has dementia. Home Care For Dementia

It is important to ensure safety and quality of life for patients suffering from dementia. Caring for a relative or loved one who is suffering from dementia can be challenging and often tiresome. Here are a few things that can help with home care for dementia patients.

1. Encourage the person to maintain a diary or calendar to note down important things or days, which will help them remember.
2. Always keep the atmosphere at home pleasant, positive, and caring. Never make the patient feel that they are a burden.
3. Ensure that the patient has access to important data, such as identity documents, home address, important telephone numbers, etc., at all times. This can help in situations where the patient loses his/her way home or is unable to remember their identity or whereabouts.
4. People with dementia are often at an increased risk of falls due to concurrent motor issues. Hence, take care and ensure that their surroundings are well-lit, spacious, and free of obstacles.
5. Do not allow a patient with dementia to drive or operate heavy machinery.

Even though the disease mostly affects people in their old age, Alzheimer’s disease is not a part of the natural ageing process. Know about the 7 lifestyle changes to lower the risk of Alzheimer’s disease. Click Here To Know!

Complications Of Dementia

Dementia is a progressive condition that can worsen with time. The treatments currently available are known to slow the progression of the disease but cannot entirely stop it. Dementia can cause the following complications as it worsens gradually.

Safety issues: Patients with dementia are at an increased risk of injuries even while performing activities like walking, cooking, cleaning, etc.

Personal hygiene: In the later stages, patients with dementia struggle with basic human hygiene, such as brushing, bathing, grooming, and using the bathroom. Nutritional challenges: With advanced dementia, a person may forget to eat and may lose interest in eating. This can lead to a variety of malnutrition-related problems.

Aspiration or choking: Trouble swallowing food can lead to aspiration or choking and cause pneumonia in the lungs. Frequently Asked Questions Does dementia affect only the elderly? Are there any foods that can improve memory? Can dementia patients ever get their memory back? References Kumar A, Sidhu J, Goyal A, et al. Alzheimer Disease. [Updated 2020 Nov 18]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Arvanitakis, Z., Shah, R. C., & Bennett, D. A. (2019). Diagnosis and Management of Dementia: Review. JAMA, 322(16), 1589–1599. Emmady PD, Tadi P. Dementia.Treasure Island (FL): StatPearls Publishing; 2021 Jan. What is Dementia. Centers for Disease Control and Prevention. Dementia. World Health Organisation. Dementia. National Health Portal of India. Tiwari, R. S., & Tripathi, J. S. (2013). A critical appraisal of dementia with special reference to Smritibuddhihrass. Ayu, 34(3), 235–242. Subash S, Essa MM, Al-Adawi S, Memon MA, Manivasagam T, Akbar Neuroprotective effects of berry fruits on neurodegenerative diseases. Neural Regen Res. 2014 Aug 15;9(16):1557-66.

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Dengue Also known as Dengue Fever (DF), Breakbone Fever, Dengue Hemorrhagic Fever (DHF), Dengue Shock Syndrome (DSS) Overview Dengue is a mosquito-borne viral disease. It spreads from one person to the other only when an Aedes mosquito infected with the dengue virus bites a healthy person especially during day time. It does not spread by touch, cough or secretions. Dengue presents as high-grade fever, pain in the eyes, skin rash, headache, body aches, and pain in the joints. In severe cases, it can lead to difficulty in breathing, severe abdominal pain and bleeding. Most patients with dengue fever have mild illness and can be managed at home by maintaining fluid intake, monitoring symptoms and taking medicines. However, at times, it may cause a potentially serious complication, called severe dengue (hemorrhage and shock). The disease can be prevented by ensuring proper measures to prevent mosquito breeding and water stagnation. Also, use of mosquito nets and repellents can help you to prevent mosquito bites. People suffering from dengue fever should take adequate rest, eat a healthy diet, take plenty of fluids and monitor platelet count and blood pressure closely. Key Facts Usually seen in All age groups Gender affected Both men and women Body part(s) involved Liver Lungs Brain Spleen Prevalence Worldwide: 390 million (2019) India: 8·8–12·9 Million (2017) Mimicking Conditions Malaria Zika Chikungunya Influenza (flu) Measles Necessary health tests/imaging Dengue antigen test Dengue antibody IgM test Dengue antibody IgG test Dengue RNA PCR test Complete Blood Count Treatment Paracetamol Fluid replacement (hydration) Platelet transfusion See All Symptoms Of Dengue The symptoms of dengue can be confused with other common illnesess such as flu, malaria, and chikungunya. However, dengue should be suspected if you develop a sudden onset of high-grade fever (above 104 degree celcius) along with rash, nausea and body ache.

According to the WHO, dengue can be categorised into 3 phases: Febrile phase Critical phase Recovery phase 1. Febrile phase This phase usually lasts 2-7 days and is often accompanied by: Generalized body ache Eye pain (pain with eye movement) Muscle pain Joint pain Headache Loss of appetite Nausea Vomiting Facial flushing Skin rashes Respiratory symptoms (cough, sore throat, congestion, etc)

1. Critical phase The fever usually decreases around the 3rd to 7th day of illness. This marks the beginning of the critical phase. It is followed by extreme fatigue which can last for a few days to weeks. There could also be a rapid decrease in the platelet & leucocyte (white blood cell) count. In some cases, there can be severe organ impairment & internal bleeding.
2. Recovery phase Post critical phase, there is an improvement in the condition of the patient in the following 48-72 hours. In this phase, there is an improvement in the appetite and gastrointestinal symptoms. There might be a reappearance of skin rash in the recovery phase.

Note: In younger children, these symptoms are generally mild but older kids and adults may have moderate to severe symptoms depending on the intensity of the infection.

Signs of severe dengue As per the CDC, about 1 in 20 people who get sick with dengue may develop a severe form of dengue. After the first sign of dengue appears, it may take around 3-7 days for the disease to turn into a severe condition. This is the critical phase which can even lead to a drop in the temperature which is not a sign that a person is recovering but a sign that special care is needed.

The warning signs which indicate severe dengue are: Severe abdominal pain Rash all over the body Bleeding gums Blood in vomit Rapid heart rate Low blood pressure Difficulty in breathing Fatigue/ restlessness Severe bleeding In case you suffer from any of these symptoms, it is advised to immediately get admitted to a hospital and follow your doctor’s suggestions without fail.

Suspect that your fever is due to dengue? Get a dengue test from the comfort of your home. BOOK TEST HERE Causes Of Dengue

Dengue is a viral infection caused by the bite of a female Aedes Aegypti mosquito. The virus that causes dengue is known as dengue virus (DENV), which belongs to the family of Flaviviridae viruses. There are four different types of dengue virus namely DENV-1, DENV-2, DENV-3 and DENV-4.

When the mosquito infected with dengue virus bites a healthy person, the virus spreads into the bloodstream causing the infection. The mosquito that causes dengue can be identified by characteristic black and white markings over its body. It breeds in stagnant water and is mostly seen during early hours of the day. Infection with any one of the serotypes confers lifelong immunity from that particular strain. Risk Factors For Dengue

You may be at a high risk of suffering from dengue if: There are several cases of dengue in your locality. Your area has pooled water or if you work in construction sites as the risk of breeding mosquitoes is high in such areas. You travel to places where the prevalence of dengue is high. Diagnosis Of Dengue

If a person is down with high fever, nausea, rash, and bodyache, then it is wise to get a blood test done. In most cases, a complete blood count (including a platelet count) is recommended if your doctor suspects dengue. However, it is a nonspecific test because it doesn’t help to confirm the presence of the dengue virus or detect the type of virus. To detect the presence of the dengue virus in the blood, you need to undergo definitive tests which include:

1. Dengue antigen test Also known as dengue NS1 antigen test, this blood test helps to detect the dengue virus early in the course of an infection. It should be done within the first five days of the appearance of symptoms because after 5 to 7 days the chances of false positive and negative results are high. Book Test Here
2. Dengue antibody IgM test This test looks for IgM (antibodies) in the blood, which appear in the early course of the disease (acute infection). The test can also help to differentiate between primary (first time infection) and secondary (second time infection with the other serotypes) infection. Book Test Here
3. Dengue antibody IgG test The test is used to detect infection in the later course of the disease because the level of IgG in the blood tends to increase slowly. Usually, the level increases 6 to 10 days after the infection and the antibodies can remain in the blood for around 90 days or for the rest of your life. Book Test Here
4. Dengue RNA PCR test It is a primary test used to detect dengue virus in the early course of the infection. A positive result not only confirms the infection but also helps to identify the different serotypes of the dengue virus. The test is around 90% sensitive and 95% specific. Book Test Here

Celebs affected Here is a list of a few popular celebrities who presently have this condition or have suffered from it in the past. Lisa Haydon In 2014, numerous news releases stated that Lisa Haydon had to skip promotion of “The Shaukeens” movie after she was diagnosed with dengue. She later recovered completely. Ranveer Singh Ranveer Singh was hospitalized in 2013 after he suffered from a serious bout of dengue fever. However, he soon recovered and started shooting for his movie, as per the reports online. Prevention Of Dengue The best way to prevent dengue is to prevent mosquitoes in your immediate surroundings. To achieve this, you need to:

1. Prevent water stagnation Look around the house and get rid of any source of water stagnation since the mosquitoes breed in stagnating water. Drain your buckets of water after bathing or washing ensuring that mugs and buckets are dry. Fix any leaking taps in the bathroom and kitchen so that the area remains dry and water does not collect in containers. Drain the water from water coolers and keep it dry. Do not overwater potted plants to prevent water stagnation in the soil.
2. Use mosquito nets Use mosquito nets at night to prevent getting bitten by mosquitoes. You can use them during the day for babies and elderly who tend to take a nap in the afternoon. You should cover up and close any holes in the windows and doors from where mosquitoes might enter. Wire mesh screens can be used on windows to block out mosquitoes.
3. Apply mosquito repellents Use mosquito repellent cream especially for kids who go out to play. Mosquito repellent liquidators are also widely available in the market and used for driving out mosquitoes from the house. Apart from the mosquito repellents available in the markets, there are few natural ways to get rid of mosquitoes like burning camphor, lighting lavender candles, using citronella or eucalyptus essential oil and keeping a potted tulsi plant near the window.
4. Cover up Use full-sleeved clothes and full-length pants as much as possible so that most areas of your body are covered. In case you have kids, take special care to ensure their bodies are covered as much as possible. Mosquito Repellants: Use It Right Not sure if you are using your mosquito repellent the correct way? CHECK OUT HERE Specialist To Visit

A normal fever usually may cause throat pain, runny nose, weakness, mild body aches, and high body temperature. On the contrary, a dengue-infected person will show flu-like symptoms such as high-grade fever, severe bodyache along with rashes all over the body.

If you experience any signs and symptoms of dengue, it is important to consult your doctor at the earliest. Usually, your family doctor or general physician is the right doctor to go to. In some cases, you may also need to consult an internal medicine specialist.

Consult NOW

Treatment Of Dengue

There is no specific treatment for dengue. This is the reason why the treatment is aimed at relieving the symptoms. Most patients with dengue fever have mild illness and can be treated at home by following strict dietary guidelines and course of medication. In case of severe dengue, where the platelet count drops severely (a condition known as thrombocytopenia), platelet transfusion is advised.

1. Take sufficient rest As dengue causes severe fatigue and high fever, make sure you rest as much as possible and give your body sufficient time to recover.
2. Bring down your fever Antipyretic drugs like paracetamol can help to bring down the temperature and also relieve body aches. Drugs such as aspirin and other painkillers should be avoided as they may increase the risk of bleeding/hemorrhage. Antibiotics are generally not required. Sponging the person with cool water can help to reduce fever.
3. Stay hydrated Dehydration is a common complication of dengue as water is lost due to fever, vomiting and not drinking enough fluids. So to prevent it, make sure you stay hydrated by drinking fluids in the form of coconut water, buttermilk, fruit juices, lemon water, milk and drinks with electrolytes along with water.

If you experience any of these signs of severe dehydration, then it is wise to consult a doctor immeditely to prevent complications.

1. Monitor your condition The period after the fever starts to subside is critical. Some people develop warning signs such as vomiting (at least 3 times in 24 hours), difficulty in breathing, bleeding from the nose or gums and blood in vomit/stool within a day or two after the fever goes down. This is seen in around 1 in 20 people with dengue and may require hospitalization as it could be life-threatening. So be extra careful and keep a close eye on the warning signs.

REMEMBER! Severe dengue is a medical emergency and warrants immediate medical care at a hospital.

1. Try home remedies Few home remedies are found to be quite popular in the treatment of dengue fever as they have been known to increase the platelet count.

Papaya leaves: According to a research (Subenthiran S, et al), the juice of papaya leaves is known to inhibit the growth of dengue virus and increase platelet count.

Giloy: Packed with anti-inflammatory and antipyretic (fever reducer) properties, giloy juice is known to aid in the management of dengue fever. It not only increases platelet count but also improves immunity aiding in quick recovery.

Kiwi: Many people believe that eating kiwi fruit daily improves platelet count. However, there is no research study to prove its efficacy in increasing the platelet count. The fruit is rich in Vitamin C which not only acts as a potent antioxidant but also boosts immunity.

Watch this video to know more about the tests, treatment and what to eat and avoid in dengue.

Did You Know? You could pass on the dengue infection to your family. This is because the dengue virus could be present in the blood of the infected person during the first week of an infection. So if a mosquito bites the person, it can spread the virus to other people by biting them. Protect your family from mosquito bites by using mosquito repellents. Buy Now Complications Of Dengue

Rarely, severe dengue can be complicated by organ damage and internal bleeding (dengue hemorrhagic fever). This results in sudden drop in blood pressure, feeble pulse, hypovolemia and eventually dengue shock syndrome.

The World Health Organization (WHO) has laid down criteria for a diagnosis of dengue hemorrhagic fever. These are: Low platelet count (<1 lac) Fever for 2 to 7 days Hemorrhagic manifestations (internal bleeding)

In the early stages, the platelet count is usually within normal range but hemoglobin level may be high. If the hemoglobin level is raised (>14g/dL), a doctor should be consulted even if the platelet count is in the normal range. The platelet count begins to fall once the fever starts to come down. Even when the platelet count is falling, there is no need to panic.

REMEMBER! There is no role of platelet transfusions in a patient who has no active bleeding. Do not insist your doctor for platelet transfusion in the absence of bleeding. Frequently Asked Questions When should I suspect that I have dengue? What blood test should be done to detect dengue? Can I have dengue if my platelet count is normal ? My fever is gone. Does this mean I don’t have to worry now? Can dengue be managed at home? When is the patient of dengue hospitalized? I had dengue recently. Can I get it again? Is there a vaccine for dengue? Is dengue vaccine available for use in India? Is dengue contagious? References Symptoms and Treatment. Dengue. CDC. Rajapakse S, Rodrigo C, Rajapakse A. Treatment of dengue fever. Infect Drug Resist. 2012;5:103-112. Gupta N, Srivastava S, Jain A, Chaturvedi UC. Dengue in India. Indian J Med Res. 2012;136(3):373-390. Dengue and severe dengue. Factsheets. WHO. Clinical Diagnosis. WHO. Ganeshkumar P, Murhekar MV, Poornima V, et al. Dengue infection in India: A systematic review and meta-analysis. PLoS Negl Trop Dis. 2018;12(7):e0006618. Murhekar MV, Kamaraj P, Kumar MS, et al. Burden of dengue infection in India, 2017: a cross-sectional population based serosurvey. Lancet Glob Health. 2019 Aug;7(8):e1065-e1073. Chakravarti A, Roy P, Malik S, Siddiqui O, Thakur P. A study on gender-related differences in laboratory characteristics of dengue fever. Indian J Med Microbiol 2016;34:82-4 Samanta J, Sharma V. Dengue and its effects on liver. World J Clin Cases. 2015;3(2):125-131. Subenthiran S, Choon TC, Cheong KC et al. Carica Papaya leaves juice significantly accelerates the rate of increase in platelet count among patients with dengue fever and dengue haemorrhagic fever. Evidence-based Complement Altern Med. 2013;2013:1-7.

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Dental pain Also known as Toothache, Odontogenic Pain, Tooth Pain Overview Most of us might have experienced toothache at least once in our lifetime. A toothache or dental pain is any pain that originates from the tooth and its surrounding structures such as the gums.The intensity of pain may range from mild dull aching to severe excruciating pain.

Toothache can occur from various dental causes like tooth cavity, tooth fracture, broken old fillings, gum infections, grinding of teeth etc. Rarely, pain is experienced in teeth because of non dental causes like sinusitis, heart attack, lockjaw, trigeminal neuralgia etc. Therefore, it is important to differentiate dental pain from such conditions that cause referred pain in the teeth.

Dental pain can happen at any age, but it is more common in school going children or the elderly population. Following good oral hygiene practices is one of the simple yet effective ways to keep teeth and gums healthy and prevent dental pain. In case when dental pain is experienced, painkillers and some home remedies might provide temporary relief but a dental consultation followed by required dental procedures are highly recommended. Key Facts Usually seen in Children below 15 years of age Adults above 65 years of age Gender affected Both men and women but more common in women Body part(s) involved Teeth Gums Prevalence Worldwide: 9.4% (2015)

Mimicking Conditions Sinusitis Migraine Otalgia or ear pain Trigeminal neuralgia Post-traumatic neuropathy Temporomandibular joint disorder Orofacial neurovascular pain Cardiac pain Necessary health tests/imaging Tooth X-Ray X-Ray TM joints CBCT Complete blood count (CBC) Erythrocyte sedimentation rate (ESR) Diabetes screening Treatment Pain releivers: NSAIDs, opoids & antyi sensitivity toothpastes Antibiotics Mouthwashes Dental procedures: Scaling & planing, cavity filling, root canal treatment & tooth extraction See All Symptoms Of Dental Pain

Dental pain can vary in intensity from mild to severe. It can also range from dull-aching pain to sharp-shooting pain based on the causative factors. A range of symptoms can be seen with dental pain such as: Dull-aching toothache that may radiate to the gums or jaws. Pain that worsens while biting or chewing food. Pain exacerbated by excessively hot or cold foods or sweets. Pain accompanied by bleeding or discharge from the gums. Swelling of the gums or face, which may be accompanied by a fever. Occasionally, a bad mouth odor and bad taste in the mouth may be present, along with toothache. Causes Of Dental Pain

There can be multiple causes of dental pain such as: Fracture of the tooth Dental caries or tooth decay that cause cavities and infection in the tooth Periodontal or gum infections A dental abscess, i.e., a collection of pus or fluid near the tooth, which occurs in tooth infections Erosion of tooth enamel and gum recession Lack of space for eruption of wisdom teeth Accumulation of food particles and debris between the teeth Repetitive clenching or grinding of teeth Loose or fractured old filling or a cracked tooth cap Ill-fitted dentures or braces Risk Factors For Dental Pain

Dental pain is most commonly seen in children and adolescents, with a prevalence rate ranging around 9.4%. It is more common in the lower socio-economic population who have limited access to quality healthcare. Dental pain is also common in the elderly population and is the primary reason for dental procedures in the elderly population. Additionally, the risk of dental problems is more often associated with the following: Poor oral hygiene Excessive consumption of sweets, starchy or acidic food and drinks Smoking Diabetes Weak immune system due to certain medications (such as chemotherapy for cancer) or certain diseases (such as HIV) Xerostomia or dry mouth due to inadequate salivation which can happen after injury to head or neck, after radiation therapy or as side effect of certain drugs Heartburn or gastroesophageal reflux disease (GERD) can cause stomach acid to flow into the mouth, leading to dissolution of enamel and thereby causing tooth damage. Eating disorders like Anorexia and Bulimia can lead to wearing of teeth and cavities. They also affect production of saliva. Many parents are in a dilemma about their child’s dental care. They know they don’t want their kid to get cavities but don’t know how to go about preventing them. Here are some tips to ensure your toddler gets proper tooth care. Click Here To Know More!

Diagnosis Of Dental Pain

When you visit your dentist for dental pain, they will perform a thorough oral examination and get a detailed history of symptoms.

