The signs and symptoms include Headache Dyspnea Dizziness Nosebleeds Changes in vision Chest pain Fatigue Swelling in the legs and feet Abnormal heart sounds Narrowing of the eye blood vessels Retinal bleeding Changes in reflexes Hypertension is a ‘silent killer’. Most of the time, the signs and symptoms are none. Symptoms may show up in long-standing or severe hypertension. Did you know? Most people who think that their blood pressure is low actually have normal blood pressure. Both numbers in a blood pressure reading are important. But after age 50, the systolic reading is even more important. Isolated systolic hypertension is a condition in which the diastolic pressure is normal (less than 80 mm Hg) but systolic pressure is high (greater than or equal to 130 mm Hg). This is a common type of high blood pressure among people older than 65. Click To Buy BP Monitor Causes Of Hypertension

The cause for hypertension is unknown in the majority of cases. The interplay of genetic, environmental, behavioral and dietary factors is responsible for the development of hypertension. There are two types of high blood pressure which include:

1. Primary (essential) hypertension: For most adults, there’s no identifiable cause of high blood pressure. This type of high blood pressure, called primary (essential) hypertension, tends to develop gradually over many years.
2. Secondary hypertension: If your high blood pressure is caused by an underlying condition, it is called secondary hypertension. Various conditions and medications can lead to secondary hypertension, including: Obstructive sleep apnea Kidney disease Adrenal gland tumors Thyroid problems Certain defects you’re born with (congenital) in blood vessels Certain medications, such as birth control pills, cold remedies, decongestants, over-the-counter pain relievers Certain illicit drugs such as cocaine and amphetamines Lifestlye factors such as being overweight/obese, smoking, no exercise, etc Types Of Hypertension

The American Heart Association has classified the blood pressure into five different ranges. These are:

1. Normal blood pressure (BP): If your blood pressure is less than 120/80 mm Hg (where systolic BP is less than 120 mm Hg and diastolic BP is less than 80 mm Hg), then your blood pressure is considered to be in the normal range. This indicates that your heart is healthy and hence, it is important to stick to your habits when it comes to diet and exercise.
2. Elevated blood pressure: This is the stage where your blood pressure readings consistently in the range of systolic BP is 120 – 129 mm Hg and diastolic BP is less than 80 mm Hg). If you suffer from elevated blood pressure there are high chances that you might develop hypertension in the future if proper steps are not taken to control your blood pressure. These steps mostly focus on strict diet control, exercise routine, weight control, active lifestyle and stress management.
3. Stage 1 hypertension: It is when your blood pressure readings are consistently 130 – 139/ 80 – 89 mm Hg (where systolic BP is 130 – 139 mm Hg and diastolic BP is 80 – 89 mm Hg). Based on your age and risk factors, your doctors might recommend diet control or prescribe medications. If you or your family have a history of heart disease or are obese, then it is likely that doctors might advise medications to prevent cardiovascular complication such as heart attack or stroke.
4. Stage 2 hypertension: This is when your blood pressure consistently ranges higher than 140/90 mm Hg (where systolic BP is 140 mm Hg or higher and diastolic BP is 90 mm Hg or higher). This is when your doctor might prescribe blood pressure medications to control hypertension along with lifestyle medications. Moreover, you might be advised to check your BP at home and keep a tab on your overall health.
5. Hypertensive crisis: This is the fifth but most severe stage of hypertension which requires urgent medical attention. In this stage, your blood pressure readings exceed 180/120 mm Hg (where systolic BP is higher than 180 mm Hg and diastolic BP is higher than 120 mm Hg). It is advised to wait for five minutes and check your readings again. If the readings are still extremely high, then contact your doctor immediately. This indicates that you might be experiencing signs of organ damage such as shortness of breath, chest pain, back pain, weakness or numbness, difficulty in speaking or changes in vision. Do not wait for the readings to come down but rush to a hospital at the earliest.

Resistant Vs refractory hypertension

Resistant hypertension is defined as blood pressure that remains above the normal range in spite of the use of 3 antihypertensive agents of different classes. You may have resistant hypertension if you are on 3 antihypertensive medications which when taken together, relieve high blood pressure (complementary mechanisms of action) but are still not able to achieve control over your high blood pressure or if you need ≥4 medications to achieve BP control.

Whereas, refractory hypertension (RfH) is an extreme phenotype of resistant hypertension (RH), being considered an uncontrolled blood pressure besides the use of 5 or more antihypertensive medications, including a long-acting thiazide diuretic and a mineralocorticoid antagonist.

Older age, obesity, chronic kidney disease and diabetes are some of the factors that increase the risk for resistant hypertension. Resistant hypertension increases the risk of myocardial infarction, stroke, kidney failure, and death by two to sixfold. Risk Factors For Hypertension

The risk factors of hypertension are divided into: Modifiable risk factors These include: Current cigarette smoking, secondhand smoking Diabetes mellitus Dyslipidemia/hypercholesterolemia Overweight/obesity Physical inactivity/low fitness Unhealthy diet Excessive use of alcohol Non-modifiable risk factors These include: Chronic Kidney Disease (CKD) Family history Increased age Low socio-economic/educational status Globalization, urbanization Gender (more prevalent in males) Obstructive sleep apnea Psychosocial stress Diagnosis Of Hypertension

Diagnosis of hypertension is based on blood pressure measurements. According to WHO, the measurements need to be recorded for several days before a diagnosis of hypertension can be made. Two consecutive measurements at least a few minutes apart are taken and recorded twice daily (morning and evening). A standard way to measure blood pressure is to take the average of more than two measurements in separate visits. Hypertension is generally treated with medicines when the average systolic blood pressure is 140 mmHg or higher, or when the average diastolic blood pressure is 90 mmHg or higher, taken on two or more separate days. Systolic and diastolic blood pressure of less than 120 mmHg and 80 mmHg, respectively, is considered normal.

Important note: One important thing to note is that if a person records high blood pressure at any single occasion, it does not imply that the person is hypertensive. The blood pressure readings are based on an average of more than two careful readings recorded on more than two occasions.

You will be evaluated through your medical history, physical examination, routine laboratory tests, and certain diagnostic procedures. Your doctor will identify the signs and symptoms that may be due to high blood pressure. The clinical findings may help uncover an underlying health disorder too. Laboratory tests are done for CVD (cardiovascular disease) risk factor profiling. The tests to screen secondary causes of hypertension & include:

Basic testing: Blood glucose test Complete blood count Lipid profile Kidney function test Serum sodium, potassium, calcium Thyroid-stimulating hormone Urinalysis Electrocardiogram Optional testing: Echocardiogram Uric acid Urinary albumin to creatinine ratio Laboratory tests are done for screening secondary causes of hypertension when the clinical indications and physical examination findings are present. Adults with resistant hypertension are also screened for secondary hypertension. Additional diagnostic tests may include complete blood count, urinalysis, urine culture, BUN, creatinine, electrolytes test, lipid profile, renal ultrasound, etc. Celebs affected Rajnikant In the year 2020, Superstar Rajnikanth was admitted to a hospital due to fluctuating blood pressure. His blood pressure was on a higher side and was advised complete rest. Oprah Winfrey American talk show host and actress Oprah Winfrey revealed that she suffered from high blood pressure along with prediabetes. Post which she lost weight and switched to a healthier lifestyle to manage her condition. Did you know? High blood pressure can affect sex life in men. This is because increased blood flow with high pressure can lead to microscopic injuries to various organs of the body including the penis. Moreover, it can also lead to an inability to maintain an erection, which is known as erectile dysfunction. Click Here To Know! Prevention Of Hypertension

1. Go easy on yourself. De-stress!

Chronic stress is an important contributor to high blood pressure. Even occasional stress can contribute to high blood pressure if you react to stress by eating unhealthy food, drinking alcohol or smoking. Managing stress can help you prevent high blood pressure. Give yourself time to get things done. Learn to say no and to live within manageable limits. Try to learn to accept things you can’t change. Know your stress triggers and try to avoid them. Take 15 to 20 minutes a day to sit quietly and breathe deeply. Meditate! Whether it involves chanting, breathing, visualization, it can be an effective stress-management tool for many people. 2. Cut down your salt intake

Restricting the salt intake to less than 6gm/day can not only lower the blood pressure but is also good for the heart. To decrease sodium in your diet, consider these tips: Read the food labels carefully and opt for foods with low sodium. Avoid having processed foods as they have high sodium content. Develop a taste for unsalted/low salted food. Resist the urge to sprinkle salt over salads and cooked food. 3. Eat heart-healthy foods

Foods rich in healthy fats such as monounsaturated fats and polyunsaturated fats are good for your heart. Also, foods loaded with vitamins & minerals are important for maintaining proper blood circulation. Foods rich in fibre can aid in lowering cholesterol levels. So make sure to include foods such as nuts, green leafy vegetables, tomatoes, garlic, ginger, apples, etc in diet for better heart health.

1. Exercise regularly

People who are physically active are often able to improve heart health and prevent complications such as hypertension. 30-45 minutes of brisk walking 3-4 times a week could lower the blood pressure by 7-8 mm Hg. You could pick any physical activity you like such as walking, running, swimming or cycling. 5. Lose those extra kilos

If you are overweight or obese, losing weight may be enough to prevent blood pressure in addition to other lifestyle conditions Limit your calorie intake to around 1500 Kcal per day. Have a diet rich in fruits, vegetables and low-fat dairy products. Stay hydrated. Drink around 2 liters of fluids throughout the day. Weight loss is 99% Mental & 1% physical. Start your journey today. Click Here!

1. Limit your tea/coffee intake

Caffeine can cause short-term spikes in blood pressure, even in people without hypertension. Limit your caffeine intake to about 2 cups of coffee per day.

1. Stay away from alcohol

Consuming more than 2 drinks a day increases the risk of hypertension in both men and women. It can also reduce the effectiveness of blood pressure medications. Restrict your alcohol intake to special occasions or weekends. And remember, moderation is the key.

1. Quit smoking

Smoking is tied to higher risk of hypertension. Each cigarette you smoke increases your blood pressure for many minutes after you finish. Quitting smoking helps your blood pressure return to normal. People who quit smoking, regardless of age have a higher life expectancy. Tobacco threatens!! Say no to tobacco now. How? Let us help. Click Here!

Specialist To Visit

If you observe any signs and symptoms of hypertension, then it is wise to consult a doctor without fail because immediate diagnosis and treatment can improve your overall well being. Also, if you are above 40 years or age or have any risk factors of high blood pressure, then it is wise to visit a doctor at least once a year and check your blood pressure.

Doctors that can help to diagnose and treat high blood pressure include: General physician (family doctor) Cardiologist Cardiothoracic vascular surgeon (CTVS) If you have other health problems along with hypertension, then you might be recommended to specialists such as: Nephrologist Ophthalmologist Neurologist Nutritionist Consult India’s best doctors online. Click here to book an appointment now. Book Now!

Treatment Of Hypertension

The main aim of treatment of hypertension is to keep the blood pressure within the normal range to lower the risk of future complications. Many drugs like diuretics, calcium channel blockers (CCBs), angiotensin-converting enzyme (ACE) inhibitors, angiotensin II receptor blockers (ARBs), beta blockers, vasodilators, etc. are currently available for reducing blood pressure. More than two-thirds of hypertensive individuals are suggested two or more antihypertensive drugs, selected from different classes of drugs to treat their hypertension. Diuretics Calcium channel blockers (CCB) Angiotensin-converting enzyme (ACE) inhibitors Angiotensin II receptor blockers (ARBs) Alpha and Beta blockers Vasodilators The first drugs that you may be prescribed to treat your hypertension (First-line treatment) may include thiazide diuretics, CCBs and ACEI/ARBs. If you have stage 2 hypertension but do not possess any high-risk situation then you may be prescribed two antihypertensive drugs from different classes instead of any specific drug.

1. Diuretics

Diuretics like hydrochlorothiazide eliminate excess salt and water from the body and also decrease calcium excretion. There are different types of diuretics that act at different sites of the renal tubules (small tubes) in the nephrons (functional unit of kidney). A few types of diuretics used in the treatment of hypertension are: Thiazides like hydrochlorothiazide, chlorthalidone, etc. Loop diuretics like furosemide, torsemide, etc. Potassium-sparing diuretics like triamterene, amiloride, etc. 2. Calcium channel blockers They bind to calcium channels in the blood vessels and block the entry of calcium. This causes dilatation of the blood vessels which helps decrease blood pressure. Calcium channel blockers are of two types: Dihydropyridines such as amlodipine, nifedipine,etc. Nondihydropyridines such as verapamil, diltiazem, etc.

1. Angiotensin-converting enzyme (ACE) inhibitors These inhibit the angiotensin-converting enzyme which regulates salt and water retention in the body. They also lower blood pressure by relaxing the blood vessels, decreasing blood volume and increasing sodium excretion in the urine. A few examples in this class of drugs are Fosinopril Captopril Enalapril Ramipril Lisinopril
2. Angiotensin Receptor Blockers (ARBs) If you are unable to tolerate ACE inhibitors, ARBs are used. They block angiotensin-II (a hormone which causes your blood vessel to constrict) from binding to its receptor and antagonize its action. This helps reduce your blood pressure. Some examples in this class of drugs are Telmisartan Losartan Valsartan Irbesartan
3. Beta-blockers If you are suffering from some serious conditions of the heart like heart failure, myocardial infarction, etc., beta-blockers are the prescribed alternatives. Some of the drugs in this class are Atenolol Metoprolol Propranolol Labetalol
4. Vasodilators It helps to lower blood pressure by relaxing the blood vessels’ walls and decreasing their resistance. These medications are vasodilators that work directly on the vessel walls to decrease blood pressure. Examples include Hydralazine Minoxidil
5. Aldosterone Antagonists Aldosterone antagonists are also considered diuretics. Examples are spironolactone and eplerenone (Inspra). These drugs block the effect of a natural chemical that can lead to salt and fluid buildup, which can contribute to high blood pressure. They may be used to treat resistant hypertension.
6. Alpha blockers These medications reduce nerve signals to blood vessels, lowering the effects of natural chemicals that narrow blood vessels. Alpha blockers include Doxazosin Prazosin

Tips to keep in mind when taking blood pressure medications You should always take blood pressure medications as prescribed. Never skip a dose or abruptly stop taking your blood pressure medication. Suddenly stopping certain blood pressure drugs, such as beta blockers, can cause a sharp increase in blood pressure (rebound hypertension). If you skip doses because you can’t afford the medications, because you have side effects or because you simply forget to take your medications, talk to your doctor about solutions. Don’t change your treatment without your doctor’s guidance. Home-care For Hypertension

Adopting a healthy lifestyle and making small but conscious dietary changes can go a long way in controlling blood pressure. In some cases, it can even help to reduce the dose and number of medications. Here are some easy ways of keeping blood pressure in check: Exercise regularly Cut down on salt intake Limit your calorie consumption Restrict your intake of caffeine Manage stress Quit smoking & cut down on alcohol You may also like to know these 6 effective ways to keep your blood pressure in check. Click Here To Read!

Tips to measure BP at home

If you are diagnosed with High BP, then you need BP monitoring as advised by your doctor. But even if you are not diagnosed with Hypertension you should check your BP at least once a month. This is because most of the time, high blood pressure has no symptoms. And owing to the unhealthy eating habits and stressful lifestyle, you are at risk of high blood pressure. Also, if you have a family history, you should check your BP regularly. Logging your blood pressure everyday is not a bad idea to keep a close tab on your BP levels. Here is a printable BP tracker for you to record your levels every day. Download Now!

There are two types of kits to measure BP. The digital and the manual BP monitor.

1. When using a digital monitor

Secure your arm (any arm as you please) in the cuff from your elbow upwards. Switch the monitor on. Inflate the cuff by pressing the bulb with whichever hand is free. For monitors with automatic inflators, just sit back and relax. Your cuff will start deflating, listen out for the long beep sounds. The first one will signify the systolic pressure, the second one will signify the diastolic pressure. After your monitor has registered both readings, it will display them on the screen. Let the cuff deflate completely and unwrap your arm. Still not sure about how to use a digital BP monitor? No worries. Watch this video to know the right way to use it.

1. When using a manual monitor Secure your arm (any arm as you please) in the cuff from your elbow upwards. You will need a stethoscope. Insert the head under the lower end of the cuff just above the elbow pit so that it rests on the radial artery. Tighten the screw on the airflow valve. Inflate the cuff by pressing the bulb with whichever hand is free. Once the meter shows 180 mm Hg, slightly loosen the screw of the airflow valve and let the air escape slowly. Listen for beats in the stethoscope with eyes on the meter. Record the meter readings when you start hearing them (systolic BP) and then again once you stop hearing them completely (Diastolic BP). To get accurate results when measuring BP at home, it is important to know the tricks and tips. Here are 10 tips to get started. Click To Read Article Complications Of Hypertension

Long-standing hypertension can cause harmful consequences. The thickening of the walls of the blood vessels leads to reduced blood flow to different organs of your body. Hypertension can increase the risk of developing coronary artery disease, heart failure, stroke, aortic aneurysm (bleeding from large blood vessels), nephropathy (kidney damage), retinopathy (vision loss), etc. Many people with hypertension also have other health risk factors like smoking, obesity, high cholesterol and diabetes which increase their odds of complications. 1. Coronary artery disease: The damaged blood vessels of the heart can reduce the efficiency of the heart and also increase its workload. This can cause angina (chest pain) and left ventricular hypertrophy (thickening of heart muscle wall), eventually leading to heart failure. 2. Stroke: Uncontrolled hypertension damages and weakens the small vessels in the brain causing them to rupture and leak. It can also lead to the formation of blood clots in the vessels which block the blood flow and potentially cause a stroke. 3. Dementia: Hypertension in midlife is also a major risk factor for dementia. Chronically elevated blood pressure causes thickening of the blood vessel wall, thereby narrowing the tiny blood vessels. Plaque accumulation also leads to narrowing of the larger arteries of the brain. These plaques may rupture and completely block the passage of blood within the blood vessels resulting in the death of tissue in areas of the brain responsible for memory and executive function. 3. Aortic aneurysm/dissection: Hypertension weakens the wall of the blood vessels and over time, may cause it to bulge. This forms an aneurysm (a pouch-like structure) in the blood vessel wall which can be fatal when ruptured. 4. Hypertensive nephropathy/CKD: Damaged small vessels in the kidney reduce its blood supply. This leads to reduced kidney functions and eventually to kidney failure. 5. Hypertensive retinopathy: The retina, choroid, and optic nerve of the eye are affected. Blood vessels in the retina of the eye are narrowed. This impairs the vision and leads to retinopathy and eventually blindness. These complications can be prevented by controlling the blood pressure and the known risk factors. Reduction of blood pressure to <130/80 mmHg has been shown to reduce heart complications by 25%. Alternative Therapies For Hypertension

According to Ayurveda, hypertension can be attributed to 2 types of causes: Diet-related Causes (Aharaj-nidana): These include excessive salt intake (atilavana), alcohol intake (atimadyapana), and meat consumption (mansa-sewan) Lifestyle-related Causes (Viharaj-nidana): These causes chiefly include staying awake at night (ratrijagarana), sleeping during the day (divasvapna), holding on to natural urges like urination (vegavidharana), sedentary lifestyle (avyayama), overexertion (ativyayam), stress and anxiety (manashetu) Ayurveda herbs: Individual drugs like Gokshura, Guggulu, Gomutra (cow urine), Arjuna, Punarnava, Ashwagandha, and Triphala can be used for the treatment of hypertension. Garlic powder in the dosage of 600-900 mg per day is a useful remedy for high blood pressure. Arjuna bark powder when taken in the dosage of 4 gm twice daily causes significant improvement in hypertension. Two tablets of Sarpagandha vati (250 mg) taken twice daily have shown good results in reducing blood pressure. Having Ashwagandha powder 2 gm with milk also helps to reduce blood pressure. Here’s more Ayurvedic herbs that are effective in regulating blood pressure and managing your condition at home. Click To Read

Panchakarma : Procedure of full body massage (Sarvanga Abhyanga) with medicated oils followed by induced vomiting and purgative therapy (Vaman and Virechan) or medicated enema (basti) may be administered depending upon the vitiated dosha and condition of the patient.

Yoga: Meditation and other relaxing techniques can help you in stress reduction. If practiced regularly and appropriately, you can also benefit from. Pranayama Shavasana Vajrasana Makarasana Dhanurasana Sukhasana Living With Hypertension

Hypertension is a lifelong disease which needs to be managed for the rest of your life. You will need to make the necessary dietary and lifestyle changes to efficiently manage your condition. Eating healthy, exercising regularly, reducing weight, limiting alcohol intake, quitting smoking, etc. can go a long way in managing the condition.  
However, with lifestyle changes and medication you may feel fine, you need to prevent health complications that may arise from hypertension. Also, managing your condition may take a toll on you, both physically and emotionally.

1. Invest in a digital BP monitor and use it regularly to check your blood pressure at home. Here are tips on how to choose a blood pressure monitor. Also, get your blood pressure tested at a hospital (from an expert or a qualified professional) once a year or during your regular health check-ups at a doctor’s clinic.
2. Rush to a hospital immediately if your blood pressure exceeds 180/120 mm Hg as it is a sign of hypertensive crisis. Also, if you experience symptoms of low blood pressure such as fainting, headache, dizziness, or fatigue, then do consult your doctor.
3. Eat a healthy diet low in sodium and fats to control your blood pressure along with regular intake of medicines and timely health checkups. Also, include lots of fresh fruits and vegetables in your diet and say no to sweetened beverages and processed foods. Here is a list of foods that people with hypertension should avoid.
4. Ideally, it is advised to exercise 30 – 45 minutes at least five times a day which includes brisk walking and strenuous workouts. For older individuals, it is recommended to perform physical activities at least twice a week. This is because it not only improves your blood circulation but also helps to control your blood pressure and lowers your risk of heart disease.
5. Limit the intake of alcohol as excessive drinking can increase the risk of hypertension. Also quit smoking as it can reduce the overall risk of cardiovascular diseases, a complication of high blood pressure.
6. If stress is the cause of high blood pressure, stress management should be considered as an effective intervention. Some of the techniques that can help to calm your mind and body and relieve stress include indulging in hobbies, playing a sport, joining a swim class or dance class or performing yoga and meditation.
7. Getting help from support groups for hypertension can help you to fight your condition. It also helps you to be more aware of your condition and its associated complications. You may be able to find one (in person or online) and share your story which in turn can help you to manage hypertension. Frequently Asked Questions Why is hypertension called the silent killer? Does hypertension affect only the elderly? Can hypertension be prevented even if it runs in my family? Is it safe to take ayurvedic/homeopathic medications along with drugs? Can I discontinue taking medications after my blood pressure returns to normal? Will I become addicted to hypertensive medications if I am taking multiple drugs? I was told that taking garlic cloves on an empty stomach every day in the morning can control hypertension. Is it true? Can I develop hypertension if I do not have any risk factors, but consume excessive amounts of common salt? Which food items can increase my chance of developing hypertension? References Key facts. Hypertension. The World Health Organization. Last updated may 2021. M. D. Saju, Komal Preet Allagh, Lorane Scaria, et al. Prevalence, Awareness, Treatment, and Control of Hypertension and Its Associated Risk Factors: Results from Baseline Survey of SWADES Family Cohort Study. International Journal of Hypertension, vol. 2020, 7 pages, 2020. Gupta R, Gaur K, S Ram CV. Emerging trends in hypertension epidemiology in India. J Hum Hypertens. 2018 Sep 25. Anchala R, Kannuri NK, Pant H, et al. Hypertension in India: a systematic review and meta-analysis of prevalence, awareness, and control of hypertension. J Hypertens. 2014 Jun;32(6):1170-7. Understanding Blood Pressure Readings. The American Heart Association. Hypertension. Screening, Diagnosis, Assessment, and Management of Primary Hypertension in Adults in India. Standard. Treatment Guidelines. Ministry of Health & Family Welfare. Government of India. Feb 2016. Hegde S, Aeddula NR. Secondary Hypertension. [Updated 2021 Jun 25]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Iqbal AM, Jamal SF. Essential Hypertension. [Updated 2021 Jul 10]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Facts About Hypertension. High Blood Pressure. Centers for Disease Control and Prevention (CDC). Last reviewed in July 2021 Chopra HK, Ram CVS. Recent Guidelines for Hypertension. Circ Res. 2019 Mar 29;124(7):984-986 Unger T, Borghi C, Charchar F, et al. 2020 International Society of Hypertension Global Hypertension Practice Guidelines. Hypertension. 2020 Jun;75(6):1334-1357. The Facts About High Blood Pressure. The American Heart Association. Last Reviewed in Nov 2017. Armstrong C. High Blood Pressure: ACC/AHA Releases Updated Guideline. Am Fam Physician. 2018 Mar 15;97(6):413-415.

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Hyperthyroidism Also known as Overactive thyroid Overview Hyperthyroidism is a medical condition in which the thyroid gland releases high levels of thyroxine hormone into the body. This condition can speed up a person’s metabolism rate and cause them to experience symptoms such as rapid heartbeat, increase in appetite, weight loss, and anxiety.

Different medical conditions can lead to the development of hyperthyroidism. These conditions include grave’s disease, thyroid nodules, and inflammation of thyroid gland. This condition is more common in women rather than men.

There are various treatment options available for hyperthyroidism. If you have been diagnosed with the condition, make sure you take your anti-thyroid drugs and implement lifestyle modification as suggested by your healthcare provider. Untreated hyperthyroidism can have a detrimental effect on different body organs such as the heart and skeletal system. 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 Thyroid gland Heart Skeletal system Skin Eyes Mimicking Conditions Alzheimer’s disease Depression Cirrhosis Dementia Hypoglycemia Necessary health tests/imaging Blood tests: Thyroid stimulating hormone (TSH), Thyroxine Total (T4), Thyroxine total (T3), Anti thyroglobulin antibody & Thyroxine binding globulin Imaging tests: Thyroid scan, Ultrasound & Radioactive iodine uptake test Treatment Radioactive iodine therapy Antithyroid medicines: Methimazole & Propylthiouracil Beta blockers Surgery Radiofrequency ablation (RFA) Specialists to consult General physician Endocrinologist Causes Of Hyperthyroidism

The thyroid gland is a small butterfly-shaped gland in the front of the neck, just below the adam’s apple and above the collarbone. It is stimulated by thyroid-stimulating hormone (TSH) produced by the pituitary to produce two main hormones –T4 (thyroxine) and T3 (triiodothyronine). These hormones play a major role in maintaining important bodily functions including: Metabolism (the process that changes the food into energy which helps the body function) Breathing Heart rate Body temperature Normally, the body is supposed to produce the right amount of TSH and thyroxine that can regulate normal functioning in a person. But sometimes, the body produces an excess of TSH or the thyroid gland starts producing extra thyroxine, leading to hyperthyroidism.