Some of the common tests used to diagnose dental pain include: A tooth percussion test is done by gently tapping the tooth with the end of mouth mirror to check the response. To perform a tooth mobility test, the dentist carefully tries to move your tooth to check whether it is loose. A tooth sensitivity test involves checking the response of the tooth to hot or cold stimuli.

Additional investigations may be needed to evaluate the condition further which include imaging studies and lab tests.

Imaging studies: Dental X-Ray and X-Ray TM Joints help visualize the teeth and jaws to know what abnormalities may potentially be causing the pain. A detailed visualization is possible with CBCT (Cone Beam Computed Tomography). This method is used when individual x-rays of teeth alone are unable to identify the cause of dental pain.

Laboratory tests: Sometimes, lab tests such as complete blood count (CBC), erythrocyte sedimentation rate (ESR) and diabetes screening may help diagnosis in treatment planning. Celebs affected Ray J Celebrity rapper Ray J complained of toothaches while filming the reality show ‘Celebrity Big Brother’. He was hospitalized and diagnosed with an abscessed tooth, cracked filling in another tooth, and gum disease. Ariana Grande American singer Ariana Grande has undergone extraction of three wisdom teeth that were causing unbearable pain. Prevention Of Dental Pain

Since most of the toothaches occur due to poor oral hygiene, good dental hygiene practices can mostly prevent dental pain. You can keep your teeth and gums healthy by- Brushing gently with fluoride-containing toothpaste at least twice a day Flossing regularly to clean the spaces between the teeth Rinsing and gargling after meals to prevent lodging of food particles and debris between the teeth Avoiding excessive sugar, starch or acidic food and beverages in your diet Reducing consumption of sticky foods like caramel or chocolate that get stuck in grooves and pits of teeth for a long duration When consuming sweet foods, it is better to consume them with the meal rather than as a snack. Avoiding frequent snacking. When you eat or drink beverages other than water,bacteria in the mouth create acids that can dissolve tooth enamel. Frequent snacking throughout the day can keep your teeth under constant attack. Avoiding extremely hot or cold foods if you have sensitivity issues Avoiding chewing on very hard foods like ice or sugarcane that can cause tooth fractures. Using teeth for opening food packets or cracking open nutshells can also increase the chances of a tooth fracture. Regular appointments with the dentist for professional cleaning of teeth and examinations. Application of dental sealants or protective coatings on teeth and fluoride treatment if advised by the dentist. Brushing twice is good but brushing right is the key Brushing your teeth twice a day is important, but it is NOT enough to start your day on a healthy note. It is equally important to brush your teeth THE RIGHT WAY as it helps to destroy harmful bacteria present in the mouth along with cleaning the teeth and gums effectively. But do you know what is the right way to brush your teeth, if you do then are you following the steps regularly? Well, before you answer this question, read the article. Read Article Here! Specialist To Visit

Toothaches can be very uncomfortable but the pain isn’t permanent as long as it’s treated. Your dentist can relieve your pain and prevent any infections from spreading. It is not advised to delay your visit to the dentist as cavities can get worse over time.

It is necessary to seek dental or medical care if you have: Toothache that lasts more than 2 days Toothache that is severe and persistent in nature Pain that does not go away after taking painkillers Fractured or broken tooth Extreme tooth sensitivity Swelling around the tooth, in the jaw or face Bad odor or foul taste in the mouth Toothache accompanied by fever and chills Earache or pain when you open your mouth wide Trouble swallowing or excessive pain or bleeding from gums A facial rash associated with a toothache Recent head or face injury in addition to dental injury

Doctors/specialists who can help you to diagnose and treat dental problems or any other associated medical issues are: Dentist General physician Consult India’s best doctor online from the comfort of your home. Consult Now!

Treatment Of Dental Pain

The treatment for dental pain is broadly divided into providing pain relief and treating the underlying cause.

1. Medicines for dental pain relief NSAID painkillers are prescribed to provide relief from mild to moderate dental pain. Opioid painkillers or combination medicines are prescribed to treat severe dental pain. Anti sensitivity toothpastes can provide some relief from sensitivity of teeth.
2. Treatment of underlying cause Antibiotics are prescribed by dentists to treat dental infections Mouthwashes are also recommended to combat infections
3. Dental procedures These procedures can be advised if needed and may include: Scaling and planing- In case of plaque accumulation and gum infection,the dentist may carry out professional cleaning or scaling of teeth or numb the gums to remove plaque buildup below the gum line. Cavity filling - For a shallow cavity in the tooth, the dentist will remove the decay and seal the tooth with a filling. Root canal treatment (RCT) - In case of a deep cavity that infects the pulp of the tooth, the dentist will perform a root canal treatment. In this procedure, all the vital contents of the tooth (nerves and blood vessels) are removed and the root canal system is sealed with an inert filling material. RCT is usually followed by a dental cap or crown. Tooth extraction - If the tooth is badly damaged and cannot be saved, it may be advised to get it extracted. Home-care For Dental Pain

If you have mild dental pain, home remedies may provide considerable relief. Home remedies are also useful in alleviating symptoms of severe disease. You can do the following at home to help ease dental pain: For many people, rinsing the mouth with lukewarm saline water is an effective first-line treatment. Saline water is a natural disinfectant, which helps in reducing inflammation and ease any pain or swelling.You can mix 1/2 teaspoon of salt in a glass of lukewarm water and use it as a mouthwash. Applying an ice pack or cold compress externally can help reduce inflammation and swelling and thereby give some relief in pain. Avoid eating foods that are hard to chew. Do not chew on the painful side. You can apply clove oil or peppermint oil to the affected area. It is known to help with pain relief from toothaches. Do not consume excessively hot or cold foods or sweets as these may worsen the sensitivity and increase your pain. Gently brush your teeth at least twice a day. Rinse and gargle after every meal to avoid food particles from getting stuck in between the teeth. Complications Of Dental Pain

A toothache on its own does not cause any severe complications and in most cases, tooth infections can be easily treated.

Sometimes, tooth infection can cause an abscess in which pus is collected inside the tooth or gums. In very rare cases, delay in treatment can cause this infection to spread to other areas of the body resulting in any of the following complications: Sinusitis: can occur rarely from untreated upper teeth infection Osteomyelitis: Infection of the bone surrounding the tooth Ludwig angina: Submandibular space infection Cavernous sinus thrombosis: Infection of the blood vessels within the sinuses Cellulitis: An infection of the skin and fat directly beneath the skin Parapharyngeal abscess: An abscess at the back of the mouth Septicemia: Medical condition in which the immune system overreacts to an infection in the blood These conditions can be life threatening and require immediate attention and intervention. The following signs and symptoms may indicate any possible spread of infection to other parts of the body: High fever Chills Swelling of the face or the jaw Foul-smelling discharge from the tooth Nausea Vomiting Severe headache Itching or burning sensation on the skin Drooping eyelids Double vision Confusion Alternative Therapies For Dental Pain

1. Ayurveda: Dental or oral health is called ‘Danta Swasthya’ in Ayurveda. There are various Ayurvedic practices which can be opted for good oral health, such as: Chewing sticks of medicinal trees, like Neem, Meswak, etc., are used as an alternative to conventional brushing techniques. While chewing these sticks, the medicinal extracts get released into the mouth, which helps promote and maintain healthy teeth and gums. Oil pulling is an ancient practice that involves swishing oils inside the mouth. Sunflower oil, sesame oil, or coconut oil is used for oil pulling. This has been used as a traditional remedy to prevent teeth and gum diseases. Medicinal condiments and herbs like clove, garlic, vanilla extract, peppermint, wheatgrass, thyme are found to be useful in relieving dental pain and are famously used as home remedies to treat toothaches.
2. Homeopathy: Homeopathy is an alternative form of medicine that follows the principle of ‘like kills like’. Homeopathy doctors prescribe diluted tinctures that elicit symptoms similar to those the patient is already experiencing. Tinctures of Belladonna and Arnica Montana are found to be useful in relieving toothaches. Calcarea carbonica, Chamomilla, Antimonium crudum, etc., are also helpful in relieving dental pain. Arsenicum album is effective in treating gum diseases, such as bleeding gums. You can prevent tooth pain by following basic oral hygiene such as brushing and flossing your teeth twice a day and regularly visiting your dentist’s clinic. However, if you are suffering from a toothache, then you can try these simple home remedies to get some relief in pain naturally. Click Here!

Living With Dental Pain

Dental Pain or Toothache is one of the commonest pain experienced by patients worldwide. It’s normal to occasionally battle with tooth pain because of sensitive teeth, gums infections or dental cavities. Though good and consistent oral hygiene measures help in preventing a lot of dental problems, sometimes, as much as one tries to brush twice a day, floss every day, and eat a healthy diet, one can still suffer from dental issues. For eg. Some may be genetically predisposed to have more brittle,sensitive teeth or more acidic saliva. Unfortunately, some can suffer from any form of accident resulting in fracture of teeth and thereby resulting in dental pain.

Dental pain can come with a lot of annoyance and irritation. Continuous pain can lead to avoidance of food and thereby causing nutritional deficiencies or weight loss. Due to heightened dental sensitivity patients may not be able to enjoy their favorite sweets or ice-cream. Another cause of concern in patients with dental infections is bad breath or foul odor coming from the mouth. This can lead to extreme social embarrassment or isolation.

Prevention of a disease is always better than its cure. Good oral hygiene practices and routine visits to the dentist are essential to keep the teeth and gums healthy life-long. In cases where dental problems happen in spite of taking precautions, one should not be disheartened as most dental problems are easily treatable and have a good outlook. Home remedies and a prompt visit to the dentist without much delay can go a long way in getting relief from toothache. Frequently Asked Questions What is the sensitivity of teeth and what does it feel like? My child broke half his tooth while playing. What should I do? What are some home remedies for instant pain relief from toothache? Can a toothache be cured at home or I need to visit a dentist? Why is my toothache so severe? References Renton T. Dental (Odontogenic) Pain. Rev Pain. 2011 Mar;5(1):2-7 Slade GD. Epidemiology of dental pain and dental caries among children and adolescents. Community Dent Health. 2001 Dec;18(4):219-27. Wetherell J, Richards L, Sambrook P, Townsend G. Management of acute dental pain: a practical approach for primary health care providers. Aust Prescr 2001;24:144-8. Toothache. NHS UK Singh A, Purohit B. Tooth brushing, oil pulling and tissue regeneration: A review of holistic approaches to oral health. J Ayurveda Integr Med. 2011 Apr;2(2):64-8. Newadkar UR, Chaudhari L, Khalekar YK. Homeopathy in Dentistry: Is There a Role? Pharmacognosy Res. 2016 Jul-Sep;8(3):217. Clementino MA, Gomes MC, Pinto-Sarmento TC, et al. Perceived Impact of Dental Pain on the Quality of Life of Preschool Children and Their Families. PLoS One. 2015;10(6):e0130602. Gleissner C. Welchen Einfluss hat das Geschlecht auf die Mundgesundheit? [How does gender influence oral health?]. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz. 2014 Sep;57(9):1099-106. German.

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Depression Also known as Melancholia and Pessimism Overview Depression is a mood disorder that drains you of hope, motivation and energy and keeps you in a consistent feeling of sadness. It starts with subtle signs like difficulty in focusing, poor recalling abilities, feeling low quite often, and changes in appetite. Most of the people tend to ignore these signs, till it manifests as a clinical illness and can have serious health implications.

Depression is a complex disorder most likely triggered by overlapping biological, psychological, and environmental factors. It is much more common than we think and anyone can suffer from depression, even a person who appears to live in relatively ideal circumstances.

Depression is not something to be embarrassed or ashamed about. It is a bodily disorder and needs medical intervention like any other disease. Timely and right medical treatment along with self care can go a long way in managing it. So speak up, treating depression as a taboo will only make matters worse. Key Facts Usually seen in Adults above 60 years of age Gender affected Both men and women but more common in women Body part(s) involved Brain Prevalence Worldwide: 280 million (2021) India: 57 million (2020) Mimicking Conditions Bipolar disorder Persistent depressive disorder (PDD) Adjustment disorder with depressed mood Neurological conditions (Dementia, Parkinson’s disease and multiple sclerosis) Thyroid dysfunction Drugs and substance abuse Hypopituitarism Necessary health tests/imaging Psychiatric evaluation Blood tests: Complete blood cell (CBC) count, Vitamin B-12, Blood alcohol level & Toxic screening test Imaging tests: CT scan & MRI of the brain Treatment SSRIs: Fluoxetine, Sertraline & Paroxetine SNRIs: Duloxetine, Milnacipran & Venlafaxine MAO inhibitors: Phenelzine, Isocarboxazid & Tranylcypromine Tricyclic antidepressants: Nortriptyline, Amitriptyline & Imipramine Atypical depressants: Mirtazapine, Agomelatine & Bupropion Psychotherapy: Cognitive behavioral therapy (CBT) & Interpersonal therapy (IPT) Surgical and other interventions: Electro-convulsive therapy (ECT), Transcranial magnetic stimulation (TMS) & Vagus nerve stimulation (VNS) See All Symptoms Of Depression Depression is a mental illness which starts with subtle signs like difficulty in focusing, poor recalling abilities, feeling low quite often and changes in appetite. Most of the people tend to ignore these signs, till it manifests as a clinical illness and can have serious and life changing health implications.

Here are the most common and early signs of depression. If you or anyone in your family is experiencing these signs, you may need to consult a therapist or a psychiatrist.

1. Getting irritated very often Many people think that depression leads to just sadness. But some people with depression can get angry often, feel irritated over trivial issues and argue over small things. While these signs could be due to stress as well, if you notice an increased irritability in your behavior, do not ignore it. Take a moment to consider the possibility that you may be depressed.
2. Loss of interest A common sign of depression is that you have a lack of interest in otherwise pleasurable activities like your favorite hobbies, meeting friends and in sex. People tend to avoid social gatherings, become more withdrawn and lose the inclinations towards achieving simple everyday goals.
3. Changes in appetite One of the classical signs of depression is a dramatic change in appetite. This can reflect as eating too much or too little. If you have a weight gain or loss of more than 5% of your body weight in one month, it could be a warning sign of depression. Some people take up eating as a way to compensate for how they feel while others experience a loss of interest in food.
4. Being too pessimistic If you find yourself criticizing and cribbing about almost everything all the time and if you tend to hold a negative or demotivating opinion on everything, it could be a sign of depression.
5. Sleep disturbances Most of the people with depression first consult their doctor because of sleeping disturbances they’ve experienced. While having troubled sleep for a couple of nights is a normal phenomenon, persistent sleep difficulties or insomnia can be a symptom of depression. Many people with depression struggle to fall asleep, or stay asleep, despite feeling exhausted. Other people with depression sleep too much.
6. Having aches and pains Your brain is designed in such a manner that when you are struggling with mental health issues, you tend to develop signs of physical illness too. Many people with depression experience unexplained body aches, muscle pains and headaches. But they attribute these to a physical health problem and pop painkillers instead.
7. Feeling tired all the time Depression can make you feel fatigued and tired all the time and lower your energy levels. Most of the people attribute this to excessive workload or increasing age and do not address it in a timely manner. Remember that if small tasks tire you or take longer to complete, you may be depressed.
8. Feeling of guilt Blaming yourself without a logical reasoning for all the events in your life is an unhealthy trait. If you blame yourself responsible for all personal, professional and childhood issues, you may be depressed. Many people with depression also feel worthless. Always pay close attention to your inner thought process. If you feel you are being excessively harsh, critical or illogical, it could be a sign of depression.
9. Difficulty in concentration Many people with depression face forgetfulness and misplace things like their keys or paperwork very frequently. People with early signs of depression experience difficulty concentrating and focusing for example when giving or receiving direction or comprehending what they’re reading, and an inability to remember specific details.

Additional signs include: Low mood/sadness Crying spells Diminished interest in play and activities Problems with concentration Excessive tiredness/fatigue/weakness Behavior symptoms such as anger and aggression/agitation Self-accusation/self-criticism Work difficulty Expectation of punishment Decreased appetite Anorexia Decreased sleep/change in sleeping pattern Increased appetite, weight gain, and excessive sleep Past failure/sense of failure Anhedonia (inability to feel pleasure in normally pleasurable activities) Anxiety symptoms Irritability Hopelessness Physical symptoms/multiple complaints such as headache, abdominal pain, and chest pain Suicidal ideations/thoughts Psychotic features in the form of persecutory delusions Catatonia (inability to move normally or speak) Depersonalization Obsessive compulsive symptoms Guilt Attempted suicide Recent deterioration in school performance Dissatisfaction Self dislike Indecisiveness Social withdrawal Loss of libido Body image changes Poor interaction Decreased interest in school Low self esteem Death wishes Worthlessness Loss of energy Note: Depressive episodes can be categorized as mild, moderate, or severe depending on the number and severity of symptoms, as well as the impact on the individual’s functioning. Common signs and symptoms of depression in children and teenagers are similar to those of adults. Myth: Children cannot get depressed Fact: No age group is immune to depression. Children as young as 5 years of age have shown signs of depression and it need not always be a reaction to a major environmental stressor. Children often show more behavioral symptoms (such as crying, irritability and tantrums) or physical symptoms (such as nausea, lack of appetite, stomach ache and headache), instead of saying that they are feeling sad or have negative thoughts. Social media is also a major contributor to childhood depression in the current time. Read the article to know more. Click To Read! Causes Of Depression The exact cause of depression is not yet known. Depression can occur spontaneously, without any obvious reason. Some experts think it could be due to imbalance in the brain chemicals, while some believe it could be due to a genetic defect. Some believe that a person’s environment and emotions play a crucial role in developing depression.

Hence, depression can be defined in ‘bio-psycho-social’ terms, meaning that it is a complex disorder most likely triggered by overlapping biological, psychological, and environmental factors.

What happens in the brain? Our brain is made up of millions of nerve cells, also known as neurons. These cells are responsible for relaying chemical signals back and forth from the brain to various parts of the body. The neurons interact with each other via chemical messengers known as neurotransmitters (in simple terms brain chemicals). These messages help the brain to have thoughts, emotions and sensations, which play a key role in your brain function and mental wellbeing.

What happens during depression? In depression, it is believed that there is an imbalance in the brain chemicals. There is either too much or too little of these neurotransmitters, which affect your ability to think, feel and emote. These neurotransmitters include dopamine, serotonin, and norepinephrine. Medications to manage depression often focus on altering the levels of these chemicals in the brain.