1. Primary hyperthyroidism Primary hyperthyroidism or thyrotoxicosis is present when the disorder lies within the thyroid gland, leading it to produce large amounts of thyroxine. This can be caused due to different conditions such as:

Graves’ disease: Graves’ disease, the most common cause of hyperthyroidism, is an autoimmune condition in which the immune system overproduces an antibody called thyroid-stimulating immunoglobulin (TSI). This antibody starts attacking the thyroid gland, which stimulates the thyroid to make excessive thyroid hormone. The exact cause behind Graves’ disease is unknown.

Graves’ disease is a genetic condition and can pass down in a family. Women are more likely to suffer from Grave’s disease than men. It typically presents in people between 30 to 50 years of age.

Thyroid nodules: A thyroid nodule is a lump or growth of cells in the functioning tissue of the thyroid gland. These nodules produce more than the required hormone that leads to hyperthyroidism. Overactive thyroid nodules are usually large (an inch or more in size) and can be big enough to be felt in the neck. Mostly, these nodules are non-cancerous.

Thyroiditis: The swelling or inflammation of the thyroid gland is called thyroiditis. When the thyroid gland swells, it starts leaking excessive hormones that lead to a higher level of thyroid hormones than needed. As a result, one may develop symptoms of hyperthyroidism. Thyroiditis can occur due to infections, an immune system disorder or after the delivery of a baby, known as postpartum thyroiditis.

Hyperthyroidism from thyroiditis usually lasts for a few months. The thyroid usually recovers on its own, but sometimes, it gets damaged. This can lead to hypothyroidism or underactive thyroid.

Iodine: Iodine is a mineral that is used by the thyroid gland to produce thyroid hormones. Consuming too much iodine through diet like seaweed and seaweed-based supplements and medications like some cough syrups or heart medicine amiodarone can result in high thyroid hormone. Rarely, iodine dye or intravenous iodinated contrast used for x-ray based imaging tests can also cause hyperthyroidism.

1. Secondary hyperthyroidism This condition is rare and arises due to increased stimulation of the thyroid gland by excessive TSH in the circulation. This can be caused due to a non cancerous pituitary tumour that overproduces TSH. The hypothalamus produces thyroid releasing hormone (TRH) that stimulates TSH. Rarely, the overproduction of TRH from the hypothalamus can cause an increase in the levels of TSH.
2. Subclinical hyperthyroidism Subclinical hyperthyroidism causes low or undetectable levels of TSH with a normal level of thyroid hormones. It can be caused due to medical disorders such as Graves’ disease, multinodular toxic goitre (enlarged thyroid gland), and thyroiditis. Medications such as glucocorticoids, amiodarone, and dopaminergic drugs can also cause subclinical hyperthyroidism.
3. Hyperthyroidism in neonates This is a rare condition seen in neonates of mothers with Graves’ disease. In rare cases, hyperthyroidism may occur in the neonates of mothers with a history of treated Graves disease, indicating a remission in their condition.

Sometimes, it is also seen in newborn babies of mothers with a normal thyroid gland function (euthyroid). An increase in maternal TSH-receptor antibodies can cause hyperthyroidism in neonates.  
Symptoms Of Hyperthyroidism

Hyperthyroidism can cause several symptoms that affect your entire body. It is possible to experience more than one symptom at the same time. Some of the common symptoms of hyperthyroidism are: Palpitations or rapid heartbeat Irregular heartbeat (arrhythmia) Unexplained weight loss Increased appetite Nervousness and irritability Trembling in your hands and fingers Increased frequency of bowel movements and diarrhea Double vision Menstrual changes Thin skin Sleep disorders Intolerance towards heat Excessive sweating Enlarged thyroid gland leading to swelling of the neck (goitre) Thin, brittle hair Bulging of the eyes Muscle weakness Older adults may present with different symptoms that can be mistaken for depression. They are more likely to show either no symptoms or subtle ones such as loss of appetite, heat intolerance, fatigue or withdrawal from people. Risk Factors For Hyperthyroidism

You may be at a higher risk of developing hyperthyroidism, if you: Have a family history of thyroid disorders Had thyroid surgery or a thyroid problem such as a goitre (swollen thyroid gland) Are a women Are older than 60 years Have been pregnant or had a baby in the past 6 months Have an underlying chronic illness such as type 1 diabetes, primary adrenal insufficiency (Addison’s disease) and pernicious anemia (Vitamin B12 deficiency) Are consuming excessive amounts of iodine-containing supplements or medicines Have hypothyroidism that is overtreated (overdose of thyroxine medication) Diagnosis Of Hyperthyroidism

The tests that are essential for diagnosing hyperthyroidism are:

1. Physical examination A physical examination entails gently feeling the neck to check for the size of the thyroid gland. The healthcare provider will also examine the skin, eyes, and heart. This will help them in detecting tremors, overactive reflexes, and warm & moist skin.
2. Blood tests

Thyroid stimulating hormone (TSH): This is the most important and sensitive test for hypothyroidism. It measures how much of the thyroxine (T4) hormone the thyroid gland is being asked to make. A low TSH level indicates the presence of hyperthyroidism or an overactive thyroid. This suggests that the thyroid gland is making the excessive hormone that has caused the pituitary to stop releasing TSH into the blood. If the TSH levels are not normal, your physician might recommend an additional test to confirm the diagnosis.

Thyroxine total (T4): Most of the T4 in the blood is attached to a protein called thyroxine-binding globulin. The “bound” T4 can’t get into body cells. Only about 1%–2% of T4 in the blood is unattached (“free”) and can get into cells. The free T4 and the free T4 index are both simple blood tests that measure how much unattached T4 is in the blood and available to get into cells. A high blood level of T4 may indicate hyperthyroidism.

Thyroxine total (T3): The total T3 includes both bound and free forms circulating in the blood and can be affected by the amount of protein available in the blood to bind to them. The T3 hormone can be measured as free T3 or total T3. Triiodothyronine (T3) total test measures the total levels (both free and bound forms) of triiodothyronine (T3) hormone in the blood and is usually done as a part of the thyroid profile total test. Hyperthyroid patients typically have an elevated level of T3.

Along with these three tests, supporting tests may be required to evaluate and monitor the condition such as: Anti thyroglobulin antibody Thyroxine binding globulin 3. Imaging tests The following imaging tests can be used to find the cause of hyperthyroidism.

Thyroid scan: Thyroid scan can help to evaluate the size, shape, and position of the thyroid gland. This test uses a small amount of radioactive iodine to help diagnose the cause of hyperthyroidism and check for thyroid nodules as well.

Ultrasound: Ultrasound of the thyroid is used to closely look at thyroid nodules. Thyroid nodules are solid or fluid-filled lumps that form within the thyroid gland. Ultrasound can also help the doctor to evaluate if the nodules are cancerous in nature.

Radioactive iodine uptake test: A radioactive iodine uptake test, also called a thyroid uptake test, measures how much radioactive iodine the thyroid takes up from the blood after swallowing a small amount of it. It can help check thyroid function and find the cause of hyperthyroidism. Celebs affected Missy Elliot Hip-Hop star Missy Elliot was diagnosed with Graves’ disease and hyperthyroidism in 2008. According to her, radiation therapy and exercises helped her to get better. George H.W Bush Former US president, George H.W Bush, was also diagnosed with Graves’ disease. He responded well to the treatment protocols used for management of the condition. Prevention Of Hyperthyroidism

In most cases, there are no known ways to prevent hyperthyroidism. If you have a family predisposition to Graves’ disease, talk to your physician about getting regular health checkups. People at a higher risk of hyperthyroidism can make healthier lifestyle choices such as having balanced meals, exercising regularly, and avoiding smoking. Specialist To Visit

You should visit a doctor, if you are experiencing symptoms such as unexplained weight loss, increased appetite, intolerance to heat, excessive sweating, brittle hair, nervousness, tremors, and heart palpitations. These symptoms might indicate the possibility of hyperthyroidism. You can consult the following doctors for a diagnosis: General physician Endocrinologist If you are facing such an issue, seek advice from our professionals. Consult Now!

Treatment Of Hyperthyroidism

Hyperthyroidism can be managed through several kinds of treatment modalities. The best approach is decided on an individuals age, overall wellbeing, underlying cause, and severity of the disorder. The treatments include:

1. Radioactive iodine therapy Radioiodine therapy is a common and effective method to treat hyperthyroidism. The patient is asked to take radioactive iodine-131 capsules or liquid through their mouth. It acts solely on the thyroid gland and slowly destroys the thyroid gland cells that are producing thyroid hormone.

However, people on radioiodine therapy end up developing hypothyroidism due to the permanent destruction of the thyroid. Hypothyroidism can be managed by taking daily thyroid hormone medications to maintain normal hormone levels.

Pregnant or breastfeeding mothers shouldn’t take radioactive iodine as it can affect the baby’s thyroid glands. Occasionally a person can lose sensation in their mouth after the therapy. The sensation loss may last for up to a year but returns to normal later.

1. Antithyroid medications Antithyroid drugs are the easiest way to manage hyperthyroidism. Doctors most often recommend methimazole. Pregnant women are recommended propylthiouracil during the first three months as rarely, methimazole can harm the developing baby.

Antithyroid drugs cause the thyroid gland to produce less hormone. A patient on antithyroid medicine can expect an average treatment time of 1-2 years. In some cases, one might need to take the medicines for several years. This is the simplest treatment, but it is often not a permanent cure. These medications can temporarily ease the symptoms of patients with Graves’ disease. However, they are not used for hyperthyroidism caused by thyroiditis.

Antithyroid drugs can cause side effects such as allergic reactions, reduction in the body’s white blood cells, and rarely, liver failure.

1. Beta-blockers These drugs block the effect of thyroid hormones on the body. However, it does not stop the production of hormones. They are not used alone but as an adjunct to another option to treat hyperthyroidism over the long term.

Beta blockers act by widening or relaxing the blood vessels. They can reduce symptoms like tremors, rapid heartbeat, and nervousness until other treatments start working.

A patient can feel improvement in their symptoms within hours of these medications.

1. Thyroid surgery With the introduction of radioactive iodine therapy and antithyroid drugs, surgery for hyperthyroidism (thyroidectomy) has become less common. This surgery entails the removal of a part or most of the thyroid gland. Doctors recommend this surgery in: Pregnant women and children who are at risk of developing side effects from antithyroid medications. People with very large thyroid glands facing issues such as difficulty swallowing, hoarseness, and shortness of breath. Removing a part of the thyroid gland may cause hypothyroidism after the surgery. This would require the patient to take thyroid hormone for the rest of their lives to maintain their hormone levels.

In rare cases, a patient might face complications such as paralysis of vocal cords and damage to parathyroid glands that produce calcium. Accidental removal of parathyroid glands may result in low calcium levels and require calcium replacement therapy.

1. Radiofrequency ablation (RFA) This is a new approach to treat thyroid nodules that results in tissue necrosis and shrinkage of nodules. It’s a minimally invasive treatment for benign (non-cancerous) thyroid nodules. RFA is primarily recommended for people who have not benefited from medications or surgery. Home-care For Hyperthyroidism

If you have been prescribed antithyroid medications, take the medications on time regularly. The amount of time it takes to treat hyperthyroidism depends on the cause of the disorder. With antithyroid drugs, a person’s hormone levels should drop to a manageable level within 6 to 12 weeks.

After that, your doctor might prescribe the patient with high doses of non-radioactive iodine drops that will normalise thyroid levels within seven to ten days. To avoid forgetting your medications, you can put them into labelled containers and set alarms that remind you about them.

If you have undergone thyroid surgery, then closely follow the post operation instructions given by your doctor to avoid infections. Make sure to take the prescribed thyroid hormone drugs that will help you maintain your thyroid levels.

Diet Consuming a wholesome and balanced meal with plenty of vegetables, fruits, and lean protein sources is an important way of ensuring that you are getting the necessary nutrients. If you have lost a lot of weight due to hyperthyroidism, your doctor will put you on a diet that helps in healthy weight gain. A low-iodine diet is often recommended to people with hyperthyroidism since excessive iodine aggravates T4 production.

You should avoid eating foods with high iodine content such as saltwater fish, cheese, milk, eggs, kelp, or seaweed. If you are taking any supplements, then make sure that it doesn’t contain iodine. Sodium can also contribute to swelling, which is common with Graves’ disease, so salt intake needs to be kept in check as well. Untreated hyperthyroidism can weaken the bone structure. To counteract that, eat food items rich in calcium such as tofu, fortified soy or calcium supplements.

Exercise Regular exercise is good for your long term health and especially for people with hyperthyroidism. Mild cardiovascular exercises can relieve stress and reduce nervousness & irritability caused by hyperthyroidism. Strength training also helps in increasing bone density. However, it is important to not overdo any exercise since the heart rate and metabolic rate are already elevated at rest, in cases of untreated hyperthyroidism.

You can start with low-intensity workouts such as walking, yoga, and tai chi. Seeking out professional trainers who have experience working with patients having medical conditions can also prove helpful. Exercising can help a patient after a thyroid surgery by preventing excess weight gain and controlling their appetite.

Stress management Hyperthyroidism increases anxiety and nervousness. Stress can aggravate hyperthyroid symptoms and make them worse. Stress management is an important part of treating hyperthyroidism, especially in patients with Graves’ disease. Implementing relaxation techniques like meditating for a few minutes every day is a good way to start. Going for a walk outside to get in some fresh air can have a calming effect.

Nutritional supplements People with hyperthyroidism can have supplements such as Vitamin D, multivitamins without iodine, probiotics, omega-3 fatty acids, Vitamin C, and L-carnitine. It is important to consult your doctor before adding any supplements to your diet. Complications Of Hyperthyroidism

Untreated hyperthyroidism can cause several complications that affect different parts of your body leading to:

1. Heart diseases Hyperthyroidism causes rapid or irregular heartbeat. A rapid heartbeat is caused as a result of fast metabolism caused by hyperthyroidism. The body runs faster than normal with an overactive thyroid and hence causes the sensation of a racing heart. This increases your risk of facing medical conditions such as stroke and heart failure.
2. Bone disorders Unchecked levels of thyroid hormones can cause weakening of the skeletal system and make your bones brittle. Excessive thyroxine affects the rate of bone replacement and speeds up the pace of bone loss. The bone producing cells (osteoblasts) are unable to replace the lost bone at the required rate. This can result in osteoporosis, a condition that causes bones to become weak and fracture.
3. Eye and skin problems Hyperthyroidism caused due to Graves’ disease affects both the eyes and the skin. It can affect your eyes in several ways such as bulging eyes, vision loss, redness, swelling, double vision, and light sensitivity. Graves’ disease can also cause the skin to become red and swollen. It specifically affects the feet and shin.
4. Thyrotoxic crisis (thyroid storm) A thyroid storm is a serious complication of hyperthyroidism. It occurs due to a sudden and severe elevation in thyroid hormone levels. This is a life-threatening condition that needs immediate medical attention. The most common symptom of a thyroid storm is increased body temperature, blood pressure, heart rate, and a sudden change in mental state like confusion or lethargy.
5. Infertility and complications during pregnancy Hyperthyroidism can cause a marked reduction in the sperm count of men, which affects their fertility. The count goes back to normal once the thyroid disorder has been treated. Women with untreated Graves’ disease may have lighter or irregular periods and face difficulty in conceiving. Hyperthyroidism may also increase the risk of early-term miscarriage and premature birth. Alternative Therapies For Hyperthyroidism

Homoeopathic drugs like lodium, natrum muriaticum, and lachesis mutus have shown effectiveness in managing hyperthyroidism. Living With Hyperthyroidism

Being diagnosed with hyperthyroidism can cause stress and anxiety which can lead to further health complications. Patients often struggle with hair loss, nervousness, infertility, and tremors. The long-term outlook for hyperthyroidism depends on the cause behind the disorder. However, early diagnosis and treatment along with good home care can greatly improve the disease outlook.

1. Maintain a healthy weight Increased thyroid levels accelerate the body’s metabolism rate and cause unintentional weight loss. Occasionally, patients are happy with the quick weight loss, but that’s not healthy. Consult your doctor to learn the healthy weight for you and consume enough calories to help you maintain that.
2. Consume the right diet Having a balanced meal can work wonders for patients with Graves’ disease. If you have faced excessive weight loss due to hyperthyroidism, increasing your food intake can overtake the increase in metabolic rate and help you gain weight.

Hyperthyroidism also leads to an increased appetite. It is important to have healthy snacks in between your meals to satiate your hunger the healthy way. Patients with hyperthyroidism should avoid having excessive sugar since the condition speeds up the rate of insulin metabolism. This increases the rate of production and absorption of glucose. This can result in insulin resistance, especially for diabetic patients.

1. Avoid smoking and secondhand smoke Graves’ eye disease can develop in patients who have Graves’ disease. Smoke can worsen this eye disease, so it is essential not to smoke and to avoid secondhand smoke.
2. Practice yoga and meditation Hyperthyroidism is notorious for its effects on mental health such as anxiety and nervousness. Additional stress from everyday situations can aggravate your thyroid symptoms. To counter that, patients with hyperthyroidism should regularly take some time off to practice calming exercises like yoga and meditation.
3. Take your medications regularly It is vital to take your prescribed medications daily and follow your doctor’s instructions. To ensure that your hormone levels stay consistent throughout the day, taking the medicines at evenly spaced intervals is important. Antithyroid medications take some time to work, so it is important to follow the prescribed medication cycle. Frequently Asked Questions Is Graves’ disease a serious condition? Is hyperthyroidism genetic? How long will it take to get my thyroid levels under control? Why am I losing weight suddenly? Can I get hypothyroidism from my hyperthyroidism treatments? Can hyperthyroidism cause female infertility? Is there a permanent cure for hyperthyroidism? References Franklyn JA, Boelaert K; Thyrotoxicosis. Lancet. 2012 Mar 24379(9821):1155-66. doi: 10.1016/S0140-6736(11)60782-4. Epub 2012 Mar 5. Mathew P, Rawla P. Hyperthyroidism. In: StatPearls [Internet]. StatPearls Publishing. Updated November 21, 2020. Accessed April 29 2021.www.ncbi.nlm.nih.gov/books/NBK537053 Ross DS, Burch HB, Cooper DS, et al. 2016 American Thyroid Association guidelines for diagnosis and management of hyperthyroidism and other causes of thyrotoxicosis. Patel KN, Yip L, Lubitz CC, et al. Executive summary of the American Association of Endocrine Surgeons guidelines for the definitive surgical management of thyroid disease in adults. Annals of Surgery. US Department of Health and Human Services, National Institute of Diabetes and Digestive and Kidney Diseases. . Accessed 4/20/2020.Thyroid Disease & Pregnancy. Chang RY, Lang BH, Chan AC, et al; Evaluating the efficacy of primary treatment for graves’ disease complicated by thyrotoxic periodic paralysis. Int J Endocrinol. 20142014:949068. doi: 10.1155/2014/949068. Epub 2014 Aug 3. Dr Louise Newson, Reviewed by Dr Colin Tidy. ENDOCRINE DISORDERS- Hyperthyroidism. Tozzoli R, Bagnasco M, Giavarina D, et al; TSH receptor autoantibody immunoassay in patients with Graves’ disease: improvement of diagnostic accuracy over different generations of methods. Systematic review and meta-analysis. Autoimmun Rev. 2012 Dec12(2):107-13. doi: 10.1016/j.autrev.2012.07.003. Epub 2012 Jul 7. Kelly Brogan, Gisela Marcelino, Christina Pedro, Alyssa Siefert. Healing of Graves’ Disease Through Lifestyle Changes: A Case Report. 2019 Spring;33(2):4-11.

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Hypocalcemia Overview Calcium is vital for many important bodily functions like nerve transmission, bone structure, signaling between cells, and blood coagulation. Most of the body’s calcium is stored in bones, although some of it circulates in the blood. About 40% of the calcium in blood is bound to proteins in blood, mainly albumin. Protein-bound calcium acts as a reserve of calcium for the cells but has no active role in the body. Only unbound calcium influences the body’s functions. Unbound calcium has an electrical (ionic) charge, so it is also known as ionized calcium. Thus, hypocalcemia causes complications only when the level of ionized calcium is low.

Hypocalcemia or low levels of calcium occurs when a total serum calcium concentration is < 8.8 mg/dL (< 2.20 mmol/L) in the presence of normal plasma protein concentrations or a serum ionized calcium concentration < 4.7 mg/dL (< 1.17 mmol/L).

Calcium levels are regulated by hormones like a parathyroid hormone (PTH), Vitamin D, and calcitonin. Hypocalcemia is most commonly a consequence of Vitamin D inadequacy or hypoparathyroidism, or a resistance to these hormones and it has also been associated with many drugs as well.

Hypocalcemia can range from being asymptomatic in mild cases to life-threatening in acute cases. Manifestations include paresthesias, tetany, and, when severe, seizures, encephalopathy, and heart failure.

Diagnosis of hypocalcemia involves measurement of serum calcium with adjustment for serum albumin concentration. Treatment is administration of calcium, sometimes along with Vitamin D. Key Facts Usually seen in All age groups Gender affected Both men and women Body part(s) involved Bones Nerves Heart Kidneys Muscles Prevalence Worldwide: 0.4-33% (2022) Mimicking Conditions Hypomagnesemia Hypophosphatemia Hypoparathyroidism Pseudohypoparathyroidism Acute pancreatitis Acute renal failure Necessary health tests/imaging Laboratory tests: Total serum calcium, Intact parathyroid hormone, Serum alkaline phosphatase & Serum Vitamin D Imaging: Plain radiography, Computed tomography (CT) & Echocardiogram (ECG) Treatment Acute management of hypocalcemia: Intravenous calcium & Calcitriol Chronic management of hypocalcemia: Calcium carbonate, Calcium citrate & Thiazide diuretics Correcting Vitamin D inadequacy Replacement with PTH for hypoparathyroidism See All Symptoms Of Hypocalcemia

Hypocalcemia that develops gradually is most likely to be asymptomatic but acute hypocalcemia can result in severe symptoms requiring hospitalization. Some of the symptoms of hypocalcemia include:

Paresthesia (burning or prickling sensation) Tetany (involuntary muscle contractions) Cramps Circumoral numbness (absent or reduced sensory perception around the mouth) Seizures Twitching in your hands, face, and feet Numbness Tingling Depression Memory loss Scaly skin Changes in the nails Rough hair texture Delayed tooth eruption Increased dental caries Dysphagia (difficulty in swallowing) Abdominal pain Dyspnea (shortness of breath) Wheezing Subcapsular cataracts ( a type of cataract) Papilledema (swelling of the optic nerve)

Often, treating hypocalcemia may relieve these symptoms immediately. If hypocalcemia is caused by another condition, there might be additional symptoms like:

Laryngospasm (spasm of the vocal cords) Trouble remembering, learning new things, or concentrating Electrocardiographic changes that resemble heart attack Prolonged QT intervals on ECG Personality disturbances Heart failure

Heart failure can be prevented by leading a healthy life, read about tips that every cardiologist wants you to know. Click Now! Causes Of Hypocalcemia

The levels of calcium are controlled by Vitamin D, parathyroid hormone, calcitonin, and fibroblast growth factor-23 (FGF23).

Parathyroid hormone (PTH) enhances bone resorption and reabsorption of calcium. PTH also stimulates the conversion of Vitamin D (25 hydroxyvitamin D) to the active form (1,25-dihydroxy Vitamin D) and renal excretion of phosphate. Vitamin D stimulates intestinal absorption of calcium, renal absorption of calcium and phosphate and also bone reabsorption. Calcitonin, on the other hand, lowers levels of calcium by inhibiting bone resorption. FGF23 inhibits the conversion of Vitamin D to its active form, thus reducing intestinal calcium absorption.

A number of causes that can cause hypocalcemia are divided into three broad categories: Parathyroid hormone (PTH) deficiency High parathyroid hormone (PTH) Other causes

1. Parathyroid hormone (PTH) deficiency Hypoparathyroidism or low normal serum PTH occurs as a result of decreased PTH secretion, which can be due to the following reasons:

Post-surgical: This is the most common cause of hypoparathyroidism. It can occur after removal of thyroid gland (thyroidectomy), removal of parathyroid glands (parathyroidectomy), or radical neck surgery. The resulting hypoparathyroidism is usually transient but can also be permanent with subsequent transient or permanent hypocalcemia.

In cases surgery is required for severe hyperparathyroidism with significantly elevated PTH levels, the abrupt drop in PTH levels after surgery can lead to severe hypocalcemia causing significant calcium uptake into the bones. This condition is termed ‘Hungry Bone Syndrome."

Autoimmune: Autoantibodies against the parathyroid gland are the main cause of autoimmune hypoparathyroidism eventually leading to hypocalcemia.

Abnormal development of the parathyroid gland: Some genetic aberrations can cause abnormal parathyroid gland development. This can be isolated or associated with complex hereditary syndromes like DiGeorge syndrome.

Parathyroid gland destruction: This can also be due to rare diseases of the parathyroid gland like hemochromatosis (absorption of too much iron), Wilson disease (accumulation of excess copper in the liver), or irradiation. Human immunodeficiency virus (HIV) infection is also a rare cause of symptomatic hypoparathyroidism. 2. High PTH levels Absolute or relative Vitamin D deficiency: Vitamin D deficiency or resistance can occur because of lack of sun exposure, inadequate dietary intake, intestinal malabsorption (steatorrhea), live or kidney disease, osteomalacia and rickets.

Certain medications phenytoin, phenobarbital, and rifampin can also alter Vitamin D metabolism.

Vitamin D dependency results from the inability to convert Vitamin D to its active form or decreased responsiveness of end-organs to adequate levels of the active vitamin. This can lead to decreased calcium absorption and bone resorption. The resulting hypocalcemia leads to a compensatory increase in PTH secretion (secondary hyperparathyroidism).

Vitamin D deficiency is becoming a lifestyle problem all over the world. Learn about 6 signs and symptoms of Vitamin D deficiency. Tap To Read!

Chronic kidney disease: Long term kidney diseases can cause severe hypocalcemia due to abnormal renal loss of calcium and decreased renal conversion of Vitamin D to its active form.

This drives PTH secretion and can cause secondary hyperparathyroidism. However, due to impaired Vitamin D metabolism and high phosphorus level, the serum calcium remains low despite the high PTH.