In some people with depression, brain scans show a smaller hippocampus, which plays a major role in long-term memory. Exposure to stress and other risk factors can impair the growth of nerve cells in the hippocampus and trigger depression. Types Of Depression

1. Major depression It is a condition that is characterized by a combination of symptoms along with a sad mood which interferes with your everyday routine. This includes the ability to sleep, eat, work, and other activities. Episodes of depression can occur once to several times in a lifetime and continue for more than two weeks.
2. Dysthymic disorder In this, the person suffers from a low to moderate level of depression that may last for at least 2 years. Although the symptoms are not as severe as major depression, the condition is resistant to treatment. People with this type of depression may develop major depression.
3. Unspecified depression As the name suggests, this type of depression includes people with symptoms of depression but not quite serious enough to be classified as major depression.
4. Adjustment disorder with depression This includes depression that occurs due to a major life stressor or crisis such as death of a family member, diagnosis of a critical condition, etc.
5. Bipolar depression (mania) A disorder associated with episodes of mood swings ranging from depressive lows to manic highs. Manic episodes may include symptoms such as high energy, reduced need for sleep and loss of touch with reality. Depressive episodes may include symptoms such as low energy, low motivation, and loss of interest in daily activities. Mood episodes last days to months at a time and may also be associated with suicidal thoughts.
6. Seasonal affective disorder (SAD) A mood disorder characterized by depression that occurs at the same time every year. Seasonal affective disorder occurs in climates where there is less sunlight at certain times of the year. Symptoms include fatigue, depression, hopelessness, and social withdrawal. Risk Factors For Depression

Anyone can suffer from depression, even a person who appears to live in relatively ideal circumstances. However, there are many potential factors that can trigger or influence depression:

1. Family history and genetics Genetic makeup and heredity are thought to be significant factors that influence depression. Some types of depression run in families, especially bipolar disorder. While studies suggest that there is a strong genetic component that increases the risk of getting depression, other factors are usually needed to trigger the symptoms.
2. Psychological and social factors History of physical, emotional or sexual abuse Social isolation or loneliness Low socioeconomic status Stressful life events like loss of a loved one, divorce, loss of a job & financial issues Sometimes, even positive events like marriage, shifting places, graduation, or retirement can also cause depression as they alter the daily routine which can trigger feelings
3. Medical conditions Physical health and certain medical conditions like ongoing or chronic physical pain or disease, sleep disorder, thyroid disorder, diabetes, liver disease, multiple sclerosis, Addison’s disease, Parkinson’s disease, and cancer can cause symptoms of depression.
4. Inflammation Inflammation caused by diseases or stress may cause chemical changes in the brain that can trigger or worsen depression in certain people. It can also affect response to drug therapy.
5. Traumatic brain injury (TBI) TBIs or concussions following any injury to the head from falls, accidents, and workplace and sports-related injuries are thought to trigger depression.
6. Certain medications Some medications that treat hypertension (high blood pressure), cancer, and seizures can cause depression. Even some psychiatric medicines such as certain sleeping aids and medications used to treat alcoholism and anxiety, can trigger depression.
7. Personality People who are easily overwhelmed, have trouble coping with stress or anxiety, have low self-esteem or who are generally pessimistic or self critical are more prone to depression.
8. History of other mental health conditions Anxiety disorder, eating disorders or post-traumatic stress disorder, substance use disorders and learning disabilities are commonly associated with or can perpetuate depression.
9. Lifestyle factors Recreational drugs and alcohol can also cause depression or make it worse. Working late till night and getting up late or spending less time outdoors can disrupt the circadian rhythm which may trigger depression. Along with disruption in circadian rhythm, reduced sunlight can also lead to a drop in serotonin and melatonin levels in the body, which can disrupt mood and sound sleep.
10. Poor diet A poor or imbalanced diet with deficiency of vital vitamins and minerals are known to cause depression. Low levels of omega-3 fatty acids, Vitamin D and an imbalanced ratio of omega-6 to omega-3 fatty acids are associated with increased rates of depression. Also, high levels of sugar intake are thought to trigger depression.

Why are women at a higher risk than men? According to the World Health Organization (WHO), the burden of depression is 50% higher for females than males. Depression is widely prevalent in women in India across all age groups.

Psychosocial and social factors that contribute to the increased vulnerability of women to depression include: Stress Victimization Sex-specific socialization Coping style Disadvantaged social status Perceived stigma of mental illness Domestic violence Women have the greatest risk for developing depressive disorders during their child-bearing years. This could be attributed to the hormone changes associated with menstrual cycles, pregnancy, and giving birth. The following types of depression can occur in females:

1. Premenstrual dysphoric disorder: Premenstrual dysphoric disorder is a severe form of premenstrual disorder which affects women in the days or weeks before having their menstrual periods.
2. Antenatal depression: It is also known as prenatal or perinatal depression. It affects women during pregnancy, and can lead to postpartum depression if not treated timely or properly.
3. Postpartum psychiatric disorders: They can be divided into three categories: postpartum blues, postpartum depression and postpartum psychosis.

Postpartum blues Postpartum blues or so-called “baby blues” happen in many women in the days right after delivery. The mother can get overwhelmed and have sudden mood swings. She may feel impatient, irritable, restless, lonely, sad or may cry without any reason. Postpartum blues do not always require any treatment and may resolve in a few days to a week. Love and reassurance, support from the family in sharing childcare duties, and talking to other new mothers can be of great help.

Postpartum depression Postpartum depression can start soon after childbirth or as a continuation of antenatal depression and needs to be treated.The global prevalence of postpartum depression has been estimated as 100‒150 per 1000 births.

A woman can have similar but stronger feelings as experienced in the baby blues. Symptoms of postpartum depression often can get worse and last for as long as one year. Postpartum depression can predispose to chronic or recurrent depression, which may affect the mother-infant relationship and child growth and development. Children of mothers with postpartum depression have greater cognitive, behavioral and interpersonal problems compared with the children of non-depressed mothers. Hence, timely treatment with medication and counseling is very important

Postpartum psychosis Postpartum psychosis, which has a global prevalence ranging from 0.89 to 2.6 per 1000 births, is a severe disorder that begins postpartum. New mothers suffering from postpartum psychosis may feel agitated, angry and show strange behavior. They can also suffer from hallucinations, delusions, insomnia, and rarely have suicidal or homicidal thoughts as well. They require medical attention right away.

Young Vs old: Who is more depressed? The average age for onset of depression across the world varies from 24 to 35 years. In India, the average age of onset of depression is 31.9 years.

There is currently a trend of an increasingly younger age of depression onset. For example, 40% of depressed individuals have their first depressive episode prior to the age of 20, 50% have their first episode between 20 - 50 years of age and the remaining 10%, after 50 years of age.

Adolescent depression Over the years, it is recognized that the age of onset of depression is decreasing and it is now increasingly being recognized in children and adolescents.

Factors associated with depression in children and adolescents are: Stress at school Lower academic performance Failure in examination Stress in the family Change of house/residence Death of a family member Prolonged absence or death of a parent Serious illness End of a relationship Did you know? Coronavirus is known to cause neurologic symptoms in many patients. In addition to these, the pandemic has resulted in a psychological toll due to isolation, lockdowns, loss of loved ones, unemployment, and financial issues. These factors have led to a spike in cases of depression. Read More About COVID-19! Celebs affected Deepika Padukone The Bollywood actress spoke about her battle with depression in 2015 and how counseling helped her to fight it and emerge as a winner. Shah Rukh Khan The superstar of Bollywood was also vocal about being in depression when he suffered a shoulder injury in 2010. Diagnosis Of Depression

The diagnosis of depression is based on history and physical findings. No diagnostic laboratory tests are available to diagnose major depressive disorder.

1. Psychiatric evaluation It is a comprehensive evaluation needed to diagnose emotional, behavioral, or developmental disorders. The evaluation may include description of behaviors (like how long does the changed behavior last, and what are the conditions in which the behaviors most often happen), and complete medical history, including description of the person’s overall physical health, list of any other illnesses or conditions present, and any current ongoing treatments.

DSM 5 Guidelines\*\* These are the 9 symptoms listed in the DSM-5. Five must be present to make the diagnosis of major depressive disorder (one of the symptoms should be depressed mood or loss of interest or pleasure): Sleep disturbance Interest/pleasure reduction Guilt feelings or thoughts of worthlessness Energy changes/fatigue Concentration/attention impairment Appetite/weight changes Psychomotor disturbances Suicidal thoughts Depressed mood 2. Blood tests The diagnosis of depression is based on history and physical findings. No diagnostic laboratory tests are available to diagnose major depressive disorder. However, laboratory tests can help in the exclusion of any underlying medical conditions that can manifest as depression. These include: Complete blood cell (CBC) count Thyroid-stimulating hormone (TSH) Vitamin B-12 Rapid plasma reagin (RPR) Toxic screening (to rule out active substance abuse) HIV test Electrolytes, including calcium, phosphate, and magnesium levels Blood urea nitrogen (BUN) and creatinine Liver function tests (LFTs) Blood alcohol level Blood and urine toxicology screen Arterial blood gas (ABG) Dexamethasone suppression test (Cushing disease, but also positive in depression) Cosyntropin (ACTH) stimulation test (Addison disease)  
Book A Test!

1. Imaging tests Just like blood tests, imaging tests can help to rule out the other medical causes and conditions. These include: CT scan MRI of the brain Specialist To Visit

If you have some of these classic symptoms of depression and if your symptoms are severe and have lasted longer than a few weeks, you should seek help. The best place to start is with your doctor.

Doctors/specialist you can visit include: General physician Psychiatrist Clinical psychologist Book a consultation with our doctors now and solve your problems. Consult Now! Treatment Of Depression

Depression is among the most treatable of mental disorders. The treatment of depression involves both pharmacological (medical) and psychological approaches.

1. Medical therapy The drugs used to treat depression are known as antidepressants. These drugs may produce some improvement within the first week or two of use yet full benefits may not be seen for two to three months. If a patient feels little or no improvement after several weeks, his or her psychiatrist can alter the dose of the medication or add or substitute another antidepressant. In some situations, other psychotropic medications may be helpful. It is important to let your doctor know if a medication does not work or if you experience side effects.

Also, the possible reasons for no improvement in the symptoms post treatment include: Not taking the antidepressants for the recommended period because ideally, antidepressants might take 8 to 12 weeks to show any effect. Not taking the medications regularly. Taking the medicines in low doses (under dosing). Always discuss with your doctor prior to making any dose changes. Concurrent substance abuse which might contribute to the non responsiveness of depressive symptoms. Some underlying medical disorder which has been unaddressed. Antidepressants can be classified into typical antidepressants and atypical antidepressants.

1. Typical antidepressants These are further divided into:
2. Selective serotonin reuptake inhibitors (SSRIs) SSRIs are used as frontline drugs for the treatment of depression and anxiety. These drugs increase the level of serotonin and brain derived neurotrophic factor (BDNF). Examples of this class of drugs include: Escitalopram Fluoxetine Sertraline Paroxetine
3. Serotonin and nor-adrenaline reuptake inhibitors (SNRIs) As the name suggests, SNRIs are the drugs that aid in the treatment of depression by increasing the level of serotonin and noradrenaline in the body. The list of drugs that fall under this category include: Duloxetine Milnacipran Venlafaxine
4. Monoamine oxidase (MAO) inhibitors This type of antidepressant primarily increases the level of noradrenaline, thereby improving the symptoms of depression. However, these drugs also increase the level of serotonin in the body. Some of the commonly prescribed MAO inhibitors include: Phenelzine Isocarboxazid Tranylcypromine
5. Tricyclic antidepressants (TCA) This class of antidepressants work by increasing levels of the hormone noradrenaline in the body. These are outdated medications (not used currently). Examples of these drugs include: Nortriptyline Amitriptyline Imipramine Note: Selegiline, a newer MAOI that sticks on the skin as a patch, may cause fewer side effects than other MAOIs do.
6. Atypical antidepressants As this class of drugs do not have a specific action mechanism they are known as atypical antidepressants. Some of the common examples of these medications are: Mirtazapine Agomelatine Bupropion Atomoxetine Here are 8 things about antidepressants everyone needs to know. Read To Know!
7. Psychotherapy Also known as talk therapy or psychological therapy, it is a common approach used for treating depression by talking about your condition and related issues in the form of counseling sessions with a mental health professional. Cognitive behavioral therapy (CBT): This type of psychological therapy helps teach the patient coping skills to manage their difficult conditions. The therapy focuses on the cognitive component. This helps the patient to change their thinking about a particular situation and the behavioral component which further helps them to change their reactions to any situation. Interpersonal therapy (IPT): This is a time-limited approach that focuses on improving the symptoms of depression and treating mood disorders. In this, a therapist emphatically engages the patient to improve their communication with others and solve the problem.
8. Surgical and other interventions Electro-convulsive therapy (ECT): Also known as shock therapy, this mode of treatment is the best for acute depression. It is also useful for patients who do not respond to drug therapy, are psychotic, or are suicidal or dangerous to themselves. Onset of action may be more rapid than that of drug treatments, with benefit often seen within 1 week of commencing treatment. Transcranial magnetic stimulation (TMS): It is usually reserved for those who haven’t responded to antidepressants. During TMS, a treatment coil placed against your scalp, it sends brief magnetic pulses to stimulate nerve cells in your brain that are involved in mood regulation and depression. Vagus nerve stimulation (VNS): This approach is also used in refractory cases. Like ECT, it uses electrical stimulation to relieve the symptoms of depression. The difference is that the device is surgically implanted in your body. VNS is FDA-approved for the long-term (not acute) depression of chronic depression that does not respond to at least two antidepressant trials. Its effects may take up to 9 months to appear and studies have shown that a meaningful response seems to occur only in about 1 in 3 people. Complications Of Depression

Depression in elderly can lead to severe health complications which include: Excess disability Forgetfulness Increased symptoms from medical illness Suicidal thoughts Myth: Depression is caused by evil spells (jaadu-tona) Fact: Like hypertension and diabetes, depressive disorders are caused by a chemical disturbance in a part of the body (in this case the brain is the part of the body affected). These disorders are not caused by black magic and do not need treatments by spiritual healers (ojha-tantrik/jhaad-phoonk). Getting the right professional guidance can help you in treating depression. Consult Now! Alternative Therapies For Depression

Yoga

1. Setubandhasana (Bridge pose) Lying flat on your back with hands on your sides, bend your knees so that your feet are flat on the ground and as close to your buttocks as possible. Slowly raise your hips with your hands lying on the side and hold the pose for 5 breaths.
2. Marjariasana (Cat stretch) Lying on the floor face-down, get up on all fours with palms planted on the ground and knees bent so that you resemble a cat. Your back should be gently arched. Now breathe normally for 5 counts. This pose relaxes stomach and spine muscles.
3. Sukhasana (Easy pose) This one is to give you calmness in your mind and body. Sit cross legged in a comfortable place with your spine straight and palms on your knees like you would be sitting for meditation. Then breathe normally and focus on the breath entering and exiting your body.
4. Balasana (Child pose) For this pose, you have to sit on your heels with your knees bent. With your arms resting on your thighs, bend your torso towards the floor with your nose touching the floor. Bring your arms to your sides near your feet with your palms facing upward. Breathe deeply for 5 to 10 counts.
5. Savasana (Corpse pose) This one is the easiest and leads to deep relaxation. Just lie down on your back and leave your hands loose on your sides. Let your body relax and sink while taking deep breaths. You can also try a supported Savasana where a blanket or a pillow is placed along the length of your back.
6. Paschimottanasana (Seated forward bend) Besides reducing depression and anxiety, this pose will help in digestion, stretching of back and leg muscles and promotes healthy kidneys and uterus. While sitting with your legs stretched out straight in front of you, bend your torso forward and downward with your nose touching your knees. Stretch out your hands parallel and above your legs to hold your feet with your palms. Did you know? A 2017 report from the World Health Organization stated that depression is the leading cause of disability in the world, affecting more than 300 million people worldwide. Here are some natural ways to fight depression. Check Here Now! Living With Depression

Here is a list of practical ways that will help you cope with depression effectively:

1. Speak up To effectively fight depression, it is important for you to seek social help. Connect with your friends and family. Try to talk as much and share your problems. Talking about your worries will help to lessen the burden of your problem.
2. Engage in activities that make you happy Depression wipes you off the energy and the zeal to engage yourself in activities that once were your passion. Not trying to pull yourself out of this state shall only worsen your depression. Engage yourself in activities that keep you happy to fight depression effectively. Stay active by opting for activities that relax and energize you.
3. Don’t be harsh on yourself Depression puts you at an increased risk of self-hate and embarrassment. It makes you think negatively and very critically over all issues. It is important that you remain compassionate towards your own self and not demean or discourage yourself from connecting with others. Research suggests that supporting others has been found to boost one’s mood and makes one feel happy. To overcome this condition, it is important for you to love your own self.
4. Get moving Depression tends to keep you in bed or glued to your couch. The less you move around the more worse it may get. Go for a 20 minute walk everyday with a friend or alone. You could also pick a sport that interests you or any other physical activity that would keep you moving. Exercise has been found to increase the production of neurochemicals such as endorphins that elevate the mood and make you happy.
5. Get some sunshine Studies suggest that sunlight has a therapeutic effect on those suffering from depression. Sunlight has been found to boost depressed mood and serves as a therapy. Take short walks outdoors in the sunlight. Instead of opting to have coffee/ tea in a dark room, try doing the same in the sun. If you practice yoga, do it during the early morning hours and enjoy the benefits of sunlight as well.
6. Have mood enhancing foods While fighting depression, include foods that are rich in B complex, Vitamin C and omega-3 fatty acids. Omega-3 rich foods (rich in EPA and DHA) have been found to stabilize mood swings. Include foods such as fatty fish or fish oil supplements to your diet. Do not skip your meals. Make sure you eat after regular hours (2-3 hours). Minimize the intake of sugars and refined carbs such as bakery items, pasta and french fries as they may lead to energy crash.
7. Seek medical help In severe cases, when all the above mentioned practical tips fail to get results it is better that you seek help from a therapist. Medical help will help you combat the situation and keep your symptoms in check. Depression and related conditions

Diabetes Did you know depression occurrence is two to three times higher in people with diabetes mellitus?

The prevalence rates of depression could be up to three-times higher in patients with type 1 diabetes and twice as high in people with type 2 diabetes compared with the general population worldwide. The presence of depression and anxiety in diabetic patients is known to worsen the prognosis of diabetes, increase the non-compliance to the medical treatment, poor quality of life and mortality.

The common cause could be stress and inflammation, as both promote depression and type 2 diabetes, giving a feasible common link between them.

Heart disease Depression is known to be associated with poorer outcomes of coronary heart disease (CHD). Depression can act as a risk factor for a poor prognosis after a heart attack or unstable angina (chest pain at rest due to reduced blood flow to the heart). It was also found that the risk of death in heart attack survivors with depression was three times that of those without depression.

It has been linked to low-grade inflammation, which is involved in the clogging of arteries and the rupture of cholesterol-filled plaque.

Depression also boosts the production of stress hormones, which dull the response of the heart and arteries to demands for increased blood flow. It activates blood cell fragments known as platelets, making them more likely to clump and form clots in the bloodstream.

Depression and other mental disorders

Anxiety disorders Comorbid anxiety is common in patients with depressive disorders. It complicates the clinical presentation of depressive disorders and can contribute to treatment resistance. Studies have shown that more than 70% of individuals with depressive disorders also have anxiety symptoms and 40 to 70% simultaneously met criteria for at least one type of anxiety disorder. The concurrent presence of anxiety symptoms or anxiety disorders often complicates the treatment of depressive disorders.

Schizophrenia Although technically, depression and schizophrenia are totally different, it is seen that depressed mood is commonly associated with first-episode schizophrenia. Schizophrenia is a chronic mental disorder that affects how a person thinks, feels, behaves, and interacts with his/her surroundings. Moreover, it is reported that these symptoms impair the everyday life of the patient as well as the quality of life which requires medical treatment as well as hospitalization, in some cases.

Eating disorders Both depressive disorders and eating disorders are multidimensional and heterogeneous disorders. Research shows that 32-39% of people with anorexia nervosa, 36-50% of people with bulimia nervosa, and 33% of people with binge eating disorder are also diagnosed with major depressive disorder. They are much more common among women and girls, but men and boys account for about 5 to 15 percent of those with anorexia or bulimia and about 35 percent of those with binge eating disorder.

Substance abuse It’s no secret that there is a strong connection between substance use and mental illness. A strong link of depression with substance use and impairment would suggest that depressed substance users may require enhanced treatment interventions.