Pseudohypoparathyroidism (PHP): It is an uncommon group of genetic disorders characterized not by hormone deficiency but by end organ resistance to PTH. It is characterized by hypocalcemia, hyperphosphatemia, and elevated PTH concentration. 3. Other causes Apart from the above mentioned causes, other causes that can lead to hypocalcemia include: Acute pancreatitis: Hypocalcemia is often associated with acute pancreatitis as inflammation of pancreas leads to calcium deposition in the abdominal cavity. Hypoproteinemia: Refers to lower-than-normal levels of protein in the body. This reduces the protein-bound fraction of serum calcium. Magnesium depletion: This can cause relative PTH deficiency and end-organ resistance to PTH action, usually when serum magnesium concentrations are < 1.0 mg/dL [< 0.5 mmol/L] leading to lower calcium levels. Severe sepsis or critical illness: Severe sepsis can lead to hypocalcemia through ways that are not clear. Proposed mechanisms include impaired PTH secretion, dysregulation of magnesium metabolism, and impaired calcitriol secretion. Recent reports also indicate that hypocalcemia is associated with severe Covid-19 infection. Hyperphosphatemia: This is an uncommon cause of hypocalcemia which is mostly caused by extravascular (outside a blood or lymph vessel) deposition of calcium phosphate products. Massive blood transfusion: Transfusion of >10 units of citrate-anticoagulated blood can cause hypocalcemia. Citrate binds with calcium leading to an acute decline in ionized calcium. Radiocontrast agents: These contain the chelating agent ethylenediaminetetraacetate (EDTA) which can decrease the concentration of bioavailable ionized calcium while total serum calcium concentrations remain unchanged. Pregnancy: Hypocalcemia is seen during pregnancy, mostly related to poor diet, extreme and persistent nausea, vomiting, or any underlying diseases. Did you know? High incidence of hypocalcemia has been seen in hospitalized patients with severe COVID-19 infection. More research is required if the serum calcium level could be used as a marker for prognosis in these cases. Few studies have also shown that patients with non-severe COVID-19 also tend to have low serum total calcium levels, implying that hypocalcemia is probably intrinsic to the disease. Read More! Risk Factors For Hypocalcemia

Hypocalcemia can be due to environmental or genetic factors. Some of the common risk factors in the development of hypocalcemia include: Vitamin D deficiency Parathyroid hormone (PTH) deficiency Hypomagnesemia Hypoalbuminemia Hyperphosphatemia Newborn babies with diabetic mothers Family history of parathyroid disorders

Less common risk factors in the development of hypocalcemia include: Surgical removal of parathyroid glands Side effects of medications Anion chelation (binding of negatively charged ions) Pseudohypoparathyroidism Hepatic (liver) disease Acute pancreatitis Increased protein binding Critical illness Severe sepsis History of gastrointestinal disorders Tumor lysis syndrome (TLS) is when a large number of cancer cells die within a short period, releasing their contents into the blood Osteoblastic metastases (characterized by deposition of new bone, seen in certain types of cancers) Anxiety disorders Did you know? Anxiety does not only affect the mind, but it can take a toll on the entire body. Being anxious often leads to increased heart rate, muscular tension, sweating, trembling and feelings of breathlessness. Read about 5 effective self-help tips to cope with anxiety. Click Here! Diagnosis Of Hypocalcemia

If the cause of hypocalcemia is not clinically obvious the most important investigation is to measure serum parathyroid hormone. A standard biochemical profile, a parathyroid hormone measurement, and a clinical history will usually provide the likely cause of hypocalcemia. The tests required to confirm the diagnosis include: Laboratory tests

1. Calcium Hypocalcemia is diagnosed by a total serum calcium concentration < 8.8 mg/dL (< 2.2 mmol/L). However, because low plasma protein can lower total, but not ionized, serum calcium, ionized calcium should be estimated based on serum albumin concentration.
2. Parathyroid hormone In true hypocalcemia, intact parathyroid hormone concentrations should be high in case of reduced negative feedback of calcium by parathyroids or low if these glands are the cause of the problem.

A high concentration of parathyroid hormone in the presence of normal renal function suggests a deficiency of Vitamin D or calcium malabsorption.

1. Alkaline phosphatase A raised serum alkaline phosphatase suggests osteomalacia as a result of Vitamin D deficiency. Parathyroid hormone stimulates clearance of phosphate through the kidneys, so serum phosphate should be low in non-parathyroid disease but high in parathyroid hormone deficiency.
2. Vitamin D Vitamin D concentrations are useful in confirming Vitamin D deficiency when it presents atypically, and it should be assessed in patients with possible pseudohypoparathyroidism.

Vitamin D helps our body absorb calcium and phosphorus. Diagnosing Vitamin D deficiency is very important and it may require complete workup. Read about Vitamin D profile. Click Now!

1. Magnesium Serum magnesium is important to estimate the normal functioning of the parathyroid gland. In hypomagnesemia, the release of parathyroid hormone is inhibited, leading to (potentially severe) hypocalcaemia. Recognition of hypomagnesemia is important because it is difficult to reverse hypocalcemia without getting back the magnesium levels to the normal range.
2. Phosphate Low to low normal serum phosphate levels can be due to deficient actions of Vitamin D, loss of calcium in the urine, and deposition of calcium in bone. Hypocalcemia with high normal to high serum phosphate levels includes chronic renal failure and hypoparathyroidism. Imaging These may include: Plain radiography: Radiographs can diagnose bone disorders like rickets or osteomalacia. It can also disclose the spread of certain tumors to the bones (eg : breast, prostate, and lungs), which can cause hypocalcemia. Computed tomography (CT): CT scans of the head may show calcification of basal ganglia (structures linked to the thalamus of the brain). Echocardiogram (ECG): The ECG hallmarks of hypocalcemia can be used to determine degree of hypocalcemia. Prevention Of Hypocalcemia

The main cause of hypocalcemia is the deficiency of calcium and Vitamin D. This can be prevented by:

Eating foods rich in calcium such as dairy products Choosing low-fat or fat-free options to reduce your risk of heart disease Including calcium in the diet every day. The dietary need for calcium is as follows: 2,000 mg per day for men and women 51 years of age and above 2,500 mg per day for men and women 19 to 50 years of age Adding multivitamin supplements along with the diet Understanding the Vitamin D need by consulting the doctor Increase your calcium intake, by adding food rich in Vitamin D to the diet. These include: Fatty fish like salmon and tuna Fortified orange juice Fortified milk Mushrooms Eggs Exposing oneself to enough sunlight to boost Vitamin D levels Making certain lifestyle changes like: Maintaining a healthy body weight Exercising regularly Limiting alcohol intake Restricting tobacco use Did you know? You don’t have to rely on meat and poultry to meet the body’s calcium requirements. Vegetarians can get their daily calcium by adding these super foods to their diet. Click Here To Read! Specialist To Visit

The primary cause of hypocalcemia is the abnormal functioning of the parathyroid gland and Vitamin D deficiency. The symptoms can be mild or can be due to an underlying disorder. The doctors that can help are:

General physician Endocrinologist Nephrologist

An endocrinologist who treats metabolic and hormone disorders. A nephrologist focuses on kidney diseases.

Seek medical advice from our world-class professionals to diagnose and treat the symptoms of hypocalcemia. Consult Now! Treatment Of Hypocalcemia

The treatment and management of hypocalcemia can be divided into acute and chronic (long-term) management. They are as follows: Acute management of hypocalcemia Acute hypocalcemia can result in severe symptoms requiring hospitalization. The treatment consists of: Intravenous calcium if serum calcium levels are below 1.9 mmol/L, ionized calcium levels are less than 1 mmol/L, or if patients are symptomatic. Oral calcium supplements and calcitriol (0.25 to 1 μg/day) as needed. Correction of magnesium deficiency or alkalosis.

Cardiac monitoring during intravenous calcium supplementation is necessary, especially for patients taking digoxin therapy. Read about 6 superfoods to keep your heart healthy. Click Now!

Chronic management of hypocalcemia Hypocalcemia that develops gradually is more likely to be asymptomatic, but some of the common symptoms include paresthesia (burning or prickling sensation), tetany (involuntary muscle contractions), cramps, muscle spasms, circumoral numbness (absent or reduced sensory perception around the mouth), and seizures. Its management consists of:

Calcium carbonate and calcium citrate supplements as they have the greatest proportion of elemental calcium (40% and 28% respectively) and are easily absorbed. Calcium supplement dosages are 1 to 2 g of elemental calcium 3 times daily. Elemental calcium supplements can be started at 500 mg to 1000 mg 3 times daily and titrated upward. Asymptomatic electrocardiography changes usually normalize with calcium and calcitriol supplementation. Magnesium supplementation corrects hypomagnesemia-related hypocalcemia. Thiazide diuretics decrease urinary calcium excretion by increasing distal renal tubular calcium reabsorption. Combining diuretics with a low-salt, low-phosphate diet, and phosphate binders is beneficial. Serum calcium, phosphorus, and creatinine should be measured weekly to monthly during initial dose adjustments, with quarterly or twice-yearly measurements once the therapy protocol has stabilized. Correcting Vitamin D inadequacy If hypocalcemia is due to malabsorption of Vitamin D, physicians should treat the underlying cause (eg implementing a gluten-free diet for patients with celiac disease). It consists of: Correcting the deficiency with ergocalciferol (Vitamin D2) or cholecalciferol (Vitamin D3). Ergocalciferol can be given in doses of 50,000 IU weekly or twice a week with an assessment of levels 3 months later, titrating up until a normal Vitamin D level is reached. Alternatively, 300,000 IU of ergocalciferol can be administered intramuscularly, with the first 2 injections spaced 3 months apart, followed by regular injections every 6 months. Administrating 100,000 IU of Vitamin D3 once every 3 months is also effective in maintaining adequate Vitamin D levels. Vitamin D analogs, particularly calcitriol or alfacalcidol, can be used. Replacement with PTH for hypoparathyroidism Replacement therapy with PTH is optional, as it corrects hypercalciuria (decreased amount of calcium in the urine) and potentially reduces the risk of nephrocalcinosis (too much calcium deposited in the kidneys), nephrolithiasis (mineral and salt deposition in the kidneys), and renal insufficiency. It also reduces the wide fluctuation in serum calcium.

Also, PTH reduces urinary calcium excretion that can help in the reduction of the dose of calcium and Vitamin D. PTH has also been studied and might become a valuable addition to current treatment options. Home-care For Hypocalcemia

Calcium plays a vital role in strengthening the bones and teeth. It also helps in the proper functioning of nerves and muscles. Mild cases of hypocalcemia can be managed by adding foods rich in calcium and certain lifestyle modifications. They are as follows: Milk or yogurt can be added to fruit smoothie Add greens to the soups or pasta dishes Make sure that the vegetable intake is increased in every meal Nuts and seeds such as almonds and sesame seeds can be added to the diet Use yogurt instead of vegetable dips Take Vitamin D and calcium supplements Expose the skin in natural sunlight Choose proper clothing and sunscreen to avoid complete blockage of sunlight Try UV lamps because when the skin is exposed to UV-B it produces its own Vitamin D Eat fortified foods Exercise regularly Talk to a doctor about medications that can cause hypocalcemia and avoid them Include egg yolks in diet Did you know? Eggs contain vitamins such as Vitamin A, B5, B12, B2, D, E, K, and B6 as well as minerals such as folate, phosphorus, selenium, calcium and zinc. Understand why you should have eggs every day. Tap To Read! Complications Of Hypocalcemia

Hypocalcemia can be asymptomatic in mild cases to presenting as an acute life-threatening crisis. It is to detect calcium regulating hormones like parathyroid hormone (PTH), Vitamin D, and calcitonin through their specific effects on the bowel, kidneys, and skeleton. The complications are as follows: Neurological complications Neurological complications occur due to the presence of co-morbidities and other electrolyte imbalances. They include: Seizures: Hypocalcemia can cause seizures because low ionized calcium concentrations in the cerebrospinal fluid (CSF) can cause increased excitability in the central nervous system. Status epilepticus: A seizure that lasts longer than 5 minutes, or having more than 1 seizure within a 5 minutes period, without returning to a normal level of consciousness between episodes. Uremic encephalopathy: It is cerebral dysfunction due to the accumulation of toxins resulting from acute or chronic renal failure. Studies have shown that this can be a complication of hypocalcemia. Cerebral edema: It is swelling of the brain. It is a relatively common phenomenon with numerous etiologies including hypocalcemia. Coma: With a Glasgow coma scale (used to objectively describe the extent of impaired consciousness in all types of acute medical and trauma patients) of less than 9/15 is seen in severe cases. Cardiac complications Numerous case reports associate hypocalcemia with life-threatening cardiac complications such as: Reversible heart failure: Hypocalcemia caused by hypoparathyroidism and hypomagnesemia can cause heart failure in severe cases that can be reversed. Torsades de pointes: It is a specific type of fast heart rhythm (heart rate over 100 beats a minute) that begins in the ventricles of the heart. Arrhythmias: When hypocalcemia is severe it can predispose to life-threatening arrhythmias. In such cases, a rapid admission to hospital and correction of electrolyte imbalance are needed.