Phobias Phobias are a form of anxiety disorder, wherein a patient will have an irrational, and all-encompassing fear of a person, place, thing, or a specific situation. Unfortunately, depression and anxiety are closely linked. Some of the common phobias include: Aviophobia/aerophobia (fear of flying) Emetophobia (fear of vomiting) Amaxophobia (fear of driving) Frequently Asked Questions What is the number one cause of depression? Which hormone is responsible for depression? What raises serotonin levels in the brain? What part of your brain is affected by depression? Which gender is more likely to be depressed? Is depression a genetic disease? Do I need to take antidepressants forever? What happens if you take antidepressants without depression? What are protective factors for depression? How can I boost my mood naturally? Can depression be cured? Is depression an illness or a state of mind? Can depression be caused by something other than stress? Are all antidepressants sedative in nature? Can depression be controlled by willpower and involvement? References Key facts. Depression. World Health Organization. Last updated in Sept, 2021. What Is Depression? Depression. American Psychiatric Association. Last reviewed in Oct, 2020. Overview. Depression. National Institute of Mental Health. National Institute of Health. Last revised in Feb, 2018. Gandhi P A, Kishore J. Prevalence of depression and the associated factors among the software professionals in Delhi: A cross-sectional study. Indian J Public Health 2020;64:413-6. Depression. National Health Portal. India. Last updated on Sept, 2015. Arvind BA, Gururaj G, Loganathan S, et al. Prevalence and socioeconomic impact of depressive disorders in India: multisite population-based cross-sectional study. BMJ Open. 2019;9(6):e027250. Published 2019 Jun 27. Kraus C, Kadriu B, Lanzenberger R, Zarate CA Jr, Kasper S. Prognosis and improved outcomes in major depression: a review. Transl Psychiatry. 2019;9(1):127. Published 2019 Apr 3. Chand SP, Arif H. Depression. [Updated 2021 Jul 26]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Brigitta B. Pathophysiology of depression and mechanisms of treatment. Dialogues Clin Neurosci. 2002;4(1):7-20. InformedHealth.org [Internet]. Cologne, Germany: Institute for Quality and Efficiency in Health Care (IQWiG); 2006-. Depression: Overview. [Updated 2020 Jun 18]. Wang J, Wu X, Lai W, et al. Prevalence of depression and depressive symptoms among outpatients: a systematic review and meta-analysis. BMJ Open. 2017;7(8):e017173. Published 2017 Aug 23. National Research Council (US) and Institute of Medicine (US) Committee on Depression, Parenting Practices, and the Healthy Development of Children; England MJ, Sim LJ, editors. Depression in Parents, Parenting, and Children: Opportunities to Improve Identification, Treatment, and Prevention. Washington (DC): National Academies Press (US); 2009. 3, The Etiology of Depression. Kaltenboeck A, Harmer C. The neuroscience of depressive disorders: A brief review of the past and some considerations about the future. Brain Neurosci Adv. 2018;2:2398212818799269. Published 2018 Oct 8.

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Diabetes Also known as Diabetes Mellitus, Hyperglycemia, High Blood Sugar Overview Diabetes, also known as diabetes mellitus, is a long-term metabolic disorder that causes high levels of glucose in the blood. It occurs when the pancreas – which produces the hormone insulin – either fails to produce (any or enough) insulin or fails to effectively use the insulin to keep the blood glucose in control. There are two main types of diabetes: Type 1 and Type 2. Type 1 diabetes is known as juvenile diabetes or childhood diabetes because it occurs most frequently in children and young people. Type 2 diabetes accounts for the vast majority (around 90%) of diabetes worldwide and affects people in their 20s to 80s.

If diagnosed with diabetes (fasting >126 mg/dl and/or post meal >200 mg/dl), you may need to undergo several health tests periodically. The common lab tests include blood tests and urine tests. Diabetes can be treated with lifestyle modifications, oral medications, and a few injectables. High blood glucose, if left unchecked over the long term, can cause damage to the eyes, nerves, kidneys, legs, and heart.

Diabetes requires lifelong commitment towards following a healthy lifestyle, taking medicines on time, and getting regular checkups to detect any complications. Key Facts Usually seen in Type 1 diabetes: Children below 15 years of age Type 2 diabetes: Adults between 20 to 80 years of age Gender affected Both men and women Body part(s) involved Pancreas Eyes Nerves Feet Heart Kidneys Reproductive system Prevalence Worldwide: 463 Million (2019) India: 77 Million (2019) Mimicking Conditions Metabolic syndrome Hypothyroidism Hemochromatosis Pancreatitis Cystic fibrosis Infections Cushing Syndrome Necessary health tests/imaging Glucose-Fasting Blood (FBG) Test Glucose Postprandial Blood (PPBG) Test Glycosylated Hemoglobin (HbA1c) Test Glucose-Random Blood (RBG) Test Treatment Biguanides: Metformin Sulfonylureas: Glimepiride & Glipizide Thiazolidinediones: Pioglitazone Meglitinides: Repaglinide & Nateglinide Alpha-glucosidase inhibitors: Acarbose & Miglitol DPP-4 inhibitors: Sitagliptin & Saxagliptin Incretin mimetics: Exenatide, Liraglutide & Dulaglutide Rapid acting insulin: Lispro & Glulisine Short acting insulin: Insulin regular & Semilente Intermediate acting insulin: Lente & Insulin Isophane Long acting insulin: Ultralente & protamine zinc Ultra-long acting insulin: Glargine, Detemir & Degludec Insulin pumps Transplants Bariatic surgery

See All Symptoms Of Diabetes

Irrespective of the types, some of the common symptoms of diabetes include: Frequent urination Excessive thirst Sudden losss of weight Increased hunger Blurry eyesight Bedwetting Lack of energy/fatigue Delayed healing of cuts and other injuries Dry skin Fungal infections Causes Of Diabetes

Type 1 diabetes It is known to be caused due to an autoimmune reaction in which the immune system attacks the insulin-producing beta cells of the pancreas and leads to destruction. As a result, there is very little or no insulin production, which affects the blood glucose control. Although the exact cause of this process is not yet fully understood, it is believed that genes as well as environmental factors such as viral infection, toxins or dietary factors play a role. It occurs most commonly in children and young people. Type 2 diabetes It is caused because of the inability of the body to respond properly to insulin, leading to insulin resistance. This causes the hormone insulin to be ineffective, which in turn, causes the body to produce more insulin. As a result, the pancreas fails to keep up the body’s demand for more insulin. This gradually causes inadequate production of insulin leading to high blood glucose. Most cases of type 2 diabetes go through a stage known as prediabetes, in which the cells don’t respond normally to insulin. Other types of diabetes Apart from Type 1 and Type 2 Diabetes, there are other forms you should be aware of. These include: 1. Prediabetes As the name suggests, prediabetes is a condition where the blood glucose levels are higher than normal but not high enough to be classified as diabetes. In simple terms, it is a stage that, if left ignored, can develop into type 2 diabetes and diabetes-related complications. This is the reason why it is also known as ‘non-diabetic hyperglycaemia’ or ‘intermediate hyperglycaemia’. There are no clear symptoms of prediabetes, so you may have it and not know it. However, early treatment with lifestyle modifications can actually help to keep your blood glucose levels within the normal range. 2. Gestational diabetes Gestational diabetes mellitus (GDM), defined as diabetes diagnosed during pregnancy, affects a significant proportion of pregnant women worldwide. Women usually develop gestational diabetes between the second or third trimester of pregnancy. The risk of developing this condition during your future pregnancies may also be higher. It also increases the risk of brain and spinal cord anomalies, obesity and glucose intolerance (diabetes) in the child. Due to the major repercussions in mother and baby, it is important for every pregnant woman to be aware of GDM. 3. Monogenic diabetes As the name implies, monogenic diabetes results from a single gene rather than the contributions of multiple genes and environmental factors as seen in type 1 and type 2 diabetes. It is much less common and represents 1.5–2% of all cases. It is often misdiagnosed as either type 1 or type 2 diabetes. These monogenic forms present a broad spectrum from neonatal diabetes mellitus (or ‘monogenic diabetes of infancy’), maturity onset diabetes of the young (MODY) and rare diabetes associated syndromic diseases. Note: Impaired glucose tolerance (IGT) and impaired fasting glycaemia (IFG) are intermediate conditions in the transition between normality and diabetes. People with IGT or IFG are at a high risk of progressing to type 2 diabetes, although this is not inevitable. Risk Factors For Diabetes

Depending upon the type, there are several risk factors for diabetes. These include:

1. Type 1 diabetes Although there are not many risk factors of type 1 diabetes, some factors that are known to up the risk include: Presence of certain types of genes Environmental triggers or a virus (any sort of infection or bacteria), which can initiate an autoimmune reaction Presence of autoantibodies (antibodies that mistakenly attack your own body’s tissues or organs) Geographic location (certain countries, such as Finland and Sweden, have higher rates of type 1 diabetes) Family history of diabetes
2. Type 2 diabetes Although type 2 diabetes is common in adults, it is also seen in older children due to childhood obesity becoming more common. The list of factors that increase the risk of type 2 diabetes include: Being overweight or obese Being a smoker Family history of diabetes Family history of high cholesterol, hypertension or cardiovascular disease Having a sedentary lifestyle Suffering from polycystic ovarian syndrome (PCOS) Suffering from prediabetes Being pregnant Recurrent wounds/ulcers, which fail to heal Stress History of diabetes in pregnancy History of impaired glucose tolerance
3. Gestational diabetes According to the IDF, women with prior GDM are at a 7.4-fold risk of type 2 diabetes compared to women with normal blood glucose levels during pregnancy. This risk is higher 3 to 6 years post delivery. Certain factors that put you at high risk of gestational diabetes include: BMI (Body Mass Index) that exceeds 30 Excessive weight gain during pregnancy Family history of diabetes History of giving birth to a baby weighing 4.5kg or more Expecting more than one baby (twins/triplets) Family history of hypertension History of miscarriages or stillbirth History of conditions related to insulin resistance or polycystic ovarian syndrome (PCOS) History of habitual smoking Giving birth to a child with congenital abnormality Did you know? Drug or chemical-induced diabetes is a type of diabetes that is caused due to drugs or chemicals such as immunosuppressive drugs (in organ transplant patients), water pills and steroids. Consult a doctor to know more about it. Consult Now Diagnosis Of Diabetes The common lab tests include blood tests and urine tests. Blood tests are:
4. Random blood sugar test The random blood glucose test is done to measure the levels of glucose circulating in the blood. This test is done to diagnose diabetes. You can take this test at any time of the day as it doesn’t need you to fast unlike other tests for diabetes. However, other tests are required to confirm the diagnosis. The test is done as a part of routine preventive health check-up or if you have symptoms of high blood glucose/hyperglycemia. According to the American Diabetes Association guidelines for diabetes testing, the values for random blood glucose test are as follows: Normal: Less than 140 mg/dl Prediabetes: Between 140 and 200 mg/dl Diabetes: Greater than or equal to 200 mg/dl Pregnant women: Greater than or equal to 200 mg/dl
5. Fasting plasma glucose test (FPGT) The fasting blood glucose test is one of the most common tests prescribed for diabetes. It is a blood test that measures the levels of glucose in the blood in the fasting state (empty stomach). Ideally, it is advised to not eat or drink anything (except water) for 8-12 hours before the test. It is the simplest as well as the fastest test to diagnose and monitor diabetes. According to the American Diabetes Association guidelines for diabetes testing, the values for FPGT are as follows: Normal: Less than 100 mg/dl Prediabetes: Between 100 mg/dl to 125 mg/dl Diabetes: Greater than or equal to126 mg/dl Pregnant women: Between 90-140 mg/dl
6. Postprandial blood glucose (PPBG) test It is performed to measure glucose levels in the blood after a period of 2 hours from the start of the last meal. It is usually recommended to screen for prediabetes and diabetes types 1 and 2. It is also used to monitor treatment efficacy in patients undergoing treatment for diabetes. The test is usually recommended when the blood glucose level falls between 140 and 200 mg/dl. According to the American Diabetes Association guidelines for diabetes testing, the values for PPBG are as follows: Normal: Less than 140 mg/dl Impaired glucose tolerance (prediabetes): Between 140 and 200 mg/dl Diabetes: Greater than or equal to 200 mg/dl
7. Hemoglobin A1c (HbA1c) test It is a blood test that measures a person’s average blood glucose level over the past 2 to 3 months. It is ideally used to check how well your diabetes is managed with medication. However, if your fasting and postprandial levels are high, then HbA1c is advised to confirm the diagnosis. According to the American Diabetes Association guidelines for diabetes testing, the values for HbA1c are as follows: Normal: Less than 5.7% Prediabetes: Between 5.7% to 6.4% Diabetes: Greater than or equal to 6.5% Pregnant women: Between 6% to 6.5%
8. Oral glucose tolerance test (OGTT) The test is used to check the blood glucose levels before and 2 hours after you have a sweet drink (which in most cases is a glucose solution). The test tells your doctor how well your body processes the glucose (sugar) which in turn aids in the diagnosis of diabetes. According to the American Diabetes Association guidelines for diabetes testing, the values for OGTT are as follows: Normal : Less than 140 mg/dl Prediabetes: Between 140 mg/dl to 199 mg/dl Diabetes: Greater than or equal to 200 mg/dl Pregnant women: Greater than or equal to 200 mg/dl

Watch this video to know why blood glucose tests are important for diabetics as well as non-diabetics.

1. Other tests If diagnosed with diabetes, you may need to undergo several health tests periodically. These include:
2. Blood pressure According to the American Heart Association, your blood pressure has to be less than 120/80 mmHg. This is because patients who keep their blood pressure under control are less likely to suffer from diabetes-related complications such as heart attacks, blindness, or kidney damage. Get your blood pressure checked at every doctor’s visit or twice every month. You should also self monitor your blood pressure and maintain a blood pressure diary if you have high blood pressure coexisting with diabetes.

To keep a tab on your blood pressure (BP) level, get a digital BP monitor. Buy Now

1. Eye examination You should visit an ophthalmologist (eye specialist) once every year for a detailed eye examination. The doctor would check for any damage to the nerve tissues on the back of the eye (retina). Diabetes may lead to diabetic retinopathy and cataract.
2. Foot examination You must visit your doctor for a foot examination at least once every year to get your pulse and reflexes checked in your feet. You may also be examined for any unhealed cut, infections, sores or loss of feeling anywhere in your feet. Here are a few footcare tips for diabetes.
3. Lipid profile test Cholesterol is a waxy substance present in your blood as HDL (good cholesterol) and LDL (bad cholesterol). With diabetes, the LDL levels and triglycerides tend to increase while the HDL levels decrease, increasing the risk of heart disease and stroke.
4. Kidney function tests You should get a yearly check for your kidneys through kidney function tests (blood tests) and a urine test. This is because, in diabetics, the blood vessels in the kidneys get injured and your kidneys cannot clean your blood properly. As a result, your body will retain more water, salt and protein than it should, which in turn can affect your kidney’s health.
5. Dental checkup Get yourself examined every 6 months by a dentist for your gums, teeth and regular cleaning. This is because high levels of glucose in blood can lead to pain, burning and redness in the mouth and also increase the risk of various oral problems such as gingivitis (inflamed gums), periodontitis (gum disease), oral thrush, and dry mouth.
6. Liver function tests (LFT) It should be done once annually as it helps determine the health of your liver by measuring the levels of proteins, liver enzymes, or bilirubin in your blood. Type 2 diabetes is associated with impairment in liver function by increasing the level of the liver enzymes and the risk of fatty liver disease, liver cirrhosis and liver failure.
7. Vitamin B12 test In case you are taking metformin for a long time, then you must get your Vitamin B12 levels checked as the use of metformin may cause Vitamin B12 deficiency. Periodic measurement of Vitamin B12 levels should be considered especially if you have anemia or peripheral neuropathy. Prevention Of Diabetes

With simple lifestyle changes such as diet control, staying active, keeping a tab on your weight and staying away from vices, you can lower your risk of type 2 diabetes. Here are a few tips to get started. 1. Make healthy food choices Taking care of your diet is one of the most essential components to manage and prevent diabetes. Switch to oils with high volume of monounsaturated fats & polyunsaturated fats like olive oil, canola oil, soybean oil or rice bran oil. Limit intake to one tablespoon a day. Restrict intake of foods with high glycemic index like white breads, white rice, fatty foods, and soda. Consume foods with low glycemic index like multigrain flour, whole grains, daals, most fruits, non-starchy vegetables and carrots. Limit consumption of fast food such as chips, processed foods, etc. 2. Watch your weight Losing weight can help to regulate blood sugar levels. If you have type 2 diabetes, losing just 4-6 kgs can lower your glucose levels. The way fat is distributed in the body can also impact diabetes risk and management. People who have abdominal adiposity (fat around belly) are more prone to type 2 diabetes than those with fat mostly in the thighs, hips, and buttocks.

1. Exercise regularly Regular exercise is a good way to keep your body healthy and prevent diabetes. Exercise at least three times a week for about 30 to 45 minutes. Warm up for 5 minutes before starting to exercise and cool down for 5 minutes after exercise.

Be more active throughout the day. This includes parking your car further from your house/office, opting for stairs instead of the elevator or walking instead of sitting while talking on the phone. 4. Manage stress better Stress can make blood sugar levels harder to control. Avoid unnecessary stress by indulging in activities that can help you relieve stress such as reading, traveling, sports, and other hobbies. You can also try relaxation techniques such as meditation and yoga to alleviate anxiety and stress. You may join a yoga club or take out 10-15 minutes every day to practice meditation.

Finding it hard to deal with stress? Try our wide-range of stress management products. Explore Here

1. Go for regular health check-ups As most of the symptoms of diabetes are not detected until late in its course, it is wise to get a preventive health checkup to know about diabetes. You should get a health check every 6 months to a year if you have any risk factors of diabetes like hypertension, obesity or heart disease.
2. Quit smoking Smoking has been found to directly increase the risk of several diabetes complications such as cardiovascular diseases, stroke, eye diseases, nerve damage, and kidney damage. It has also been found to reduce blood flow to the feet and other body extremities. This can lead to foot problems and slow down the healing of injuries. Irregular blood flow can lead to infections and unwanted mouth ulcers, which puts you at risk of oral health problems. Hence, it is wise to quit smoking to lower your risk of diabetic complications. Talk to your doctor for measures that can help you to quit smoking.

Tobacco is injurious to the health. Say no to tobacco. Try our smoking cessation product range. Check Now Celebs affected Arvind Kejriwal Delhi CM Arvind Kejriwal mentioned on twitter that he also suffers from diabetes and takes insulin to keep his blood glucose level under control. Tom Hanks The Oscar winning Hollywood actor, Tom revealed that he was diagnosed with type 2 diabetes on the American Talk show “The Late Show” in the year 2013 and he always makes sure to follow strict plan to manage diabetes. Specialist To Visit

If you have been experiencing symptoms such as tingling sensation or numbness of the limbs, feeling excessively hungry or thirsty, or unexplained weight loss, then it is wise to consult following specialists: Endocrinologist Diabetologist If you are already diagnosed with diabetes, then getting a regular health check-up is a must. This is because, chronic or uncontrolled diabetes can impact other major organs of the body such as the eyes, legs, nerves, kidneys, and gums. So if you suffer from any complications due to diabetes, then getting in touch with the respective specialist can help you to manage and prevent these problems. Some of the common specialists who can help are: Nephrologist Neurologist Podiatrist Dentist Ophthalmologist Dietician Consult India’s best doctor’s online with a single click. Click here to book an appointment. Consult Now Treatment Of Diabetes

Diabetes can be treated with medications and injections along with few lifestyle modifications. Based on your blood glucose level, your doctor might recommend medicines/injections to control diabetes. Some of the common types of medicines for diabetes include: A. Oral antidiabetics 1. Biguanides This class of drugs help to improve glucose control by suppressing glucose production by the liver, decreasing the absorption of glucose by the intestine and increasing the insulin sensitivity. Metformin is generally the first medication prescribed for type 2 diabetes. 2. Sulphonylureas These drugs are known to increase the secretion of insulin by the pancreas to manage diabetes. Some of the common examples of drugs belonging to this class include: Glimepiride Glipizide

1. Thiazolidinediones This class of drugs helps control diabetes by increasing insulin sensitivity in the muscles and fat tissues. Examples of this class of drugs include: Pioglitazone
2. Meglitinides This class of drugs increases secretion of insulin by the pancreas to treat diabetes. Some of the common examples include: Repaglinide Nateglinide
3. Alpha-glucosidase inhibitors As the name suggests, these drugs inhibit the enzyme alpha glucosidase thereby decreasing the absorption of glucose by the intestine. Some of the commonly available drugs under this class include: Acarbose Miglitol
4. DPP-4 inhibitors This class of drugs works by improving the secretion of insulin by the pancreas thereby helping in the treatment of diabetes. Examples of this class of drugs are: Sitagliptin Saxagliptin
5. Incretin mimetics These oral antidiabetics are known to increase the secretion of the hormone insulin and help in controlling diabetes. Commonly known as glucagon-like peptide 1 (GLP-1) receptor agonists or GLP-1 analogues, this class includes drugs such as: Exenatide Liraglutide Dulaglutide

B. Insulin injections This includes insulin (mainly human insulin) which increases the uptake of glucose by the cells and helps to control diabetes. There are 5 different types of insulin available currently which are recommended based on the severity of the condition. These include: Rapid Acting insulin (Examples: lispro, glulisine, etc) Short Acting insulin (Examples: insulin regular, semilente) Intermediate Acting insulin (Examples: lente, insulin Isophane, etc) Long Acting Insulin (Examples: ultralente, protamine zinc) Ultra-Long Acting Insulin (Examples: glargine, detemir, degludec, etc) Here’s more on how to use insulin injection for diabetes. Click To Read

C. Insulin pumps Insulin pumps are small-sized computer devices which deliver small doses of short acting insulin in a continuous manner, just like how pancreas works. It provides a steady flow through day and night, called as basal insulin, and an extra dose during meals, called as bolus, based on the body’s requirement of insulin. All you need to do is attach it to your body using an infusion set. Talk to your doctor if you want to know more about insulin pumps to manage your diabetes. D. Transplants Some people who have type 1 diabetes, a pancreas transplant may be an option. Islet transplants are being studied as well. With a successful pancreas transplant, you would no longer need insulin therapy. But transplants aren’t always successful and in some cases these may pose serious health risks. E. Bariatric surgery Also known as weight loss surgery, bariatric surgery helps to cut down the fat through surgery. Although it is not specifically considered a treatment for type 2 diabetes, people with type 2 diabetes who are obese and have a body mass index higher than 35 may benefit from this surgery.