An arrhythmia is a condition in which the heartbeat is irregular. Arrhythmia can occur along with a regular or an irregular heart rate. Read more about its signs, symptoms, causes, risk factors and treatment. Click To Read! Alternative Therapies For Hypocalcemia

There is no alternative treatment to hypocalcemia, but mild symptoms can be managed by adding food substances that are rich in calcium and Vitamin D. Some of them include:

1. Dairy products: Increase your intake (in moderation) of milk, cheese, cottage cheese, yogurt, and ice cream as they are rich in calcium.
2. Nuts: Seeds and nuts including almonds and sesame seeds act as vegan dietary sources of calcium.
3. Beans: In addition to being rich in fiber and protein, beans and lentils are good sources of calcium as well.
4. Broccoli: It provides a generous amount of calcium along with other minerals like beta-carotene (the precursor to Vitamin A) and Vitamins C and K1.
5. Black-eyed peas (lobia): One half-cup serving of black eyed peas contains 8 percent of the daily recommended intake of calcium.
6. Figs (anjeer): They are a good source of both calcium and potassium. These minerals can work together to improve bone density.
7. Oranges: They help in boosting the immune system and are rich in calcium and Vitamin D.
8. Salmon: Fatty fish and seafood are among the richest natural food sources of Vitamin D. Living With Hypocalcemia

Hypocalcemia is a metabolic disorder that can be asymptomatic or cause mild symptoms. In rare cases, it can lead to a severe life threatening crisis. The treatment of hypocalcemia depends on the cause, the severity, the presence of symptoms, and how rapidly it has developed (acute or chronic).

Most cases of hypocalcemia are clinically mild and require only supportive treatment and further laboratory evaluation. Some of the tips that can help manage mild cases are:

Eating calcium-rich foods Avoiding foods that are high in trans fat Reducing alcohol intake Making sure there is enough sun exposure Not being indoors most of the times Choosing sunscreens and clothes that does not block sun exposure completely Adding foods that are rich in Vitamin D to the diet Exercising regularly Quitting smoking Maintaining a healthy weight Taking Vitamin D and calcium supplements Understanding if there is an underlying cause by talking to a doctor Frequently Asked Questions What is the total concentration of calcium in the plasma? Which medications can cause hypocalcemia? What is the role of Vitamin D in hypocalcemia? What are the recommended dietary allowances (RDAs) for Vitamin D that is used currently? How is hypocalcemia related to pancreatitis? References Fong J, Khan A. Hypocalcemia: updates in diagnosis and management for primary care. Can Fam Physician. 2012. Catalano A, Chilà D, Bellone F, et al. Incidence of hypocalcemia and hypercalcemia in hospitalized patients: Is it changing?. J Clin Transl Endocrinol. 2018;13:9-13. Published 2018 May 29. Schafer AL, Shoback DM. Hypocalcemia: Diagnosis and Treatment. [Updated 2016 Jan 3]. In: Feingold KR, Anawalt B, Boyce A, et al., editors. Endotext [Internet]. South Dartmouth (MA): MDText.com, Inc.; 2000. Cooper MS, Gittoes NJ. Diagnosis and management of hypocalcaemia [published correction appears in BMJ. 2008 Jun 28. Duval M, Bach K, Masson D, Guimard C, Le Conte P, Trewick D. Is severe hypocalcemia immediately life-threatening? [published online ahead of print, 2018 Aug 31]. Endocr Connect. 2018. Aihara, Seishi et al. “Severe Hypocalcemia and Resulting Seizure Caused by Vitamin D Deficiency in an Older Patient Receiving Phenytoin: Eldecalcitol and Maxacalcitol Ointment as Potential Therapeutic Options for Hypocalcemia.” Case reports in nephrology vol. 2019. Cecchi E, Grossi F, Rossi M, Giglioli C, De Feo ML. Severe hypocalcemia and life-threatening ventricular arrhythmias: case report and proposal of a diagnostic and therapeutic algorithm. Clin Cases Miner Bone Metab. 2015 Sep-Dec;12.

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Hypoglycemia (low blood sugar) Also known as Low blood sugar Overview Hypoglycemia is a medical condition that results in lower blood glucose than normal. Glucose is the primary source of energy for our body. Low blood sugar can result in various symptoms such as irregular heartbeat, pale skin, irritability, unconsciousness, tiredness, and anxiety.

Hypoglycemia can be caused by antidiabetic medications or as a side effect of medications like quinine, clarithromycin, linezolid, doxycycline, ciprofloxacin, and metronidazole. Medical conditions such as liver and kidney disorders, adrenal or pituitary gland tumour, pancreatic tumours like insulinoma are also associated with hypoglycemia.

Hypoglycemic patients need immediate attention, especially when blood sugar levels are dangerously low. This condition can be treated by getting the blood sugar back to an average level. Immediate treatment would be eating or drinking 15 to 20 grams of fast-acting carbohydrates. These can include glucose tablets, juices, honey, jelly beans, or gumdrops. In case of severe hypoglycemia, one might require glucagon injection or intravenous glucose. Key Facts Usually seen in Diabetic patients on treatment Alcoholics, especially binge drinkers Pancreatic tumour patients (insulinoma) Patients with serious medical conditions Patients with prolonged diabetes People above the age of 60 Gender affected Both men and women Body part(s) involved Brain Kidney Liver Mimicking Conditions Stroke Transient ischemic stroke (TIA) Metabolic encephalopathy Drug overdose Diabetes mellitus Glaucoma Necessary health tests/imaging Physical examination Fasting blood sugar test Random blood sugar test Treatment Carbohydrate-rich foods Glucagon Octreotide Intravenous glucose Specialists to consult General physician Endocrinologist Symptoms Of Hypoglycemia

Low blood glucose level presents different symptoms from person to person. It tends to come quickly and can worsen if not treated in time. These symptoms include:

Mild to moderate Anxiety Feeling shaky or having jitters Sweating Hunger Dizziness/lightheadedness Feeling confused Increased irritability Unsteady heartbeat Heart palpitations Unable to see or speak properly Tiredness Prolonged hypoglycemia can affect brain functioning since the brain will stop receiving optimal glucose levels. This is a severe condition and needs immediate treatment. The symptoms include: Loss of consciousness Seizures Note: If hypoglycemia is severe and prolonged, it can be life threatening.

You can also experience a drop in glucose levels during your sleep. This results in low blood sugar that lasts for several hours and can cause serious issues. Even if you don’t wake up or notice these signs, low blood glucose levels can interfere with your sleeping pattern and affect your quality of life, work, and mood. Low blood sugar during sleep makes it tougher to notice the signs and symptoms of low blood glucose during the day. These symptoms include: Feeling irritated or foggy after waking up Sweating through your clothes or leaving your sheets damp Crying out or having nightmares Causes Of Hypoglycemia

Your body gets glucose from food rich in carbohydrates which are broken down by acids and enzymes into smaller pieces. In this process, glucose is absorbed from the intestine and passed into the bloodstream.

Insulin, a hormone made by the pancreas, moves glucose from the bloodstream into the cells, where it is used for energy and storage. The body should be able to maintain a constant state of blood glucose to facilitate normal functioning. After you eat, pancreatic cells release insulin to ensure that various body cells can uptake that sugar and use it optimally. The brain specifically relies on glucose to help it process information and work efficiently.

After the body uses an optimal glucose level, it stores the excess in the form of glycogen that can be used later when needed. When the blood sugar drops, the pancreas signals the liver to break down the stored glycogen and convert it into glucose. This travels through the bloodstream and replenishes the energy supply. Some conditions can disturb the blood sugar regulation and cause hypoglycemia, including:

1. Diabetes Blood sugar is supposed to circulate in the body and supply it with constant fuel. However, in conditions like diabetes, the body fails to produce enough insulin to move glucose into the cells or the cells themselves become resistant towards insulin. In type 1 diabetes, the body cannot produce enough insulin, whereas, in type 2 diabetes, the cells become less responsive towards the hormone. This results in high glucose levels in the blood that can lead to severe damage to your kidney, nerves, eyes, and other organs. However, in diabetic patients, hypoglycemia can occur when the blood glucose levels drop to below 70 milligrams per deciliter. The causes for the same are: To manage diabetes, patients are prescribed insulin or other medications that can effectively lower their blood sugar levels. Diabetic drugs such as sulfonylureas and meglitinides boost insulin in the body that absorbs blood glucose. However, if a patient takes excessive insulin or other drugs, the blood sugar can drop too low and lead to hypoglycemia. Skipping meals and exercising more than usual can also lead to the body using more glucose than usual, which can further cause hypoglycemia in diabetic patients.  
   A diabetic patient taking insulin during fasting is also likely to develop hypoglycemia. If you are sick, you may not eat as much as needed to combat the insulin, lowering your blood glucose further. Drinking alcohol can also have a detrimental effect and cause hypoglycemia. Alcohol makes it more challenging for the body to maintain its blood glucose levels, especially if there has been no food intake in a while. Alcohol also prevents you from identifying the symptoms of low blood sugar, leading to severe complications. It is essential for people diagnosed with diabetes to be educated about diabetes and accordingly balance their food intake, insulin and daily activities. Working with a doctor is the best way to prevent the occurrence of hypoglycemia.
2. Specific medications Hypoglycemia can be a side effect of certain medications such as: Quinine, which is used to treat malaria is a potent stimulator that leads to the release of insulin from the pancreatic beta cells. It increases the uptake of glucose by muscles and cells. Quinine also stimulates the production of glycogen that stores up glucose. This can lead to low blood glucose levels. Antibiotics such as fluoroquinolones used to treat pneumonia and urinary tract infections also cause low blood sugar or high blood sugar. Medications including clarithromycin, linezolid, and doxycycline are other antibiotics linked with hypoglycemia. When diabetic patients take sulfonylureas and antimicrobials such as ciprofloxacin and metronidazole are at a high risk of developing hypoglycemia. Children and people with kidney failure are at an increased risk of developing medication-induced low blood glucose. Other commonly used drugs that are associated with hypoglycemia are antihypertensive medications including angiotensin converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), beta blockers, and painkillers like indomethacin.
3. Alcohol If a person consumes excessive alcohol every day for a few days which is coupled with less intake of food, it can lead to alcohol induced hypoglycemia.
4. Hepatitis Hepatitis is a medical condition that causes inflammation of the liver. The liver is responsible for breaking down stored glycogen and converting it into glucose when the body needs energy. If the liver fails to produce or release ample insulin, it can be difficult for the body to maintain blood glucose levels leading to hypoglycemia. Any type of liver disease can lead to insulin resistance.
5. Adrenal or pituitary gland tumour Disorders and tumours of the pituitary or adrenal gland can disturb the balance between the hormones that influence blood glucose levels and hence cause hypoglycemia.
6. Pancreatic tumours Pancreatic tumours (especially insulinoma) cause the organ to release too much insulin that can cause the cells to take up excessive glucose. If the insulin levels are too high, the blood glucose level will decline and lead to hypoglycemia. This tumour continues to produce insulin even when the blood sugar level is too low. This can lead to serious side effects of hypoglycemia.
7. Kidney disorders The kidney is responsible for excreting waste and toxins from the body. Kidney failure can affect the clearance rate of waste products and cause the build-up of medications that can lead to hypoglycemia. Diabetic patients who are on insulin should be particularly cautious after development of diabetic nephropathy as they have higher chances of development of hypoglycemia due to reduced clearance of insulin. Hypoglycemia, at times, can be the initial presentation of new onset diabetic nephropathy.
8. Critical illness Among hospitalised patients, serious illnesses such as kidney disease, liver disease, cardiac failure and sepsis are common causes of hypoglycemia.
9. Reactive hypoglycemia Sometimes, if you eat food that has a high sugar quantity, your body can end up producing excessive insulin to manage the extra sugar. This excessive insulin can lead to hypoglycemia and is called postprandial or reactive hypoglycemia. It can also occur in people who have had stomach bypass surgery. Risk Factors For Hypoglycemia

You may be at a higher risk of developing hypoglycemia, if you: Use insulin or take oral anti-diabetic drugs such as sulfonylureas Are above 60 years of age Have an impaired kidney or liver function Are unaware of the symptoms of hypoglycemia Take multiple medications that interact with each other Suffer from any disability Consume excess alcohol Suffer from diabetes from a long time Have pancreatic tumour Suffer from eating disorders such as anorexia Have diabetic autonomic neuropathy Diagnosis Of Hypoglycemia

1. Blood glucose monitor (glucometer) If you have diabetes and suspect that you have hypoglycemia, check your blood sugar level right away. Diabetic patients are usually provided with a glucometer which is a small electronic device. These devices can check your blood glucose level within a minute. To use this device, prick your finger for a small drop of blood and place it on the test strip. This test strip will be inserted in the glucometer that will evaluate your blood glucose level. If you don’t have your glucometer, talk to your doctor about getting one. These glucometers are great tools that help diabetic patients balance their insulin and food intake.

If you experience repeated episodes of low blood glucose, visit your doctor to determine the reason. Your doctor can help you devise a more efficient plan to keep your diabetes in check without leading to hypoglycemia.

1. Physical examination If you don’t have diabetes but suspect that you have signs and symptoms of hypoglycemia, talk to your doctor. Your doctor will perform a physical exam. Whipple’s triad which is a collection of three criteria that can suggest the presence of a pancreatic insulinoma can also be looked into. It consists of assessing : Fasting hypoglycemia (<50 mg/dL) Symptoms of hypoglycemia Immediate relief of symptoms after the administration of intravenous (IV) glucose
2. Random blood glucose test A random blood glucose test measures the glucose level in the blood at the time of the test. The results of this test depend on the last time you ate and doesn’t require fasting. For people with normal blood sugar regulation, the blood glucose level should be relatively stable at any time. But if you have a disorder that is disturbing your blood sugar level, then the random blood glucose test will help your doctor determine the cause.
3. Fasting blood glucose test A fasting blood glucose test measures the blood glucose level present in your blood after an overnight fast. Usually, a fast of 10-12 hours is recommended before the test, and it can help diagnose diabetes, prediabetes and hypoglycemia. A fasting blood glucose level below 70 mg/dL is an indication of hypoglycemia.