Here’s more on what weight loss surgery is and who can go for it. Read To Know Home-care For Diabetes

Diet in diabetes Whether you’re trying to prevent or control diabetes, your nutritional needs are virtually the same as everyone else, so no special foods are necessary. However, certain modifications in terms of quantity and type of food might be required.

1. Eat more Healthy fats from nuts, olive oil, fish oils, flax seeds, or avocados Fruits and vegetables—ideally fresh, the more colorful the better; whole fruit rather than juices High-fiber cereals and breads made from whole grains Fish and shellfish, organic chicken or turkey High-quality protein such as eggs, beans, low-fat dairy, and unsweetened yogurt
2. Eat less Trans fats from partially hydrogenated or deep-fried foods Packaged and fast foods, especially those high in sugar, baked goods, sweets, chips, desserts White bread, sugary cereals, refined pastas or rice Processed meat and red meat Low-fat products that have replaced fat with added sugar, such as fat-free yogurt
3. Choose high-fiber, slow-release carbs Carbohydrates have a big impact on your blood sugar levels—more so than fats and proteins—so you need to be smart about what types of carbs you eat. Limit refined carbohydrates like white bread, pasta, and rice, as well as soda, candy, packaged meals, and snack foods. Focus on high-fiber complex carbohydrates—also known as slow-release carbs. They are digested more slowly, thus preventing your body from producing too much insulin.

Dr. Beena Bansal (MBBS, MD, DM, Endocrinology) tells us about some simple ways to curb our food cravings. Watch the video now!

Fruits in diabetes There is mixed perception about intake of fruits for diabetes. Some people believe that diabetics should completely cut down fruits from their diet while some think that one can include as much fruits as they want in their diet as it doesn’t have any impact on blood glucose level. However, neither is true. It is best to include fruits as an integral part of your daily meal plan while keeping a tab on the carbohydrate content. Here is a quick guide to help you out with your daily needs of fruits:

Whole fruits 1 small apple 1 small chickoo 1 small orange 1 small guava 1 small pear Cut fruits Half banana 1 slice mango 1 cup papaya 3/4th cup muskmelon 1 ¼ cup watermelon Watch the video to know more about which fruits to eat and which fruits to avoid.

Exercise in diabetes Exercises are designed to help people with diabetes avoid problems which can result from unwise exercise choices. Aerobic activity is one of the effective exercise options to control diabetes. When done at moderate intensity it raises your heart rate and makes you sweat thereby helping you to maintain an optimum blood glucose level.

Some of the common forms of aerobic exercises are: Brisk (fast-paced) walking Light jogging Bike riding Playing tennis or badminton Swimming/ water aerobics Gymming Roti Vs Rice: Which is Healthier? Ms. Chhavi Kohli, a well-known diabetes educator, talks about the difference in nutrient content between rice and roti and how diabetic patients can include rice in their daily diet. She also explains about the right amount of rice to be eaten and the health benefits of eating brown rice over white rice. Watch Now Complications Of Diabetes

Insulin deficit, if left unchecked over the long term, can cause damage to many of the body’s organs, leading to disabling and life-threatening health complications such as: 1. Diabetes retinopathy (Eyes): High blood glucose levels shall put you at an increased risk of eye problems such as blurred vision. It can affect the shape of your lens and damage the blood vessels in your eyes. Diabetic retinopathy can also increase the risk of cataract and glaucoma. 2. Diabetic foot (Feet): Diabetes (both type 1 and 2) causes damage to blood vessels and peripheral nerves that can result in problems in the legs and feet. Two main conditions associated with diabetes are peripheral artery disease (PAD) and peripheral neuropathy leading to increased risk of foot problems. PAD means narrowing and hardening of blood vessels whereas peripheral neuropathy refers to damage to the small nerves in feet due to diabetes. In addition to these, diabetic patients may experience varied foot problems like overgrowth in the form of corns, calluses, ulcers, painful events such as bunions and fungal infections. 3. Diabetic nephropathy (Kidneys): Diabetic kidney disease, also known as diabetic nephropathy, is one of the most common complications of diabetes. Excess glucose can cause thickening of blood vessels in the kidneys. It also causes thickening of the filtration units (glomerulus) that affects the normal functioning of the kidneys. Healthy kidneys do not allow excess proteins to pass through the filters. But when the filtration process is impacted, microalbumin, a type of protein, is excreted through urine. This gradually increases the pressure on the kidneys and in the long run leads to chronic kidney disease and kidney failure. 4. Diabetic neuropathy (Nerves): High blood glucose levels can impair the blood flow to the nerves by causing damage to the small blood vessels. As a result, it can cause symptoms such as numbness, decreased sensation and pain in the extremities. Early diagnosis and treatment can help prevent or delay these complications. 5. Atherosclerosis (Blood vessels): High blood glucose levels can cause damage to larger blood vessels of the heart. This not only impairs the blood flow to the heart but can also increase the risk of atherosclerosis, which leads to narrowing of arterial walls throughout the body. This narrowing of arteries can lead to decreased blood flow to the heart muscle (causing a heart attack) or to the brain (leading to stroke), or to extremities (leading to pain and decreased healing of infections). 6. Diabetic ketoacidosis: It is a life-threatening disease in which a person’s cells do not get enough sugar required for energy. As a result, the body starts to break down fats to get the required energy. This causes the production of a compound called ketones which are released in the blood. It occurs when there isn’t enough insulin in the body to use glucose. This is a sign that your diabetes is getting out of control. Although it can happen to anyone with diabetes it is more common in people with type 1 diabetes. 7. Erectile dysfunction (ED): In a person suffering from diabetes, there is a high chance of getting ED around 10-15 years earlier than non-diabetics. This can be attributed to factors such as longer duration of diabetes, old age, poor glycemic control, and neuropathy. It is caused due to hormonal, neurological, vascular and psychological effects of high blood glucose levels on the body. ED can cause an increase in mental stress, lead to disordered interpersonal relationships and interfere with sexual life, thus affecting the overall quality of life in diabetics. Gestational Diabetes Mellitus (GDM) GDM not only imposes immediate risks for both mother and fetus but can also affect the future health of both the mother and child throughout their life. The immediate complications for the mother include: Preeclampsia (characterized by high blood pressure) Need for cesarean sections Polyhydramnios (excessive amniotic fluid) Oligohydramnios (deficiency of amniotic fluid) The health complications in the baby include: Hyperinsulinemia (high insulin level) Macrosomia (the baby who is significantly larger in size than normal) Shoulder dystocia (infant’s shoulder gets lodged in the mother’s pelvis during delivery) Neonatal hypoglycemia (low blood glucose level) Respiratory distress syndrome (immature lungs) Stillbirth Alternative Therapies For Diabetes

Ayurveda The science of Ayurveda manages diabetes through a combination of activities that include exercise (Vyayam), dietary regulation (Pathya), panchakarma (bio-purification) and medicines. It is best to consult an ayurveda consultant before taking any ayurvedic medicine for diabetes. Some household herbs and spices that you can include in your diet include: Powdered Jamun seeds can be taken with water or buttermilk (chaach). Methi (Fenugreek) seeds are taken with water 15-20 minutes before each meal. Methi has soluble fibers that slow down the digestion and absorption of glucose. Bael leaves are squeezed to prepare fresh juice that can be taken along with a pinch of black pepper. Dalchini (Cinnamon) in powdered form can be taken with water as it helps in improving sugar as well as cholesterol level. Concentrated amla juice taken along with bitter gourd juice, helps in releasing more insulin. Karela (Bitter gourd) juice is recommended to be taken every morning. Homeopathy Defined as a complementary medicine, homeopathy majorly concentrates on improving the functioning of the pancreas to produce insulin. Homeopathy experts rely on the patient’s history and temperament to devise a constitutional medication. However, it is recommended to use the homeopathic medicines only if prescribed by the homeopath and that too alongside the usual course of medications suggested. Yoga Yoga asanas help you to ease stressful thoughts and help you to improve mental health in diabetics. Restorative yoga involves yoga poses and healing through relaxation techniques with conscious breathing and power yoga has been found to benefit for losing weight (a risk factor for diabetics). It has been studied for controlling both the symptoms and complications associated with type 2 diabetes mellitus. Acupuncture This technique uses needles to treat chronic pain. Acupuncture may be effective in treating not only diabetes, but also in preventing and managing complications of the disease. Massage therapy Massage therapy could be incorporated into relaxation therapy, but it also serves another purpose that can be particularly useful for diabetics. The extreme stress-reducing benefits of massage can help in controlling the counter-regulatory stress hormones and help the body to use insulin more effectively. Living with Diabetes As diabetes is a chronic health problem, it is imperative to make small changes in your lifestyle to manage the condition in a better way. Here are a few measures to include in your care plan. 1. Learn about the condition It is very important for a person with diabetes to accept it bravely and at the same time be well-informed about the condition. Learn about the symptoms, the risks of potential complications, practical ways to manage diabetes and the importance of treatment. This includes reaching out to your doctor for more information, working out with a nutritionist for a customized meal plan or joining support groups to share your stories and be on top of your game when it comes to diabetes management. 2. Take care of your mental health Stress, anxiety and depression are some of the common mental problems seen in people with diabetes. According to the CDC, diabetics are around 2 to 3 times more likely to suffer from depression than those without diabetes. And most of those with stress, anxiety and depression do not get diagnosed or treated which in turn can hamper their diabetes control and increase the risk of health complications. Hence, it is important to keep a tab on your mental health and look out for any warning signs of depression which include feeling sad, loss of interest, being extremely tired, difficulty in concentrating and being irritable and anxious. If you have any of these symptoms, do consult your doctor immediately for appropriate diagnosis and treatment. Also, keep stress and anxiety at bay with simple tips such as: Indulging in some relaxation techniques like meditation or yoga. Talking to your friends or family about your stress. Trying out a new hobby like gardening, dancing, playing a music instrument, etc. Spending some “ME” time by doing things you like such as reading a book or taking a stroll in a park. 3. Be ready to tackle emergencies Getting sick is a part and parcel of life however, if you suffer from diabetes you need to be extra careful as diabetics are more prone to infections. So it is wise to plan out your sick days beforehand by stocking up on your medicines (including the OTC medications) and healthy foods and drinks. Moreover, as the blood glucose level can be hard to manage when sick, make sure to record your reading daily and take your medicine without fail. There are times when diabetics who are on medicines or take insulin can have low blood glucose levels. Also, skipping meals, eating less or exercising more than usual can lead to a sudden drop in blood sugar level (hypoglycemia). In such cases of diabetic emergencies consult your doctor immediately.

Here’s more on what to eat when the blood sugar dips. Click To Read

1. Diabetes care plan When it comes to diabetes care plan, it can be divided into four key measures which include:
2. Lifestyle tips such as eating a healthy diet and exercising regularly without fail. A diet rich in proteins, complex carbohydrates, healthy fats and fibre is the key to keep your blood glucose levels in control. Ensure to get a minimum of 150 minutes of moderate intensity exercises such as brisk walking per week.
3. Recording and maintaining charts of your blood glucose levels on a daily basis helps you to know how well your treatment is working. Do not skip your medicines or stop taking your medicines even if your diabetes is in control.
4. Self-monitoring of blood glucose (SMBG) is important as it allows you to know your blood glucose level at any time and helps prevent the consequences of very high or very low blood sugar. It also enables tighter blood sugar control, which decreases the long-term risks of diabetic complications. Read more on how to use blood glucose monitors and tips to buy a glucometer.
5. Regular checkups are a must as these help you to understand if you are having trouble meeting your treatment or blood glucose targets. Get HbA1c level every three months along with a doctor visit every six months. Every year do a complete checkup to examine your eye health, lipid profile and kidney health.

Getting a regular health check-up is a good idea to prevent complications due to diabetes. Book a Test Myth: You must avoid sugar at all costs. Fact: You can enjoy your favorite treats as long as you plan properly and limit hidden sugars. Dessert doesn’t have to be off limits, as long as it’s a part of a healthy meal plan. Check out our range of diabetic-friendly health drinks and superfoods. Click Here Frequently Asked Questions Can eating sweets cause diabetes? Is diabetes insipidus same as diabetes mellitus? Do diabetes medicines help lose weight? Can people with diabetes have proteins? How is bitter gourd (karela) juice helpful in diabetes? Are artificial sweeteners good for people with diabetes? What is the best dinner time for people with diabetes? Wheat or jowar roti: what is better for people with diabetes? Can diabetes cause kidney failure? Does eating potatoes cause diabetes? Can diabetes be cured? References IDF DIABETES ATLAS. Ninth edition 2019. International Diabetes Federation (IDF). Understanding A1c Diagnosis. American Diabetes Association (ADA). Varma PP. Prevalence of chronic kidney disease in India - Where are we heading?. Indian J Nephrol. 2015;25(3):133-135. Kharroubi AT, Darwish HM. Diabetes mellitus: The epidemic of the century. World J Diabetes. 2015;6(6):850-867. Maiorino MI, Bellastella G, Esposito K. Diabetes and sexual dysfunction: current perspectives. Diabetes Metab Syndr Obes. 2014;7:95-105 Pandey A, Tripathi P, Pandey R, Srivatava R, Goswami S. Alternative therapies useful in the management of diabetes: A systematic review. J Pharm Bioallied Sci. 2011;3(4):504-512. Prediabetes - Your Chance to Prevent Type 2 Diabetes. Centers For Disease Control and Prevention (CDC). Last reviewed June 2020. Sapra A, Bhandari P. Diabetes Mellitus. [Updated 2021 Jun 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Diabetes, Gum Disease, & Other Dental Problems. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Last reviewed by Sep, 2014.

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Diphtheria Also known as Strangling angel of children Overview Diphtheria is an infectious disease caused by the bacteria Corynebacterium diphtheriae. It is highly contagious and can spread through droplet transmission such as during breathing, coughing, speaking, and even laughing.

The disease is most often associated with a sore throat, fever, and the development of an adherent membrane known as pseudomembrane on the throat. The bacteria also produces exotoxins that can damage the heart, lungs, kidney, and nerves.

Diphtheria was a very common cause of death in children and adolescents in the 1920s. Proper vaccination that starts from infancy has reduced the number of cases to a larger extent.

The main risk factors for developing diphtheria are not being immunized against the disease and other factors like crowding, weak immunity, and direct or indirect contact with an infected individual.

Diagnosis is made by the patient’s history and physical examination. Culture of Corynebacterium from the patient yields a definitive diagnosis although the patient should be treated if diphtheria is even suspected. The treatment of diphtheria includes early administration of antibiotics and diphtheria antitoxin. Key Facts Usually seen in All age groups but more common in children below 12 years of age Gender affected Both men and women Body part(s) involved Mouth Nose Tonsils Larynx Pharynx Throat Skin Heart Nervous system Prevalence Worldwide: 8819 (2017) India: 3485 (2020) Mimicking Conditions Epiglottitis Retropharyngeal Abscess Angioedema Infectious mononucleosis Pharyngitis Oral candidiasis Necessary health tests/imaging Physical examination & medical history Culture test Toxin testing: Elek test, PCR testing & Enzyme immunoassay (EIA) test Blood tests: Complete blood count (CBC), Troponin & Diphtheria antitoxoid antibody Imaging tests: Chest X-ray, neck X ray & Electrocardiography (ECG) Treatment Diphtheria antitoxin Antibiotic: Erythromycin and Penicillin G, Linezolid & Vancomycin See All Symptoms Of Diphtheria

The symptoms of diphtheria depend upon the part of the body affected by the bacteria. It usually infects the respiratory tract and skin involving tonsils, throat, nose, and/or skin. The signs and symptoms can be mild or severe. The incubation period is generally 2 to 5 days. Even asymptomatic patients, if not treated with antibiotics, can pass the infection to another person for up to 4 weeks.

The bacteria attaches to the lining of the respiratory tract and cause symptoms such as: Weakness Sore throat Runny nose Hoarseness Chills Painful swallowing Low grade fever (about 100.4 to 102° F) Generally feeling unwell (malaise) Swollen lymph nodes in the neck Cervical lymphadenopathy (enlargement of lymph nodes in the head and neck) Swelling of the palate (roof of the mouth) Loss of appetite Tiredness/fatigue

In children, symptoms may also include: Rapid heart rate Nausea Vomiting Headache

The bacteria can also affect skin (cutaneous/skin diphtheria) and cause symptoms such as open sores and ulcers. These sores appear on the arms and legs, sometimes resemble other skin conditions such as eczema, psoriasis, and impetigo. The bacteria can also cause painful, red and swollen lesions on the skin. Formation of pseudomembrane The diphtheria bacteria makes a thick and gray coating in the respiratory system near tonsils or other parts of the throat which is called pseudomembrane. The pseudomembrane may narrow and block the airway. It can also paralyze the roof of the mouth. All these manifestations can be experienced in the following symptoms: Difficulty in breathing Difficult in swallowing Gasping sound while inhaling

In severe cases the toxin produced by the bacteria can damage nerves of the face, throat, arms, and legs and cause: Sudden Movements of the eyes, arms and legs Respiratory failure Rapid heart rate Irregular heart rhythm Low blood pressure Myocarditis Heart failure Causes Of Diphtheria

Diphtheria is caused by a bacteria known as Corynebacterium diphtheria which can enter the body through nose, mouth or broken skin. The bacteria produces a toxin that can travel via the bloodstream and lymph vessels. This toxin can damage the heart, kidney, and nervous system. Transmission It is a highly contagious disease and can spread through close contact with the discharge from an infected person’s eyes, nose, throat or skin. It can transmit through: Coughing, sneezing, or speaking via respiratory droplets Touching infected sores or ulcers Touching contaminated clothes or objects through a break in the skin Did you know? Respiratory infections can also spread through frequently touched surfaces. This mode of transmission of infection is called indirect contact transmission and the surfaces are known as fomites. Read in detail how respiratory infections spread through surfaces. Tap To Read! Types Of Diphtheria

There are several types of diphtheria according to the part of the body affected. It can be categorized as: Respiratory diphtheria In this, the bacteria affects the part of the respiratory tract that includes the nose, larynx, and tonsils. It is of following types:

Nasal diphtheria: In this, the pseudomembrane formed by the bacteria appears inside the nostrils. This form is not dangerous as almost no toxins are absorbed from this location. The chances of systemic complications are also rare in nasal diphtheria.

Faucial diphtheria: It is the most common form of diphtheria in which the effect of the toxin is generally limited to the tonsils. People generally recovered well from this form with early treatment.

Nasopharyngeal: As the name suggests, here infection spreads to nose and pharynx. It is the most fatal form of diphtheria as infection can spread to blood. This can lead to septicemia which refers to blood poisoning.

Laryngeal diphtheria: This form of diphtheria can block the airway as infection spreads downward from the nasopharynx to the larynx. Cutaneous diphtheria In this, the skin is affected by the bacteria which can cause symptoms like open sores, lesions and ulcers on the skin. Risk Factors For Diphtheria Diphtheria is a vaccine preventable disease. The complete vaccination provides a good way to prevent diphtheria and decreases the chances of developing it even in the presence of risk factors. The risk of getting diphtheria are high if you: Are not vaccinated Are inadequately vaccinated Are living in temperate region Are exposed to cold environments Are a frequent traveler in the diphtheria contaminated zone Are in close contact with an infected person Have weak immune system Live in unhygienic and crowded condition Travel to particular areas that are known for diphtheria such as South-East Asia, Russia and surrounding countries, Baltic countries and Eastern European countries.

Diphtheria is common in children, however older people with some comorbidities are also at higher risk of developing diphtheria. People with low socioeconomic status also have higher chances of getting this infection. Diagnosis Of Diphtheria Physical examination and medical history Doctors generally decide if the patient has diphtheria by analyzing the symptoms and discussing the medical history including vaccination status and travel history. The throat is specifically examined for gray or green membrane which is a characteristic of diphtheria. The doctor also asks if the patient has come in contact with someone who has had diphtheria. Culture The diagnosis is confirmed by taking a sample and sending it to a laboratory for testing the growth of bacteria. The samples are taken by swabbing the throat and wound in case of skin infection. This procedure takes time so the treatment is usually started after physical examination. Toxin testing The test detects the toxin produced by the bacteria. It helps in the differentiation of toxigenic strain from non-toxigenic variants. This is done through: Elek test PCR testing Enzyme immunoassay (EIA) test Blood tests Complete blood count: It helps to find out the level of infection by assessing several blood parameters.

Understand in detail about complete blood count. Read To Know!

Troponin I: It is a marker of cardiac (heart) injury. This helps in finding out the extent of the damage to the heart.

Diphtheria antitoxoid antibody: This test measures the level of antibodies in the blood. The antibodies can be produced either through vaccination or previous infection. Imaging studies Chest and neck x-ray: These imaging tests are used to detect swelling of the soft tissue structure around the pharynx, epiglottis, and chest.

Electrocardiography (ECG): ECG is done in case of suspected heart disorders. Celebs affected George Washington George Washington, who served as the 1st president of the United States was diagnosed with diphtheria at the age of 15 years. He was successfully treated with early medical intervention. Specialist To Visit

Diphtheria demands immediate medical attention because any delay in treatment can lead to systemic complications. So, it is very necessary to consult the doctor as early as possible to get the best effective treatment and to avoid complications.

You may consult doctors from these specialties such as: General physician ENT specialist Infectious disease specialist Pulmonoligist

In case of heart complications, consult a cardiologist. You may consult a pediatrician in case your child is facing any such issues.

Consult India’s best doctors online from a single click. Consult Now!

Prevention Of Diphtheria Vaccination Diphtheria is a vaccine preventable disease. Before the introduction of the diphtheria vaccine, it was one of the leading causes of hospitalization and death especially in infants and children. Getting adequately vaccinated is the best way to prevent diphtheria. The vaccination also reduces the chances of community spread.

Types of diphtheria vaccines DTaP vaccine is for young children & provides protection from diphtheria, tetanus, and whooping cough DT vaccine protects young children from diphtheria and tetanus Tdap vaccine is for preteens, teens, and adults & provides protection from tetanus, diphtheria, and whooping cough Td vaccine protects preteens, teens, and adults from tetanus and diphtheria

Things to consider before vaccination It is always advisable to tell your doctor if you: are unwell on the day of vaccination have had a serious reaction to any vaccine in the past have had a severe allergy to anything are pregnant

Who should get vaccinated?

Babies and children: Babies and younger children need 3 and 2 shots of DTaP vaccine respectively to get the high protection against diphtheria, tetanus, and whooping cough (pertussis). These shots are given at the following ages: 2 months 4 months 6 months 15 to 18 months 4 to 6 years

Pregnant women: TdaP vaccine is administered in the third trimester of every pregnancy, as part of the combination vaccine for diphtheria, tetanus and whooping cough. This provides protection to the baby for the initial few months.

Read in detail about the benefits of Tdap vaccination in pregnancy. Read in detail!

Preteens and teens: One shot of TdaP is given to the children between the age of 11 to 12 years to boost their immunity.

Adults: Tdap can be given at any age to the adults, if the person has not received it in the past. The shot is followed by either a Td or Tdap every 10 years.

Most people think that vaccines are for adults. However, what many people are unaware of is the fact that an adult also needs to be vaccinated for several diseases. Understand what are the other vaccines needed for adults. Read Now!

The vaccine is also advised for: People who are traveling overseas, who haven’t had a diphtheria vaccine in the past 10 years Laboratory workers who might have contact with the bacteria that causes diphtheria.

Who should not get these vaccines?

Vaccines are generally safe and do not cause any severe reaction. Vaccines are not given in case a child had a: Life-threatening allergic reaction after a dose vaccine Severe allergy to any component of the vaccine

Side effects of vaccination Most people who get any of the diphtheria vaccines will not face any serious side effects. But, in some cases vaccines can cause milder side effects which can be easily managed. Most of the effects usually go away on their own. The common side effects can include: Redness and swelling at the injection site Fever Loss of appetite Tiredness Vomiting Headache Chills Body aches

Managing the side effects All the side effects are usually mild and occur for a short period of time. They generally occur in the first 1-2 days of vaccination and do not require any specific treatment. However, following measures can be taken to reduce that. Consume fluids Avoid overdressing the children Take paracetamol after consulting with doctor if the fever is high or to manage the swelling and pain at the injection site Did you know? Some vaccines are delivered as early as on birth such as BCG, oral polio vaccine or DPT vaccine which can prevent a wide range of diseases such as tuberculosis, hepatitis B, polio, etc. But there are some vaccines that you may not know about that have gained importance over time and that you might want to consider for your kids. Learn in detail about various lesser known vaccines that can benefit your child. Click To Read! Treatment Of Diphtheria

If diphtheria is suspected, the treatment usually begins before the confirmation of laboratory tests to avoid any complications. The symptoms, overall health, and age of the patient is considered before initiating the treatment. The two main treatment options include: Diphtheria antitoxin (DAT) The prompt administration (intravenous or intramuscular) of DAT is the most effective treatment for diphtheria. It aids in the neutralization of the unbound toxin produced by the bacteria in the blood. Antitoxin has no role in neutralizing the already bound toxin. Therefore, it is necessary to administer it as early as possible to avoid complications. Antibiotics The treatment of antibiotics is usually effective before the bacteria starts releasing toxins in the blood. It offers benefits such as: Reduces the amount of toxins released in the blood Fastens the recovery Prevents the spread of infection

The commonly used antibiotics in diphtheria infection are erythromycin and penicillin G. linezolid and vancomycin are also used in case of antibiotic resistance. A full course of antibiotics, as advised by the doctor should be followed by the patient to completely remove the bacteria from the system.

Read 11 valuable tips to be followed while taking antibiotics. Click To Know!

Diphtheria is a severe and a highly infectious disease. Apart from the basic treatment given, the procedure may also include: Hospitalization of the patient Isolation to reduce the transmission Other medicines such as corticosteroids, adrenaline or antihistamines to reduce any severe reaction to the antitoxin given Tracheostomy (surgical insertion of a tube in the windpipe), in case of severe breathing difficulties Surgery to remove the gray membrane in the throat, if necessary Treatment of complications, for example medications to treat myocarditis (inflammation of the heart) Bed rest for about one month or longer, for complete recovery Cleaning sores with soap and water, in case of skin diphtheria Home-care For Diphtheria

Eat soft food diet Diphtheria causes sore throat and difficulty in swallowing. It is better to consume soft foods and liquids. Self isolation Since diphtheria is a highly contagious disease, it is necessary to isolate the patients to reduce the spread of infection. Maintain hygiene Strict hygiene should be maintained by the people who are caring for diphtheria patients. The precautionary measures such as washing hands, particularly before cooking food and handling the patient should be followed. Get vaccinated Vaccination is also necessary for the patient who has recovered from the diphtheria infection because it can occur again also. The care-takers and the people who are in close contact with the patient should also take a booster dose of vaccine. Take sufficient rest The recovery of the patient is generally very slow, especially if the infection was severe. Such people are advised to take proper rest for a couple of weeks. The normal physical exertion may be harmful if the disease has affected the heart. Close contacts get tested The people who are in close contact with the patient should go for the test of diphtheria. The treatment protocol is initiated in these people in case of any suspicion. This is required even in the people who have been vaccinated. Did you know? Diphtheria was a very common cause of death in children and adolescents in the 1920s. The diphtheria vaccine, first used in the United States in the early 1940s, has virtually eliminated the disease. Now very few cases are seen in the world, especially in the developed countries. But, outbreaks still occur around the world with a drop in immunization rates. Alternative Therapies For Diphtheria

Home remedies Diphtheria is a severe respiratory illness. Doctors should be immediately consulted to avoid any life threatening complications. The treatment of diphtheria consists of antibiotics and antitoxin. However, some home remedies can be used as an adjunct to medical treatment. It is also advisable to consult the doctor before starting any home remedies:

Garlic (Lehsun): Chewing a clove of garlic every three to four hours for a week helps to reduce fever associated with diphtheria. It also helps to soothe the throat.

Pineapple: Pineapple juice helps in removing the throat deposits. It contains bromelain that is effective in managing coughing.

Basil leaves (tulsi): The antibacterial property of tulsi helps in reducing respiratory infections. It can be consumed as water infused with basil leaves.

Passion flower: This herb can help to alleviate symptoms of diphtheria. Add a tablespoon of the passion flower powder to a cup of boiling water. Strain and drink it at least twice a day.

Castor leaves: It possesses anti-inflammatory and antimicrobial properties that help to manage the condition. Ground castor leaves can be taken orally. A paste of castor leaves, garlic juice and drumstick leaves can also be inhaled to clear the nasal passage. Complications Of Diphtheria

The pseudomembrane formed by the bacteria separates from the tissues in 7 to 10 days. The toxin produced by the bacteria can reach the heart, kidney, muscles, and liver which can cause various severe complications: Cardiac complications The heart is usually the first organ to be affected. Diphtheria usually affects the heart in the second or third week. The patient can develop: Myocarditis (inflammation of the heart muscle i.e, myocardium) Cardiac arrhythmia (irregular heartbeat) Circulatory collapse Neurological complications The toxin can affect the nerves of the brain, extremities and muscles of the pharynx and soft palate causing: Neuritis (may lead to respiratory failure and pneumonia) Nerve weakness Encephalitis (rare in children) Oculomotor nerve palsy (Involuntary movement of eyeball) Reflux of food through nose Respiratory obstruction In most of the cases, the pseudomembrane blocks the respiratory tract and can cause suffocation. This requires immediate mechanical ventilation and intubation. Kidney damage The toxin released in the blood can also damage the kidney, thereby affecting their ability to filter wastes from the blood. Living With Diphtheria

Here are a few simple tips which could help to deal better with diphtheria infection: Choose food wisely The patients of diphtheria usually find it hard to swallow food due to the development of an artificial membrane in the throat. Liquids and soft food items might help in this condition. The incorporation of healthy foods such as fresh fruits and vegetables in the form of juices and smoothies may also speed up the recovery process.

Foods to be taken Fluids (juices) Milk Garlic Food in semi-solid form (ice creams) Fruits and vegetables

Foods to be avoided Spicy food Saturated oils and trans fats Keep hydrated Drinking enough water especially before bedtime helps in clearing the throat and loosening the mucus. Take plenty of rest Rest plays a very crucial role in complete recovery of the diphtheria patient. Avoid vigorous exercise and take sufficient rest as advised by the doctor. Avoid resuming physical activities early and give the body some time to heal completely from the effects of the bacteria. Sleep the right way The patient should avoid sleeping on the back as it can trigger the accumulation of mucus in the throat. It is advised to use a thick pillow or use two pillows. This helps in elevating the trunk region, thus opening up the airways. Practice Yoga Do some breathing exercises such as pranayama. This will ease the breathing process. Some yoga such as sarvangasana and uttanasana relaxes the body and helps in sound sleep. Frequently Asked Questions How serious is diphtheria? How does diphtheria spread? Can you get diphtheria more than once? Who should get diphtheria vaccines? How many doses of vaccine are needed? How effective are diphtheria vaccines? Which diphtheria vaccine should be given to pregnant women? References Diphtheria, Department Of Health, New York State, Last Updated On: January, 2012. Diphtheria, National Foundation For Infectious Diseases, Last Updated On: April 2021. Diphtheria, Center For Disease Control & Prevention, Last Updated On: 26th May 2020. Diphtheria, Australian Government, Department Of Health, Last Updated On: 16th February 2022. Lamichhane A, Radhakrishnan S. Diphtheria. [Updated 2021 Nov 13]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Diphtheria, Immunization, HHS.gov, Last Updated On: 29th April, 2021. Diphtheria, World Health Organization, Last updated On: 27th November 2017. Diphtheria, History Of Vaccines,The College Of Physicians Of Philadelphia. Last Updated On: 09th April 2022. Diphtheria, Pan American Health Organization, World Health Organization, Last updated On: 27th November 2017. Diphtheria, Health, Johns Hopkins Medicine. Diphtheria, Communicable Disease Service, NJ Health, Department Of Health, State Of New Jersey. Diphtheria, Virginia Department Of Health Last Updated On: October 2018.

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Dizziness Also known as Giddiness, Vertigo, Faintness, Lightheadedness, Unsteadiness, Dysequilibrium and Wooziness Overview Dizziness is a sensation of feeling off-balance, lightheaded, or giddy. Dizziness is not a disease but rather a symptom of various disorders. Most cases of dizziness are mild and occur as a one-and-off episode. Occasional dizziness is not something to worry about.

However, dizziness can be accompanied by nausea, vomiting, headaches, weakness in the hands or legs, shortness of breath, and difficulty in speech. If dizziness is persistent for a prolonged period and interferes with the quality of life, it is essential to seek medical care.

The cause for dizziness must be investigated in such cases as it can sometimes be an underlying symptom of some other medical condition. The aim of the treatment is to treat the underlying cause. Key Facts Usually seen in Adults above 65 years of age Gender affected Both men and women but more common in women Body part(s) involved Brain Ear Necessary health tests/imaging Blood tests: Complete blood count (CBC), Blood sugar tests, Electrolyte levels, Thyroid tests & Kidney function tests Cardiac tests: Electrocardiography (ECG) & Echocardiography (Echo) Imaging studies: CT Scan (head), CT neck plain & MRI brain Balance tests: Rotary chair test, Vestibular evoked myogenic potentials (VEMP) test & Electronystagmography (ENG)

Treatment Betahistine Antiemetics: Promethazine & Ondansteron Antibiotics Vestibular suppressants: Antihistamines, Benzodiazepines & Anticholinergic drugs Electrolytes/glucose drinks Iron supplements

Specialists to consult ENT surgeon Neurologist Endocrinologist Cardiologist Symptoms of Dizziness

A person may be suspected to have dizziness if they suffer from the following: Giddiness, lightheadedness, or feeling faint. A sensation of abnormal swaying such as feeling of moving from side to side. A sensation where the person feels he/she is spinning or the world around him/her is spinning. A feeling of imbalance or loss of balance. A sensation of nausea (may or may not be accompanied by vomiting). Types of Dizziness

Dizziness can be classified into four subtypes: Vertigo: The patient may feel as if he/she is spinning or the surroundings are spinning. Lightheadedness: This is a vague sensation in the head where the patient may feel that his head is floating or feels giddy. Disequilibrium: This is a disturbance in the balance or coordination. It may affect the patient’s normal way of walking. Pre-syncope: This occurs when the patient feels like he/she will lose consciousness.

Causes Of Dizziness Dizziness is a symptom that occurs in many diseases and may be caused due to many underlying disorders. It is important to correctly differentiate and determine the cause for dizziness as treatment varies with each cause.

A. Problems with the ear and vestibular system The ear is the organ responsible for maintaining normal balance and equilibrium of the body. Problems in the ear and vestibular system can lead to vertigo, a type of dizziness. Multiple conditions can be associated with vertigo such as:

1. Benign paroxysmal positional vertigo (BPPV) Benign: not dangerous to health Paroxysmal: presents as a sudden, brief episode Positional: set off by particular head or bodily movements Vertigo: an internal sense of irregular or spinning movement either of oneself or of the surroundings BPPV is the most common cause of vertigo. It is a harmless condition that presents as mild to intense dizziness lasting for a few seconds or minutes. It is often associated with a sudden change in the position of the head or body, like bending over, turning in bed, or sitting up. BPPV usually resolves on its own and is not serious.

The inner ear is a system of canals filled with fluid that lets the brain know about movements of the head. In BPPV, small calcium crystals in the inner ear move out of place. Hence, the system is not able to send the correct signals to the brain.

BPPV can happen because of a head injury or aging as well. The natural breakdown of cells that happens with age or during injury is thought to be responsible for this.

1. Meniere’s disease This is a rare condition that causes severe vertigo, nausea, ringing in the ears, muffled or distorted hearing, hearing loss, and feeling of a plugged ear. This condition is characterized by excess fluid buildup in the inner ear. Meniere’s attacks usually happen suddenly and can last from 20 minutes to 24 hours. Patients also feel worn out after the attack passes.
2. Ear infections Viral and less commonly bacterial infections can cause inflammation of the nerves in the ears. The vestibulocochlear nerve, a nerve in the inner ear, has two branches: The vestibular nerve sends signals to the brain about balance. Its inflammation leads to vestibular neuritis. The cochlear nerve sends signals about hearing. Its inflammation causes labyrinthitis. This inflammation hinders the messages the nerves of the ear take to the brain. Hence, the symptoms of vertigo are experienced.
3. Acoustic neuroma (vestibular schwannoma) It is a benign tumor that develops on the vestibular or cochlear nerves leading from the inner ear to the brain. The pressure on the nerve from the tumor may cause vertigo.
4. Vestibular migraine Migraines are often characterized by painful headaches, however vestibular migraine may or may not involve headaches along with vestibular symptoms such as vertigo and imbalance. People with vestibular migraine do report common migraine symptoms such as sensitivity to light & sound.

B. Problems with blood circulation

1. Hypotension or low blood pressure Dizziness is commonly seen in people who have low blood pressure. Due to low blood pressure, enough oxygen-rich blood is not delivered to the brain, thereby affecting its function. This can lead to dizziness. Some of the common causes for low blood pressure are: Dehydration or loss of water during extreme summers, heat cramps, heat exhaustion, or heat stroke. Dehydration often occurs along with vomiting and diarrhea as well. Fever can also cause a remarkable loss of water due to elevated metabolic rate and profuse sweating when the body tries to cool itself. Anemia due to decreased production or increased destruction of red blood cells Bleeding that may cause loss of red blood cells and lead to anemia Alcohol use Pregnancy
2. Postural hypotension (orthostatic hypotension) If someone is dehydrated or anemic, blood pressure readings may be normal when they are lying down. However, when they sit up or stand up too quickly they may experience a brief feeling of lightheadedness. This feeling may go away in a few seconds as the body adapts. If dehydration or medications like beta blockers prevent the body from reacting, the dizziness may continue to the point at which the patient faints.
3. Heart diseases Conditions such as cardiomyopathy, heart attack, heart arrhythmia, and transient ischemic attack could cause dizziness.