Learn how to use blood glucose monitors and various tips to buy a glucometer. Read Here!

Prevention Of Hypoglycemia

The key to preventing hypoglycemia is managing your diabetes. Understanding the link between insulin and food will help you prevent a hypoglycemic episode. It requires following the instructions of your healthcare provider and not skipping your meals. Follow your doctor’s orders about daily exercise and don’t exceed the advised limit. Diabetic patients should also measure their blood sugar before and after meals, exercise and before sleeping. Maintaining a log book for the same can be very handy. In case you have a hypoglycemic event, note down what you ate before that and the amount of insulin you took, along with other details. This will help your doctor decide on a more effective plan for managing your diabetes. If you don’t have diabetes and have infrequent hypoglycemia episodes, make sure not to skip meals. Take in plenty of fruits and carbohydrate-rich foods so that your body has enough carbs to burn. In case your symptoms don’t improve, talk to a doctor to rule out any medical condition. Specialist To Visit

You should visit your doctor if you are experiencing symptoms such as jitters, anxiety, lightheadedness, confusion, brain fog, lethargy, heart palpitations, difficulty in seeing or speaking, and unconsciousness. These symptoms might indicate the possibility of hypoglycemia and should be treated right away. You can consult the following doctors for a diagnosis. General physician Endocrinologist Sometimes, a patient may present with loss of consciousness which requires emergency medical care and hospitalisation and also administration of intravenous glucose to maintain glucose levels in the normal range. Click To Consult! Treatment Of Hypoglycemia

Hypoglycemia can be managed through various methods. The best approach is decided on an individual’s age, overall wellbeing, symptoms, underlying cause, and severity of the disorder.

1. Carbohydrate-rich diet  
   If your blood glucose level is low, immediate treatment would be eating something rich in carbohydrates. So, keep snacks high in carbs such as glucose tablets, juices, honey, jelly beans, hard candies, gumdrops or non-diet soda, with you all the time. The American Diabetes Association suggests that the snacks should have around 15 grams of carbohydrates.

Diabetic patients can take glucose tablets that act rapidly and increase the blood sugar level. After taking a carbohydrate-rich snack, wait for 15 to 20 minutes and check your glucose level. If your blood glucose levels haven’t increased, take another 15 grams of carbohydrate and repeat the procedure until the blood sugar starts to rise. Don’t overeat to ensure that your blood sugar level doesn’t increase too high.

1. Glucagon hormone Glucagon is a hormone that is administered in emergencies. It raises blood sugar levels rapidly and can be life-saving for someone who is unconscious or unable to eat and drink. It is only available as prescription medicine. Glucagon comes in an emergency syringe kit (for subcutaneous or intramuscular routes) or as a nasal spray. After 15 minutes of being given glucagon, the person should be alert enough to eat. In case someone isn’t alert even after 15 minutes of administering glucagon, call emergency medical care.
2. Octreotide This somatostatin analogue can be used to suppress insulin secretion in sulfonylurea induced hypoglycemia. It raises plasma glucose concentrations only transiently and the patient should therefore be urged to eat as soon as possible to replete glycogen stores.
3. Treatment of underlying conditions A tumour in the pancreas is treated by surgical removal of the tumour. In some cases, partial removal of the pancreas might be required. Home-care For Hypoglycemia

Tips for diabetics Check your blood glucose level before and after a meal. You should also check your blood sugar before going to bed. Follow your doctor’s instructions and take your insulin as and when instructed. Do not take extra insulin without your doctor’s advice. In case you exercise more than usual, make sure to balance out the loss of glucose by taking in the required carbohydrates. Tips for non-diabetics List down the food you ate, the amount you exercised, the symptoms you experienced and the time it took you for the signs to go away. These records will help your doctor diagnose your problem. The best way of handling hypoglycemia is to determine the cause behind it. Along with that, make sure not to skip meals and get an ample amount of carbohydrates. Learn about the 15-15 rule and much more about prevention and emergency management of hypoglycemia.

Complications Of Hypoglycemia

Untreated hypoglycemia can affect brain functioning and lead to severe side effects.

1. Seizures The brain needs glucose to function. Any significant change in blood sugar directly influences the signalling mechanism of the brain. This allows seizures to occur quickly. Prolonged hypoglycemia can give rise to a seizure known as a tonic-clonic seizure. This involves the entire body and leads to loss of consciousness and violent muscle contractions.
2. Diabetic coma When the brain doesn’t receive enough glucose to function properly, it can cause you to pass out and lose consciousness. A diabetic coma occurs when a person with diabetes loses consciousness. Hypoglycemia as a result of excessive insulin or not getting enough food can be critical. Passing out due to hypoglycemia is an emergency medical situation and needs attention right away.

The symptoms of diabetic coma include headache, confusion, heart palpitations, vomiting, weakness, and dizziness. If you are diabetic and at risk of developing hypoglycemia, it is advisable to talk to your loved ones and friends and teach them how to administer treatment in such cases.

Losing consciousness due to hypoglycemia means that you will be unable to eat or drink emergency glucose tablets. In such cases, injections like glucagon can be life-saving. After gaining consciousness or if there is no response to glucagon injection, call your doctor immediately.

1. Hypoglycemia unawareness The symptoms that help alert you about hypoglycemia may be unpleasant, but they are also instrumental. These symptoms tell you to drink or eat carbohydrates that bring up your glucose levels to normal. But several people are unable to identify these symptoms. This is called hypoglycemia unawareness. It can primarily occur in people who have had repeated episodes of hypoglycemia. This results in the body adapting to the early warning signs and subsequently ignoring them after repeated episodes.

Hypoglycemia unawareness is especially dangerous since your body will stop telling you when your blood sugar level drops, and hence you won’t be able to treat it. People with hypoglycemia unawareness are also less likely to wake up when their blood sugar drops at night. They need to be extra careful and check their blood sugar frequently. This step is significant when carrying out tasks that require attention such as driving. Such patients can have a continuous glucose monitor that will sound an alarm when the blood sugar drops. Hypoglycemia unawareness is reversible by as little as 2-3 weeks of scrupulous avoidance of hypoglycemia in most affected patients. Alternative Therapies For Hypoglycemia

1. Diet Your diet plays the most critical role in managing your blood sugar levels. Diabetic or non-diabetic, you need to have a balanced diet and not skip meals in between. If you are diabetic, keep carbohydrate-rich food in hand to avoid hypoglycemic food. Increase your soluble fibre intake and eat foods such as flax seeds and oat barns. Soluble fibre can help slow down the rate at which sugar enters the bloodstream and helps manage blood sugar throughout the date.
2. Supplements You can address nutritional deficiencies by taking a daily multivitamin containing vitamin A, E, C and B complex. You can also take omega-3 fatty acids and alpha-lipoic acid for antioxidants. Make sure to consult your doctor before taking any supplements.
3. Mid-meal snacking In cases of reactive hypoglycemia, the body reacts to meals with excessive sugar by releasing more insulin than required. This results in hypoglycemia. To avoid such conditions, it is advisable to cut down on eating high sugar meals. Instead, you can have small frequent meals that are balanced and rich in protein and carbohydrates.
4. Fuel during exercise Light exercises are a great way to manage your blood sugar. In patients with diabetes, ADA recommends 150 minutes of moderate physical activity per week for at least 3 days & with no gaps longer than 2 days. Follow your doctor’s advice about your daily exercise limit. If you work out more than usual, make sure to eat after your workout or have a small snack between your workout to ensure that your blood sugar stays up. If you are diabetic, it is essential to avoid overdoing your workout until you have a good handle on balancing your sugar level and insulin dosage. Living With Hypoglycemia

Having episodes of hypoglycemia can cause stress and anxiety. Complications like losing consciousness are especially scary to go through. Diabetic patients who have repeated episodes of hypoglycemia may become scared of taking insulin in the future and try to reduce the dosage without proper medical advice. This can result in further complications that can be life-threatening. Recognising the signs of hypoglycemia and taking timely action is the best way of preventing hypoglycemic episodes.

Teach people how to help Inform and teach the people around you such as your co-workers, friends and family, about hypoglycemia. If the people around you can identify and look out for signs of hypoglycemia, they can lend you support and alert you about the signs. It’s equally vital to teach them how to administer emergency glucagon so they can avert a potentially life-threatening situation.

Plan your meals ahead If you are on a trip or aware of a busy day ahead, make sure that you plan your meals ahead of time. Do not skip meals in between.

Carry glucose-rich snacks Always carry a sugar candy or bar handy while travelling or place one near bed to avoid panic during a hypoglycemia episode. If you are diabetic, then carrying glucose-rich snacks that you can eat after taking insulin, can help maintain the glucose level.

Wear a medical ID If you are prone to develop hypoglycemic episodes, your doctor may advise you to wear a medical ID to help people identify that you have diabetes. This will help quick medical administration, especially if you are not around the people who know you.

Take extra care when you are sick Being sick might make you feel like eating less food or may not be able to keep the food down due to nausea and vomiting. Make sure to adjust your insulin level according to your food intake. Frequently Asked Questions What level of blood sugar is considered to be low blood sugar? How can I check my blood glucose level regularly? How often should I check my blood glucose level? What is the 15-15 rule? What is a continuous glucose monitor? How is glucagon administered? Can I drive if I have hypoglycemia? References Parekh TM, Raji M, Lin YL, Tan A, Kuo YF, Goodwin JS. Hypoglycemia after antimicrobial drug prescription for older patients using sulfonylureas. JAMA Intern Med. 2014;174(10):1605-1612. American Diabetes Association; 2. Classification and Diagnosis of Diabetes: Standards of Medical Care in Diabetes—2020. Diabetes Care 1 January 2020; 43 (Supplement\_1): S14–S31. Low blood glucose (hypoglycemia). National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Last Reviewed in July, 2021. Hypoglycemia (low blood sugar). Blood Sugar Testing and Control. American Diabetes Association. Mahoney GK, Henk HJ, McCoy RG. Severe Hypoglycemia Attributable to Intensive Glucose-Lowering Therapy Among US Adults With Diabetes: Population-Based Modeling Study, 2011-2014. Mayo Clin Proc. 2019;94(9):1731-1742. Low blood glucose (hypoglycemia) complications. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Last Reviewed in July, 2021.

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Hypothyroidism Also known as Underactive thyroid Overview Hypothyroidism is a condition in which the thyroid gland does not produce sufficient quantities of thyroxine, a thyroid hormone. Due to the low levels of this hormone, the person may experience various symptoms such as fatigue, unexplained weight gain, difficulty losing weight, reduced tolerance to cold, puffiness of the face, hoarseness of voice, excessive hair fall, muscle and joint pains, fertility problems, or depression.

There are numerous conditions that can lead to a low thyroid level such as autoimmune thyroiditis, iodine deficiency, pregnancy, radiation therapy, and surgical removal of the thyroid gland. Although this condition is common in women, men can also suffer from it.

Fortunately, hypothyroidism is generally manageable with inexpensive medications after timely diagnosis. If left untreated, it may lead to complications such as obesity, goiter, infertility, and heart failure. Hence, patients especially those at high risk should keep a close watch on the symptoms of hypothyroidism. 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 Thyroid gland Heart Peripheral nerves Joints Reproductive system Mimicking Conditions Addison’s disease Chronic fatigue syndrome Dysmenorrhea Polycystic ovarian disease (PCOD) Anemia Necessary health tests/imaging Blood tests: Thyroid stimulating hormone (TSH), Thyroxine total - T4, Thyroxine total - T3, Anti thyroglobulin antibody & Thyroxine binding globulin Imaging tests: Thyroid scan, Ultrasound & Radioactive iodine uptake test Treatment Thyroxine Specialists to consult General physician Endocrinologist Symptoms Of Hypothyroidism

Initially, hypothyroidism may not cause any symptoms. The symptoms often appear gradually and may not be noticeable in the earlier stages. There are various symptoms associated with hypothyroidism such as: Chronic fatigue Unexplained weight gain and difficulty losing weight Puffiness of the face Hoarseness of voice Disturbances in the menstrual cycle in women Fertility problems in women of child-bearing age Excessive hair fall, hair may become brittle, dry, and break easily Muscle and joint pains Elevated blood cholesterol levels Slower heartbeats Constipation Dry skin Impaired memory Depression Reduced tolerance to cold Thyroid gland enlargement (Goiter) Hypothyroidism can also affect infants, young children, or teens, causing symptoms such as: Stunted growth Delayed onset of puberty Lethargy and sleepiness Note: Infants may be born without a thyroid gland or with a poor-functioning gland and cause specific symptoms such as constipation, difficulty breathing, protruding tongue, and jaundice. Causes Of Hypothyroidism

There are two hormones involved in hypothyroidism –thyroid stimulating hormone (TSH) and thyroxine. TSH is a hormone secreted by the pituitary gland in the brain and its function is to stimulate the thyroid gland to produce thyroxine.

Hypothyroidism is a hormonal disorder where the thyroid gland does not produce sufficient quantities of the thyroid hormone. Hypothyroidism is clinically evaluated by the levels of TSH and free thyroxine concentrations. TSH levels are higher than than the reference range while thyroxine levels are below the reference range.