C. Endocrine diseases

1. Diabetes Uncontrolled diabetes is one of the main diseases that may cause dizziness. Hypoglycemia or low blood sugar can occur because of reduced food intake, or from overmedicating with diabetes medication. In this situation, the person experiences dizziness because the brain doesn’t get enough glucose to function properly. Hyperglycemia or high blood sugar levels may also cause dizziness due to dehydration. This happens due to lack of sufficient insulin to allow cells to use glucose for energy metabolism.
2. Thyroid diseases Abnormalities of the thyroid may also cause dizziness as a symptom. Hyperthyroidism or high levels of thyroid hormone may cause palpitations and lightheadedness. Hypothyroidism or low levels of thyroid hormone may lower blood pressure and heart rate leading to dizziness and weakness.
3. Addison’s disease Addison’s disease is a condition in which the adrenal glands do not produce enough cortisol to meet the demands of the body. If cortisol levels are low, a patient may experience weakness, low blood sugar, low blood pressure, and dizziness.

D. Other causes

1. Neurological conditions Rarely, the cause of vertigo may arise from the brain. Stroke, tumors, seizures, peripheral neuropathy, Parkinson’s disease, and multiple sclerosis may be associated with vertigo.
2. Trauma Concussion and minor head trauma can also cause vertigo.
3. Certain medicines Dizziness can be a side effect of certain medications such as antibiotics like gentamicin and streptomycin, anti-seizure drugs, antidepressants, sedatives, tranquilizers, antihypertensive drugs like beta blockers, diuretics, ACE inhibitors & medications for erectile dysfunction.
4. Psychological disorders Stress, anxiety, panic attacks, and depression can also cause dizziness, when you hyperventilate or breathe too quickly.
5. Carbon monoxide poisoning Symptoms of carbon monoxide poisoning may include nausea, vomiting, shortness of breath, dizziness, weakness, and confusion. Is dizziness felt during COVID-19 infection? Dizziness is one of the main neurological symptoms of COVID-19. It is also seen in long COVID-19 that persists weeks or months after the initial coronavirus infection. Dizziness can occasionally occur post COVID-19 vaccination as well. It is most common in the first 15 to 30 minutes of vaccination. However, more research is required to prove this relationship. Read More About COVID-19 Risk Factors For Dizziness

Dizziness can happen to anyone at any point in time in their life. It may occur as a one-time, brief episode, or it may be long lasting with intermittent periods of symptoms. It is estimated that most people over the age of 40 might have experienced dizziness at least once in their lifetime.

Certain factors can increase the chance of dizziness such as: Old age especially people over 65 Being a woman A medical history of past episodes of dizziness Having a family member who has vertigo Hyperlipidemia Vitamin D deficiency

Anemia is one of the causes of dizziness. Here are a few simple tips to increase hemoglobin levels in blood & prevent anemia. Click To Read! Diagnosis Of Dizziness

If a patient presents with symptoms of dizziness, a thorough history and detailed physical examination are key to diagnosis. Aggravating and relieving factors of dizziness along with other associated symptoms are assessed. Review of the past medical history and current medications the patient is taking is also done.

1. Blood tests The requirement for blood tests depends on the cause of the dizziness. Common tests that are done are: Complete blood count (CBC) Blood sugar tests Electrolyte levels Thyroid tests Kidney function tests
2. Cardiac tests Sometimes cardiac health needs to be assessed using the following tests to rule out any heart diseases that can cause dizziness: Electrocardiography (ECG) Echocardiography (Echo)
3. Imaging studies Radio imaging tests may be performed to determine the cause of dizziness. The cause of such dizziness could be inner ear disturbances or other head and neck conditions, like cervical spondylosis, brain tumor, an insufficient blood supply to the brain. Some of the common tests that are recommended include: CT scan (head) CT neck plain MRI brain MRI brain with contrast MRI cervical spine
4. Balance tests These tests check for balance disorders by evaluating how the body responds to changes in posture. Vestibular system which is located in the inner ear along with the central nervous system is responsible for maintaining body balance. The following tests can be done to evaluate the functioning of these systems:

Rotary chair test This test records eye movements while the patient is sitting on a rotational computerized chair. The test evaluates the vestibular system which regulates balance, posture, and the body’s orientation in space.

Computerized dynamic posturography (CDP) This test is also called test of balance (TOB). It evaluates the ability to remain standing in either stationary or moving conditions.

Vestibular evoked myogenic potentials (VEMP) test This test assesses vestibular function by measuring the reaction of muscles to a repetitive sound stimulus.

Video head impulse test (vHIT) The doctor will gently move the patient’s head to each side. Eye movements are recorded while the patient focuses on a stationary object like a spot on the wall.

Vestibular test battery A vestibular test battery includes several tests that will assess if vertigo is due to problems in the inner ear or due to some neurological cause. This helps in making an appropriate treatment plan.

Electronystagmography (ENG) and videonystagmography (VNG) tests These tests record and measure the eye movements. In ENG, electrodes or small sensors are placed over the skin around the eyes. In VNG, special goggles are placed on the eyes. Patient is asked to look at and follow patterns of light on a screen. Patient is asked to move into different positions while watching the light pattern. Then warm and cool water or air will be put in each ear. This should cause the eyes to move in specific ways. If the eyes don’t respond, it indicates damage to the nerves of the inner ear. Prevention Of Dizziness

Dizziness may be caused due to a disturbance in the equilibrium mechanism regulated by the inner ear. It may also occur due to other head and neck conditions that affect balance or due to problems with nutrition and blood circulation. It is possible to prevent these spells of dizziness by avoiding certain activities like: Avoid sudden movements of your head from one position to another, or stand up suddenly after lying down for a prolonged period. Do not insert sharp objects or foreign matter deep into your ears for cleaning purposes, as it may damage the inner ear. Always monitor your blood sugar levels closely if you are a diabetic on insulin therapy. Drink plenty of water to avoid dehydration, especially in the summer season. Closely monitor your blood pressure levels. Certain medications may trigger spells of dizziness. In such cases, consult your doctor to make the necessary adjustments. Specialist To Visit

Most cases of dizziness are mild and occur as a one-off episode. Such patients do not need to visit any doctor as the dizziness may often resolve on its own. However, if dizziness continues for a longer period of time and interferes with the ability to live a normal life, consult the doctor. Also, it is important to seek medical care if your dizziness is accompanied by nausea, vomiting, headaches, weakness in the hands or legs, difficulty in speech, or hearing loss.

The specialist doctors who can diagnose and treat dizziness depending on the cause are: ENT surgeon Neurologist Endocrinologist Cardiologist If you are facing such an issue, seek advice from our professionals. Consult Now!

Treatment Of Dizziness

Often, episodes of dizziness are mild and do not require any treatment as they resolve on their own. The treatment for dizziness is necessary when the episodes do not go away or are so severe that they interfere with a patient’s day-to-day activities. The treatment for dizziness depends on the cause and severity of symptoms. Here are some medicines which are generally suggested:

A. Dizziness due to vertigo

1. Betahistine Betahistine is used to treat vertigo caused due to Meniere’s disease (a disorder of the inner ear that can lead to dizzy spells and hearing loss). It works by improving the blood flow in the inner ear and reduces the pressure of the excess fluid that causes the symptoms of vertigo
2. Antiemetics This is a class of medicine that helps ease the symptoms of nausea and vomiting, frequently associated with vertigo. Medicines that are effective against nausea and vomiting associated with vertigo are: Promethazine Ondansteron
3. Antibiotics If the cause for vertigo is a middle or inner ear infection, then it must be treated with antibiotics to resolve the infection. Oral antibiotics and ear drops help fight bacterial infections of the ear, reducing the inflammation that causes vertigo.
4. Vestibular suppressants These are medications that reduce the intensity of vertigo that occurs due to vestibular imbalance. There are three main categories of drugs:  
   Antihistamines are the most commonly prescribed medicines which help relief symptoms such as dizziness & prevent motion sickness Benzodiazepines like clonazepam and lorazepam are anti-anxiety medications that can also act as vestibular suppressants in low doses and help reduce the symptoms of an acute vertigo episode. These medicines are not routinely prescribed and their use is restricted to acute severe episodes of vertigo or to manage anxiety associated with vertigo. Anticholinergic drugs like scopolamine help with dizziness and motion sickness.

B. Dizziness due to problems with nutrition

1. Electrolytes/glucose drinks When the person starts feeling dizzy, in addition to the symptoms of cold extremities and profuse sweating, it may be due to reduced blood glucose levels or dehydration. In such situations, it is important to immediately offer the patient a rapid source of glucose and electrolytes.
2. Iron supplements Correcting iron deficiency with iron supplements helps improve dizziness caused by anemia.
3. Medications as per diseases Dizziness due to various conditions can be corrected by getting appropriate treatment for them.

If your blood glucose levels are below the normal range, then, is eating a piece of chocolate sufficient to increase the blood glucose level? Read Now!

Home-care For Dizziness

A one-off episode of dizziness does not require any special care. However, if these episodes are severe and frequent, the patient needs to take utmost care. Some tips to circumvent dizziness are: Avoid sudden, jerky movements of the head and neck. When you feel dizzy, stop what you are doing immediately and sit down until it passes. Lie down flat immediately when symptoms occur. This will allow blood to reach your brain quickly. Rest as much as possible. Change positions slowly, especially when you are standing up after lying down. Try to sit for a couple of minutes before standing up. Drink plenty of water. Make sure you drink enough fluid, at least 8 glasses of water every day, unless advised otherwise by your doctor. Take a healthy balanced diet comprising all the essential nutrients. Closely monitor blood sugar levels in case of diabetes and if on insulin therapy. Monitor blood pressure levels regularly. Do not engage in activities that involve speedy movements such as driving or joy rides. Avoid standing at high places or climbing a ladder. Avoid wearing high-heeled shoes as well. Use walking aids such as a cane or walking stick, in case of severe dizziness and increased risk of falling. Hold onto the railing when going up and down stairs. Avoid driving or operating equipment or machinery while you feel dizzy as this could be dangerous to yourself and others. Install hand grips in bathrooms and showers. Remove clutter from the floor like rugs, loose electrical wires, etc. Complications Of Dizziness

If dizziness is left untreated, the underlying cause may worsen and lead to several complications such as: Increased falls due to loss of balance Accidents may occur, if the patient feels dizzy while driving or operating heavy machinery Loss of consciousness or fainting Hypotensive shock, if dizziness is due to extremely low blood pressure Ischemic stroke, if dizziness is due to poor blood supply to the brain Alternative Therapies For Dizziness Some forms of dizziness such as vertigo, can benefit from alternative therapies such as:

1. Physiotherapy Vestibular rehabilitation and balance training exercises, such as standing on a bosu ball or a tilt board, walking in S shape, standing with eyes closed, etc. are a specific set of exercises that can help improve balance. These can help decrease the chances of falls and dizziness.
2. Homeopathy Homeopathic preparations such as byronia, cocculus indicus, etc., have shown that homeopathy is as effective as conventional medications in controlling the symptoms of vertigo.
3. Canalith repositioning maneuver The canalith repositioning procedure can help relieve benign paroxysmal positional vertigo (BPPV). The doctor may guide you to perform simple head exercises called the Epley maneuver or canalith repositioning procedure (CRP). These help to get the dislodged calcium crystals back to their proper position. They are highly effective and most people feel better after one or three treatment sessions. Living With Dizziness

Dizziness can affect the quality of life as it often imposes certain restrictions on an individual’s lifestyle. As dizziness may be aggravated by sudden rapid movements of the head, a person with dizziness may not be able to enjoy adventure activities like joyrides. One may face aggravated motion sickness that may hinder traveling as well.

Patients with other underlying health conditions such as low blood sugar, low blood pressure, anemia & neurological disorders, often face a lack of productivity due to the symptoms of dizziness and fatigue.

Severe forms of dizziness that impair balance may lead to increased chances of falls and the complications arising out of falls. Patients with dizziness should not drive a car or operate heavy machinery to avoid any mishap. Frequently Asked Questions What is the difference between dizziness and vertigo? How long does dizziness last? What is a quick way to relieve dizziness? Can improper posture cause dizziness? Can a person have dizzy spells all of a sudden? References Diagnosis and Treatment of Vertigo and Dizziness. Michael Strupp et al. Dtsch Arztebl Int. 2008 Mar; 105(10): 173–180. Chapter 212 Dizziness. Brendan M Reily. Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Point prevalence of vertigo and dizziness in a sample of 2672 subjects and correlation with headaches. R Teggi et al. Acta Otorhinolaryngol Ital. 2016 Jun; 36(3): 215–219. Warning Signs and Symptoms of Heat-Related Illness. The Centers for Disease Prevention and Control (CDC)

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Down syndrome Also known as Down’s Syndrome, Trisomy 21, Mongolism Overview Down syndrome is one of the most common genetic disorders seen in children. It occurs when the child is born with an extra chromosome. Chromosomes are thread-like structures found in every cell of the body. They carry hereditary information in the form of genetic codes. The presence of an extra chromosome in a child can affect the development of the baby’s body and brain, leading to birth defects, learning problems, and abnormal facial features. The risk of a baby being born with Down syndrome is slightly high in women who conceive at or after 35 years. A 35-year-old woman has a 1 in 350 chance of conceiving a baby with Down syndrome. Routine antenatal (pregnancy-related) screening tests can help detect the condition early in the pregnancy (first trimester). Down syndrome is a lifelong condition. Currently, there are no approved medicines available for its treatment. Medical treatment is driven symptomatically based on the comorbidities affecting the individual. This helps to improve the quality of life and also helps increase life expectancy of the person. Key Facts Usually seen in Children below 6 months of age Gender affected Both men and women Body part(s) involved Heart Large intestine Small intestine Bones Joints Eyes Ears Blood Prevalence Worldwide: 1 in 1000 babies (2015) Mimicking Conditions Congenital hypothyroidism Trisomy 18 Partial Trisomy 21 (or 21q duplication) Necessary health tests/imaging USG Foetal Well Being (7-10 weeks) Antenatal Profile Comprehensive Chromosome Analysis, Chorionic villus Echocardiography Thyroid Profile Total Vitamin D (25-OH) USG Whole Abdomen Complete Blood Count (CBC) Amniocentesis Specialists to consult Child Specialist Pediatric Cardiologist Pediatric Neurologist Bone & Joint Specialist Gastroenterologist Genetic Counsellor Physiotherapist Occupational Therapist See All Causes Of Down syndrome

It is caused due to a gene mutation in a chromosome. Both mother and father contribute one each to form a single pair of chromosomes in a child, which creates the unique genetic code of a child. However, due to certain maternal or environmental factors, chromosomes may mutate and the baby can be born with an extra copy of chromosome 21.

Chromosomes are a bundle of genes which are inherited by the child from its parents. Chromosomes come in pairs, and our body needs just the right number of pairs for the development of the body. There are 23 pairs of chromosomes in all healthy individuals. It is due to this extra copy of chromosome 21 that a child develops the characteristic physical and developmental problems associated with Down syndrome. Types Of Down syndrome

There are three different types of Down syndrome:

1. Trisomy In trisomy type, every cell in the body has three copies of chromosome no. 21 instead of two. This is the most common type of Down syndrome.
2. Translocation In the translocation type, each cell has a part or entire extra chromosome 21 which is attached to other chromosomes.
3. Mosaic In this type, only some of the cells have an extra chromosome 21. This is a rare type. Symptoms Of Down syndrome

Usually, Down syndrome in a baby is identified prenatally (while the baby is in the womb) through pregnancy screening tests. It is also possible that the doctor may suspect a case of Down syndrome at birth or during follow-up visits due to the characteristic physical appearance that occurs with the condition.

1. Characteristic physical appearance Individuals who have Down syndrome have distinct facial features, such as: A flattened face with a protruding tongue (tongue sticking out of the mouth) A small head and a short neck Upward slanting eyelids and tiny white spots on the colored part (iris) of the eye Unusually shaped small ears Other characteristic physical appearances include - Short stature Broad, small hands and tiny fingers with a single crease in the palm Excessive flexibility Poor muscle tone Along with the myriad of characteristic physical appearances, children with Down syndrome also suffer from intellectual and developmental disabilities and may develop other health-related comorbidities.
2. Intellectual disabilities Most children with Down syndrome have impaired cognitive function, reduced intelligence, poor memory, and language difficulties.
3. Developmental disabilities Children with Down syndrome often face difficulty in attaining physical and developmental milestones, such as crawling, learning to walk, holding objects, etc.
4. Cardiac abnormalities Congenital heart defects, such as atrioventricular septal defect and Fallot’s tetralogy, are highly prevalent in babies with Down syndrome. These defects can be a significant cause of morbidity and mortality.
5. Gastrointestinal tract abnormalities Babies born with Down syndrome are more prone to structural abnormalities of the intestine, such as intestinal obstruction, and associated diseases such as GERD (gastroesophageal reflux disease).
6. Hematologic abnormalities Newborn babies with Down syndrome have abnormal blood counts within the first few months of life. However, such conditions are not very severe and resolve within 3-4 weeks of life. Patients with Down syndrome have a 10-fold higher risk of developing leukemia.
7. Neurologic abnormalities Reduced muscle tone is a characteristic neurologic abnormality of patients with Down syndrome. They are also more prone to seizures and early-onset Alzheimer’s disease.
8. Hormonal imbalance Hypothyroidism is common in patients with Down syndrome. It may cause delay in the onset of puberty. Sexual development with age may also get affected or delayed in children with this condition.
9. Vision abnormalities Changes in the eye and vision, such as refractive errors, cataracts, retinal anomalies, are very common in children with Down syndrome. Risk Factors For Down Syndrome

The risk of a baby being born with Down syndrome is comparatively high: In women who conceive at or after 35 years of age. The chance of conceiving a baby with Down syndrome is 1 in 350 for a woman of age 35 years. The risk may increase with the increase in the age of the mother. With increasing father’s age. There is also a rare possibility that a parent may be a carrier of the gene and pass it to their offspring. This condition is known as translocation Down syndrome. In parents who already have one child with Down syndrome. They may be at a greater risk of having more children with the same condition. If someone in the close family has Down syndrome. Myth: People with Down syndrome do not live very long. Fact: Although there is no cure for Down syndrome, treatment such as physical, occupational, and speech therapy may help his or her development. Today, people with Down syndrome can look forward to a long life given the right medical attention. Also, with help and support from friends and family, lots of adults with this syndrome are leading an active and fairly independent life. Get Expert Help Diagnosis Of Down Syndrome

Broadly, there are two types of tests to check for Down syndrome - Screening Tests and Diagnostic Tests.

1. Screening tests These are often a combination of blood tests and ultrasound performed to determine the risk of a baby being born with Down syndrome. USG Foetal Well Being (7-10 weeks) - This can help identify any uneven or abnormal structural changes in the fetus, which are characteristic features to identify Down syndrome. The ultrasound is usually performed during the first trimester. Antenatal Profile Comprehensive - This includes a set of routine blood tests that measure various parameters and, when used along with ultrasound imaging, can help screen for fetal abnormalities.
2. Diagnostic tests If any abnormalities are found in the pregnancy screening tests, diagnostic tests are performed to confirm the diagnosis of Down syndrome. Chromosome Analysis, Chorionic villus - In this test, cells are taken from the placenta and used to analyze the fetal chromosomes. The presence of an extra chromosome 21 confirms the diagnosis of Down syndrome. Amniocentesis - During the second trimester of pregnancy, the analysis of fluid obtained from the amniotic sac surrounding the baby can help identify the possibility of a child being born with Down syndrome.
3. Supportive tests There are numerous comorbidities that can affect a person with Down syndrome. A few tests are essential to help evaluate these comorbidities. Echocardiography - to detect congenital cardiac abnormalities, which are very common in babies with Down syndrome. Thyroid Profile Total- quite often it is seen that individuals who have Down syndrome also suffer from hypothyroidism. It is essential to diagnose the possibility of hypothyroidism and treat it. Vitamin D (25-OH) - the musculoskeletal system of patients with Down syndrome is weak and poorly developed. The patient may also suffer from Vitamin D deficiency. USG Whole Abdomen - some patients with Down syndrome suffer from gastrointestinal issues like intestinal obstruction, perforation, or GERD. If the patient exhibits any such symptoms, it is essential to evaluate the cause using ultrasound of the whole abdomen. Complete Blood Count (CBC) - in the early weeks of life, newborn babies with Down syndrome suffer from impaired blood counts. Individuals with Down syndrome are also more prone to develop leukemia. Hence, routine CBC tests can help identify any blood-related abnormalities in time. BOOK TESTS HERE Prevention Of Down Syndrome

As such, there is no way to prevent Down syndrome. However, early conception before the age of 35 reduces the risk of a baby being born with this condition. Genetic counseling may help the cases where the risk of a baby being born with this syndrome is high.

Routine antenatal proffile (pregnancy-related) screening tests help identify the condition as early as the first trimester of pregnancy. Awareness regarding antenatal tests can help parents make informed decisions about the pregnancy and its complications. Specialist To Visit

Usually, Down syndrome is detected during pregnancy by an obstetrician or at birth by a neonatologist. Sometimes, the diagnosis may not be picked up early and the child may be diagnosed with Down syndrome during routine visits to the physician. Usually, a child with Down syndrome will be cared for by a team of expert doctors. These doctors include: Child Specialist Pediatric Cardiologist Pediatric Neurologist Bone & Joint Specialist Gastroenterologist Genetic Counsellor Physiotherapist

Consult India’s best doctor online with a single click. CONSULT NOW Treatment Of Down Syndrome

Currently, there are no approved medicine therapies for the treatment of Down syndrome. Medical treatment is driven symptomatically based on the comorbidities affecting the individual. For example thyroid medications to control Hypothyroidism, Vitamin D supplements for Vitamin D deficiency, analgesics to provide pain relief, corrective surgery for congenital heart defects and intestinal defects, etc.

1. Alternative therapies These form the most important part of managing Down syndrome. As the disease is congenital and impairs the person’s intellectual and developmental abilities, it is essential that supportive care for the child begins as soon as possible. This will help the child lead a fairly normal, productive life.
2. Physiotherapy and occupational therapy Physiotherapy and occupational therapy help the child achieve developmental milestones, like walking, hand gripping, balancing, etc., through customized exercise programs. These exercise programs can also help care for the bones & joints and prevent worsening of the musculoskeletal system.
3. Speech therapy Speech therapy and voice modulation exercises are essential as they help the child communicate effectively. Learning to communicate well is a very important aspect of the social development of a child suffering from Down syndrome.
4. Life skills training A child with Down syndrome often needs specialized life skills training in sync with his or her level of functioning. There are support groups and special schools available to help the child learn essential life skills, such as self-care and grooming, primary education, decision-making, etc. This helps the child grow into a somewhat normal-functioning adult who can lead a productive life. Home-care For Down Syndrome

Educating oneself regarding the symptoms and disease progression of Down syndrome is essential for the parent or caregivers. A child with Down syndrome will require treatment with a multidisciplinary approach that improves their physical and intellectual capabilities.

Children with Down syndrome often need special attention at school. There are special classes and programs available for children and adults with Down syndrome. Also, close monitoring for comorbidities, such as cardiac complications, vision abnormalities, gastrointestinal problems, bone and joint pains, etc., need to be addressed as and when they start affecting the individual.

With good treatment opportunities, patients with Down syndrome can lead fairly normal lives with improved life expectancy. Complications Of Down Syndrome

Down syndrome often presents with a host of other health conditions and, if left untreated, may pose a serious health risk. Certain complications may arise when Down syndrome is left untreated such as: The inability of the child to function normally in the community Cardiac complications, a consequence of congenital heart defects, often present in a child with Down syndrome Weakened immune system, leading to a higher risk of serious infections Obesity due to lack of physical activity Sleep apnea, a breathing disorder that occurs while sleeping Skeletal malformations Poor vision and hearing Seizures Living With Down Syndrome

Infants born with Down syndrome are often subjected to social stigmas at a very early age. They may not be able to attend normal schooling or grow up like a regular child. Parents or caregivers need to provide special care and attention as the child grows. Most kids with Down syndrome could grow like normal kids due to the advent of numerous advances in physiotherapy, occupational therapy, and other supportive treatments.

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Frequently Asked Questions I am 36 years old and thinking of starting a family. Will my child be born with Down syndrome? My child has Down syndrome. Will he be able to lead a normal life in the future? Can a child with Down syndrome participate in extracurricular activities? References Down’s Syndrome. Faisal Akhthar, Syed Rizwan A. Bokhari. StatPearls Publishing. Jan 2021. Facts about Down’s Syndrome. Centers for Disease Control and Prevention. Down Syndrome: From Understanding the Neurobiology to Therapy. Kathleen Gardiner et al. J Neurosci. 2010 Nov 10; 30(45): 14943–14945. What is Down’s Syndrome? National Health Service UK. Fisch H, Hyun G, Golden R, Hensle TW, Olsson CA, Liberson GL. The influence of paternal age on down syndrome. J Urol. 2003 Jun;169(6):2275-8. / Asim A, Kumar A, Muthuswamy S, Jain S, Agarwal S. “Down syndrome: an insight of the disease”. J Biomed Sci. 2015;22(1):41.

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Ear pain Also known as Otalgia and Earache Overview Ear pain or earache can occur due to infections and inflammation of the external, middle, or inner ear. Earaches usually occur in children, but they can occur in adults as well. An ear pain may affect one or both ears, but the majority of the time it’s in one ear.

The ear pain can be constant or it can come and go, the pain can be dull, sharp, or burning. The symptoms of ear pain include pain in the ear, impaired hearing, and fluid discharge from the ear. Children can show additional symptoms like muffled hearing, fever, difficulty sleeping, headache, getting irritated more than usual, and loss of balance.

Some of the common causes of ear pain include injury, infection, irritation in the ear, or pain that originates in the jaw or teeth, earwax buildup, water trapped in the ear, and sinus infection.

The treatment of ear pain includes taking over-the-counter pain relievers to treat the ear pain and antibiotics, in case of an infection. Also, not getting the ear wet and sitting upright can help relieve ear pressure and pain. Key Facts Usually seen in Children below 3 years of age Gender affected Both men and women Body part(s) involved Ear Prevalence Worldwide: 709 million (2012) Mimicking Conditions Sinusitis Tooth infection Ear barotrauma TMJ syndrome Arthritis of jaw Trigeminal neuralgia Necessary health tests/imaging Blood tests: White blood cell count (WBC), Erythrocyte sedimentation rate (ESR) & C- reactive protein (CRP) Imaging: X-ray, Computed tomography (CT) scan & Magnetic resonance imaging (MRI) Treatment Medications: Amoxicillin, Ibuprofen, Acetic acid & Benzocaine Surgical procedures: Myringotomy & Ear tubes See All Symptoms Of Ear Pain

Ear pain is most commonly described as a feeling of pressure in the ear. This feeling may begin gradually or suddenly, and it can be very severe.

The symptoms of ear pain in adults include: Hearing loss Fever Fluid drainage from the ear Ringing of the ear Vertigo In young children, the signs of an ear infection may be the following: Fever Irritability Pulling of the ear Loss of appetite Difficulty in sleeping Difficulty in responding to sounds Fussiness and crying Loss of balance Causes Of Ear Pain

Injury, infection, and irritation in the ear are the common causes of ear pain.

1. Ear infection It is usually caused by bacteria and often begins after a child has a sore throat, cold, or other upper respiratory infection. The ear has three major parts – the outer ear, the middle ear, and the inner ear. If the upper respiratory infection is bacterial, the same bacteria may spread to the middle ear and if the upper respiratory infection is caused by a virus, such as a cold, bacteria may move into the middle ear as a secondary infection. Outer ear infection: The outer ear, also called the pinna, includes everything we see on the outside; it is the curved flap of the ear leading down to the earlobe. The outer ear infection is caused by swimming, wearing headphones that damage the skin inside the ear canal, or putting cotton swabs in the ear canal. Middle ear infection: The middle ear is located between the eardrum and the inner ear. The infection can start from a respiratory tract infection and leads to a buildup of fluid behind the eardrums caused by the infections. Inner ear infection: This part contains the labyrinth, which helps in maintaining balance. The other part is the cochlea, a part of the labyrinth, which is a snail-shaped organ that converts sound vibrations from the middle ear into electrical signals. The infection of the inner ear is labyrinthitis which is sometimes caused by viral or bacterial infections from respiratory illnesses.
2. Symptoms of other conditions Ear pain with a toothache in children who are teething. Individuals with an infected tooth having an abscess or impacted wisdom teeth are more likely to have an ear pain. Ear pain with a change in hearing, earwax build-up, an object stuck in the ear (do not try to remove it yourself – see a GP), and perforated eardrum (particularly after a loud noise or accident). Ear pain with pain when swallowing in case of sore throat, tonsillitis, and quinsy (a complication of tonsillitis). Ear pain with a fever, flu, cold or sinusitis.
3. Ear wax It is part of the body’s protective mechanism to lubricate the ear canal and prevent infection. If the wax hardens and builds excessively, it may cause significant ear pain, if the wax presses against the eardrum.
4. Insertion of a foreign object When a foreign body is inserted into the ear, it causes pain and inflammation. These may include hairpins and pointed objects that are often used to scratch or remove ear wax.

Other causes of ear pain

1. Meniere’s disease Meniere’s disease is caused by excess fluid buildup in the inner ear, although the exact reason behind this fluid retention is not known. Along with the classic triad of symptoms—vertigo, ringing in the ears, and hearing loss – some people with Meniere’s disease report ear pain or pressure.
2. Tumors Although not common, a tumor may be the reason behind a person’s ear pain. For example, nasopharyngeal cancer (a type of head and neck cancer) may cause ear fullness, along with hearing loss, ringing in the ears, and recurrent ear infections.

Two examples of benign (noncancerous) tumors or growths that may develop in the ear and cause pain include: Cholesteatoma: A benign skin growth that forms in the middle ear. Acoustic neuroma: A benign inner ear tumor that develops on the vestibular nerve (eighth cranial nerve). 3. Other causes: Some of the other causes of ear pain include: Change in pressure, such as when flying on a plane Temporomandibular joint (the joint that connects the lower jaw to the skull) syndrome Arthritis affecting the jaw Eczema in the ear canal Trigeminal neuralgia (chronic facial nerve pain) Thyroid inflammation Carotid artery pain (carotidynia)

Learn more about the five most common causes of ear pain and how to deal with them. Click Here!

Risk Factors For Ear Pain

The following conditions are related to increased risk of ear pain: Inflammation in the ear Fluid buildup in the ear Medical conditions like respiratory tract infection, sinusitis, common cold, allergies or asthma Illnesses that weaken the immune system such as AIDS (HIV infection) Smoking also increases the chances of developing an ear infection Children having viral infection People who swim regularly are at a higher risk due to the water getting into the ears while swimming Diagnosis Of Ear Pain If you experience any symptoms of ear pain such as burning pain or discomfort, hearing loss, or drainage from the ear, then it is wise to consult a doctor. Your doctor might do some physical examination followed by a few questions related to your daily routine to know the cause of it.

Diagnosing ear pain often only requires a medical history and physical examination by an ear, nose, and throat (ENT) specialist.

1. Medical history An ENT specialist can ask several questions related to the details of your pain like what the pain feels like, does the pain come and go, and whether a person is experiencing symptoms such as fever, hearing loss, and balance problems, ear drainage or tinnitus (ringing in the ears).
2. Physical examination During your physical exam, the general physician will inspect the ear and parts of the ear including the outer, middle, and inner ear, ear canal, and tympanic membrane (eardrum) with an otoscope (an instrument designed for visual examination of the eardrum and the passage of the outer ear, typically having a light and a set of lenses). The most common causes are temporomandibular joint syndrome, pharyngitis (sore throat), dental disease, and cervical spine arthritis. The doctor will also look for the medical history of asthma, respiratory illness, and sinusitis in both children and adults.

In some cases, nasal endoscopy is recommended. It is a non-surgical procedure that allows for the examination of the middle ear, nasal passages, and openings to the sinuses and/or the upper section of the gastrointestinal tract.

1. Blood tests These may be used to help diagnose various ear pain conditions in case of an ear infection. White blood cell (WBC) count: This test can help to determine an infection or inflammation as WBCs play a vital role in your immune system. They assist in fighting infection and help in defense against other foreign materials. Erythrocyte sedimentation rate (ESR): This test can be commonly used to detect non-specific signs of inflammation resulting from infection, cancers, or certain autoimmune disorders. C- reactive protein (CRP): It is a marker for inflammation, and its level increase during bacterial infection and tissue damage. These blood tests are not precisely done for detecting ear pain, but the evaluation can help rule out other related diseases like thyroid disorders and syphilis, all of which may have symptoms similar to those of Meniere’s disease.
2. Imaging If the diagnosis is not clear from the history and physical examination, imaging studies are done for a precise outcome. Imaging is sometimes needed to sort out an ear pain diagnosis. X-ray: It is done to evaluate the jaws and adjacent areas of the ear. Computed tomography (CT) scan or magnetic resonance imaging (MRI): It can be done for visualizing the middle and inner ear. The MRI scan is generally advised by the doctor when he finds that your hearing loss is sensorineural which means there is a problem with the nerves, to suspect a possible tumor such as nasopharyngeal cancer as the source of your ear pain.
3. Hearing tests These may be recommended if there have been recurrent infections or if there has been a delay in speech development in children.
4. Tympanometry It refers to a test that helps in the evaluation of the proper functioning of the middle ear. The middle ear is positioned behind the eardrum, also known as the tympanic membrane.‌

The test seeks to establish the condition and movement of the tympanic membrane as it responds to changes in pressure. The test helps doctors to identify and monitor any problems with the middle ear. After the test, the doctor records the results in a graph called a tympanogram.

Tympanometry is helpful in the diagnosis of ear problems that can lead to hearing loss, mostly in children. Through the test, your doctor can check if you have:‌ A middle ear infection Fluid in the middle ear A perforated tympanic membrane Issues with the eustachian tube that connects the upper throat and nose to the middle ear‌ Prevention Of Ear Pain

Some ear pains may be preventable by avoiding some preventative measures like: Avoid smoking Avoid chronic use of cotton swabs  
Avoid putting sharp and foreign objects into the ear as this can scratch up the ear canal or the wax layer, which can increase the risk of infection After swimming, blow-dry your ears to avoid buildup of water in the ear Keeping swimming pools and hot tubs clean with disinfectants and regular pH testing will also reduce the risk of infection and ear pain Breastfeed exclusively until your baby is 6 months old and continue to breastfeed for at least 12 months Specialist To Visit

The symptoms of ear pain are often easy to deal with the use of over-the-counter pain medications. However, consult a doctor in case: You experience severe ear pain or discomfort that seems different or worse than usual You notice fluid (such as pus or blood) oozing out of ear You have a high fever You have a headache or feel dizzy You feel an object is stuck in your ear You see swelling behind your ear, especially if that side of your face feels weak or you can’t move the muscles You’ve had severe ear pain and it suddenly stops (which could mean a ruptured eardrum) Your symptoms don’t get better (or get worse) in 24 to 48 hours Specialists that can help to manage ear pain include: General physician ENT specialists Pediatrician (in case of children) If you, your children or any family members are facing such issues, contact and seek medical help immediately. Consult Now!

Treatment Of Ear Pain As there are many different causes of ear pain, there are similarly many possible treatments. The treatment of choice will specifically depend on the root cause of your ear pain.

Self-care plan Home therapies can sometimes go a long way in easing ear pain, especially if the pain is related to fluid build-up from a virus or allergies. Hold a warm compress against your ear or sinuses. Performing simple jaw exercises in case of temporomandibular disorder (TMD). For a blocked eustachian tube, drugs commonly used include decongestants and antihistamines can be used. If a buildup of wax is causing your ear pain, you may be given wax-softening ear drops. They may cause the wax to fall out on its own. In case of children, antibiotics cannot be prescribed immediately, watchful waiting and delayed prescribing steps are what doctors recommend. Watchful waiting for the child and waiting to check if the child needs antibiotics. This gives the immune system time to fight off the infection. Ear flushing This procedure is done to remove impacted wax, debris, infected material, and dead skin cells in the treatment of otitis externa (external ear). If a buildup of wax is causing your ear pain, you may be given wax-softening ear drops, this causes the wax to soften. Ear lavage also known as ear irrigation or ear flush, is a safe method of earwax removal. Medication Antibiotics are often not needed for middle ear infections because the body’s immune system can fight off the infection on its own. However, sometimes antibiotics, such as amoxicillin, are needed to treat severe cases right away or cases that last longer than 2–3 days. A standard 10-day course is recommended for younger children and children with severe illness; whereas a 5 to 7 day course is appropriate for children 6 and older with mild to moderate illness. To soothe ear pain, sometimes the doctor may recommend over-the-counter acetaminophen or nonsteroidal anti-inflammatory drugs (NSAIDs) such ibuprofen. This medication can help in getting relief in pain and fever. For the pain of TMJ syndrome, your general practitioner may also prescribe a muscle relaxant or a tricyclic antidepressant. Ear drops work in combination to reduce inflammation, treat the infection, and ease the pain. The drops contain active ingredients like acetic acid, benzocaine, benzocaine + chlorbutol + paradichlorobenzene + turpentine oil, and paradichlorobenzene + benzocaine + chlorbutol. Surgery In a few cases, a surgical procedure called a myringotomy is sometimes needed to treat chronic middle ear infections which causes persistent ear pain in children and adults. The term myringotomy is a surgery where a tiny incision is made on the eardrum to drain out any fluid or pus that may have accumulated in the middle ear.

Sometimes, an ear tube insertion is also placed, known as tympanostomy tubes or grommets, into the eardrum to reduce the occurrence of ear infections and allow drainage of excess fluids. The procedure is very common and poses minimal risks. An ear tube insertion is more common for children, who tend to suffer ear infections more often than adults.

Surgery may also be indicated for other ear pain diagnoses like a tumor, severe mastoiditis, or abscess formation in perichondritis. Alternative Therapies For Ear Pain

1. Cold or warm compresses Putting moist heat around an infected ear can work as a great pain reliever. You can use this for both adults and children as this is a very safe remedy. Place the ice pack or warm compress over the ear and alternate between warm and cold after 10 minutes.
2. Neck movements and exercises  
   Some ear aches are caused by pressure in the ear canal. Certain neck movements and exercises can alleviate discomfort. Neck rotation can be one of the most beneficial exercises for relieving pressure in the ear canal.
3. Steam inhalation Taking steam via a steam inhaler or vaporizer can be a great way to reduce ear pain. A warm shower can also be taken. The moist air opens and relaxes the airways, thus relieving the pressure and ear pain.
4. Home remedies Garlic (Lehsun): It has both analgesic and antibiotic properties. Its extracts help ease ear pain caused by an ear infection. Warm equal amounts of garlic and eucalyptus oil. Cool, filter the oil, and put 2 or 3 drops of this garlic oil in the aching ear. Chewing gum: If the ear pain is caused due to air pressure difference when traveling on an airplane. Chewing gum is very helpful in relieving the pressure in the middle ear. Ginger (Adrak): It has natural anti-inflammatory properties that can help soothe pain from ear pains. Apply warmed ginger juice around the outer ear canal. Do not put it directly into the ear. Onion: It is one of the most easily available home remedies for ear pain. Onions have antibiotic, antioxidant and anti-inflammatory properties. Olive oil: A few drops of olive oil into the ear can act as a lubricant and helps in getting rid of the infection. Frequently Asked Questions What is the difference between ear pain and ear infection? Ear pain is mostly seen in? Can ear infections cause ear pains in adults? Can an ear pain come and go? What is otalgia? What is a swimmer’s ear? References Ear infection in children. National Institute on Deafness and Other Communication Disorders. March 2022. Ear Infection. Centers for Disease Control and Prevention. July 2021. Monasta L, Ronfani L, Marchetti F, Montico M, Vecchi Brumatti L, Bavcar A, Grasso D, Barbiero C, Tamburlini G. Burden of disease caused by otitis media: a systematic review and global estimates. PLoS One. 2012. Ely JW, Hansen MR, Clark EC. Diagnosis of earache. Am Fam Physician. 2008 Mar 1. Worrall G. Acute earache. Can Fam Physician. 2011 Sep. SMITH EJ. Earache. Can Med Assoc J. 1952 Mar. Jones W. Earache. Dent Regist. 1882 Mar.

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