A. Clinical primary hypothyroidism Primary hypothyroidism is caused by a problem with the thyroid gland itself. Hypothyroidism is caused when the thyroid gland does not produce sufficient quantities of the thyroid hormone or thyroxine. Multiple causes may lead to the underproduction of the thyroid hormone such as:

1. Autoimmune disease In this, the immune system makes antibodies that attack the thyroid gland. As a result, large numbers of white blood cells, which are part of the immune system, attack the gland and damage it and cause insufficient production of thyroid hormones. The most common forms are Hashimoto’s thyroiditis (chronic lymphocytic thyroiditis) and atrophic thyroiditis.
2. Iodine deficiency Iodine is an essential mineral required by the thyroid gland to produce thyroxine. A deficiency of iodine in the diet causes the underproduction of the thyroid hormone.
3. Pregnancy During or post pregnancy, there may be an inflammation of the thyroid gland, which may affect the production of the thyroid hormone. This condition is known as postpartum thyroiditis. However, most women with postpartum thyroiditis regain their normal thyroid function.
4. Surgical removal of thyroid gland In some cases, people with hyperthyroidism, thyroid nodules, small thyroid cancers, large goiter or Graves’ disease, need to have part or all of their thyroid gland removed surgically. If the whole thyroid is removed, then it can lead to hypothyroidism as no thyroid hormones are produced. However, if only a part of the gland is removed, it may be possible to make enough thyroid hormones to ensure proper functioning of the body.
5. Medications Certain medicines such as antipsychotic drugs like lithium, antiarrhythmic drugs like amiodarone and interleukins & anti-cancer medicines, affect thyroid hormone production. Medicines used to treat hyperthyroidism can cause paradoxical hypothyroidism.
6. Radiation therapy Ionizing radiation is commonly prescribed to people who have hyperthyroidism or cancer of the head or neck like lymphoma or leukemia. But in some cases, exposure to the ionizing radiation exposure during the treatment of certain cancers or hyperthyroidism can damage the thyroid gland and lead to hypothyroidism.

B. Central hypothyroidism Central hypothyroidism is defined as hypothyroidism due to insufficient stimulation by TSH of an otherwise normal thyroid gland. It can be secondary hypothyroidism (pituitary) or tertiary hypothyroidism (hypothalamus) in origin.

Rarely, the hypothalamus under-secretes the thyrotropin-releasing hormone (TRH). This affects the secretion of TSH by the pituitary gland, causing hypothyroidism. This is also known as tertiary hypothyroidism.

C. Congenital hypothyroidism Some babies are born with a thyroid gland that is not fully developed or does not function properly, which causes hypothyroidism at birth. Risk Factors For Hypothyroidism

The following risk factors are associated with hypothyroidism.

1. Gender: Women are more likely to develop hypothyroidism than men.
2. Age: Hypothyroidism is more common among people older than 60 years.
3. Family history: The risk is high if you have a family history of hypothyroidism or other thyroid-related disorders.
4. Race: White or Asian races are more likely to develop this disorder.
5. Medical conditions: Several health problems that can increase your risk of hyperthyroidism are: Type 1 or type 2 diabetes Multiple sclerosis Rheumatoid arthritis Sjogren’s syndrome Lupus Celiac disease Addison’s disease Pernicious anemia Vitiligo Bipolar disorder Down syndrome Turner syndrome Diagnosis Of Hypothyroidism

The tests essential to confirm a diagnosis of hypothyroidism are:

A. Blood tests Some of the common blood tests used to diagnose hypothyroidism incude thyroid stimulating hormone (TSH) test & thyroxine (T3 & T4) test. 1. Thyroid stimulating hormone (TSH) This is the most important and sensitive test for hypothyroidism. It measures how much of the thyroxine (T4) hormone the thyroid gland is being asked to make. An abnormally high TSH means the thyroid gland is being asked to make more T4 because there isn’t enough T4 in the blood. This indicates hypothyroidism. TSH also helps the doctor to determine the right dosage of medication, both initially and over time.

1. Thyroxine total (T4) Most of the T4 in the blood is attached to a protein called thyroxine-binding globulin. The “bound” T4 can’t get into body cells. Only about 1%–2% of T4 in the blood is unattached (“free”) and can get into cells. The free T4 and the free T4 index are both simple blood tests that measure how much unattached T4 is in the blood and available to get into cells. In hypothyroidism, the thyroxine levels are lower than normal.
2. Thyroxine Total (T3) The total T3 includes both bound and free forms circulating in the blood and can be affected by the amount of protein available in the blood to bind to them. The T3 hormone can be measured as free T3 or total T3. Triiodothyronine (T3) total test measures the total levels (both free and bound forms) of triiodothyronine (T3) hormone in the blood and is usually done as a part of the thyroid profile total test. Its levels may be normal or low in hypothyroidism.

Along with these three tests, supporting tests may be required to evaluate and monitor the condition such as: Anti thyroglobulin antibody Thyroxine binding globulin Also, all newborn babies are routinely screened for thyroid hormone deficiency to rule out congenital hypothyroidism.

B. Imaging tests The following imaging tests can be used to find the cause of hypothyroidism:

1. Thyroid scan Thyroid scan can help to evaluate the size, shape, and position of the thyroid gland. This test uses a small amount of radioactive iodine to help diagnose the cause of hypothyroidism and check for thyroid nodules as well.
2. Ultrasound Ultrasound of the thyroid is used to closely look at thyroid nodules. Thyroid nodules are solid or fluid-filled lumps that form within the thyroid gland. Ultrasound can also help the doctor to evaluate if the nodules are cancerous in nature.
3. Radioactive iodine uptake test A radioactive iodine uptake test also called a thyroid uptake test, measures how much radioactive iodine the thyroid takes up from the blood after swallowing a small amount of it. It can help check thyroid function and find the cause of hypothyroidism.

Read more about thyroid function tests. Click Here!

Celebs affected Gigi Hadid American supermodel Gigi Hadid has Hashimoto’s thyroiditis. She has been able to manage her condition with medications. Gina Rodriguez Golden Globe Award winning actress Gina Rodriguez was diagnosed with hypothyroidism at the age of 19 and has coped with symptoms such as weight gain and tiredness. Prevention Of Hypothyroidism

There is no specific way to prevent hypothyroidism. The best way to prevent complications of the disease or having the symptoms impact your life in a serious way is to watch for signs of hypothyroidism. Those who are at a higher risk for hypothyroidism must be more watchful of their symptoms. If you experience any of the symptoms, it is best to consult your doctor. Hypothyroidism is quite manageable if diagnosed and treated early. Specialist To Visit

You must visit a doctor, if you have symptoms such as weight gain, hairfall, enlarged thyroid gland, swelling of the face and the limbs, weakness, fatigue, poor concentration, decreased libido, and difficulty getting pregnant. All these are possible symptoms of hypothyroidism. If you suspect hypothyroidism, you may consult with: General physician Endocrinologist Women may need to consult obstetrician and gynecologistother, in case of specific symptoms such as hair fall, weight gain, fatigue & difficulty in getting pregnant. Consult India’s best doctor here with a single click. Consult Now!

Treatment Of Hypothyroidism

Hypothyroidism is treated by prescribing a synthetic version of the thyroxine hormone. The prescribed medicine must be taken every day in the morning or as prescribed by the physician. Certain medications such as iron and calcium supplements or aluminum hydroxide, which is found in some antacids, may interfere with the absorption of thyroxine.

The dosage may need to be adjusted based on the close monitoring of the TSH and thyroxine levels. The dosage of the thyroid medicine is decided by the doctor depending upon the age, cause of hypothyroidism, other concomitant health conditions or any other medications being taken by the patient. For example, the elderly population is started on a lower dose whereas a higher dose may be needed, if gastrointestinal diseases like celiac disease hamper the absorption of the medicine.

The only dangers of thyroxine are caused by taking too little or too much of the medicine. If you take too little, your hypothyroidism will continue. If you take too much, you’ll develop the symptoms of hyperthyroidism—an overactive thyroid gland. The most common symptoms of too much thyroid hormone are fatigue, inability to sleep, greater appetite, nervousness, intolerance to heat, shortness of breath, and a racing heart. Patients who have hyperthyroidism symptoms during thyroxine replacement therapy, should have their TSH levels tested. If it is low, indicating too much thyroid hormone, their dose needs to be lowered. Did you know? If you have hypothyroidism and are on too much replacement therapy (levothyroxine) to treat the condition, then this may result in bone loss (osteoporosis) and atrial fibrillation. To prevent this, the thyroxine replacement (levothyroxine) must be carefully monitored to ensure thyroid levels do not become too high. Consult your doctor for the right treatment. Click To Consult! Home-care For Hypothyroidism

If you have hypothyroidism, you will be prescribed a synthetic version of the thyroid hormone to combat the deficiency. Here are a few tips to help you take the medicines & improve your symptoms. It is important to take the tablet daily, preferably first thing in the morning, for as long as advised by your doctor. You can take the tablet preferably with water and on an empty stomach. Maintain a gap of at least 4 hours between the thyroid medicine and other medicines such as calcium or iron supplements. To keep track of your pills, you may store them in an airtight labeled box which has labels for each day of the week. This would help you keep a track of your doses and whether you have missed any. Diet tips Taking a balanced diet that fulfills the body’s requirements of iodine may help hypothyroidism caused by iodine deficiency. Consume iodine-fortified table salt as it is a good way of including iodine in your diet. Shellfish, lean proteins & whole grains are good sources of iodine. However, in case of Hashimoto’s disease or other types of autoimmune thyroid diseases, patients may be sensitive to side effects of iodine. Eating foods that have large amounts of iodine may actually cause or worsen hypothyroidism. Taking iodine supplements might also have the same effect. Hence, in such cases, it is important to consult a doctor about which foods to limit or avoid and whether one can take iodine supplements or other medications like cough syrups which might contain iodine. Eat a low fat diet and include foods rich in calcium and Vitamin D such as milk and milk products & oily fish. Add leaner proteins such as chicken breast or fish. Avoid certain vegetables like cabbage, broccoli or cauliflower as these are known to interfere with the functioning of the thyroid gland.  
Limit soy food products like tofu, vegan cheese and meat products, soy milk, soybeans, and soy sauce. Soy is known to hinder the absorption of thyroid hormone. Hence, avoid eating or drinking soy-based foods for at least four hours before and after taking the medication. Like soy, fiber can also interfere with hormone absorption. Since fiber is vital for the body do not avoid it completely. Instead, avoid taking the medication within several hours of eating high fiber foods. Incorporating a few diet-related changes can help you manage your condition better as well as lead a healthy life. Here are a few diet tips for people with hypothyroidism that can help control the condition. Click To Read!

Exercise and yoga Daily exercise and yoga can help boost the body’s metabolic rate and ease the symptoms of hypothyroidism. Regular exercise may also help battle complications of hypothyroidism including obesity, and heart-related issues. You can also engage in light exercise programs to boost your metabolism and help with the symptoms of hypothyroidism.

Some yoga asanas which are helpful in thyroid issues are: Sarvangasana Halasana Setubandhasana Sirsasana Note: Please perform these asanas under expert supervision only.

Akshar, founder & chairman, Akshar yoga suggests some yoga asanas for hypothyroidism with their benefits and steps to do the asanas. Read To Know!

Complications Of Hypothyroidism Hypothyroidism can cause many health complications such as:

1. Goiter Constant stimulation of the thyroid gland to produce more hormones may cause the gland to swell and become larger. This is known as goiter. It appears as a cosmetic deformity in the neck and may also cause trouble while breathing or swallowing.
2. Obesity Even with a reduced appetite, people with hypothyroidism tend to put on weight and find it difficult to lose weight because of a slower basal metabolic rate. This predisposes them to obesity.
3. Cardiac problems Hypothyroidism is associated with an increased risk of heart diseases or heart failure. It elevates the levels of low-density lipoprotein (LDL) which is bad for heart health.
4. Infertility In women, hypothyroidism can interfere with the normal cycle of production of eggs or the ovulation process and cause challenges when trying to conceive. In men, an underactive thyroid is known to cause abnormal sperm morphology and erectile dysfunction.
5. Peripheral neuropathy Long term hypothyroidism can damage the peripheral nerves which carry information from the brain and spinal cord to the rest of the body. This causes pain, tingling, or numbness in the extremities.
6. Myxedema This is a rare and serious complication which happens when the thyroid levels in the body are extremely low. The patient may become lethargic, drowsy, and in severe forms may slip into a coma known as myxedema coma, which can be life-threatening.
7. Balance problems Hypothyroidism can also present with balance problems especially in older women.
8. Joint pain Low levels of thyroid hormone can cause joint and muscle pain, as well as tendonitis which is inflammation of a tendon, the thick fibrous cords that attach muscle to bone.
9. Mental health issues Hypothyroidism can cause slow mental functioning as well as memory or concentration lapses. Depression may also occur in hypothyroidism and may become more severe with time.
10. Birth defects Women with untreated thyroid disease are more likely to give birth to babies with higher risk of birth defects. These children are also likely to have intellectual and developmental problems. Infants with congenital hypothyroidism, which is not treated timely, are at risk of both physical and mental development.

Read more about the complications caused by hypothyroidism. Click To Read!

Alternative Therapies for Hypothyroidism

Ayurveda Ayurvedic preparations of triphala, guggulu, and punarnavadi have been found to be helpful in treating hypothyroidism.

Homeopathy Homeopathy preparations, such as calcarea carbonica, are found to be effective in the treatment of hypothyroidism. Living With Hypothyroidism

A diagnosis of hypothyroidism may often be a cause of anxiety for the patient as it comes with multiple health symptoms. Patients often struggle with obesity and have poor energy levels. They have heart problems such as increased cholesterol levels and heart failure. Women of reproductive age may also face problems in conceiving a child due to hypothyroidism. Hypothyroidism is also known to cause chronic depression. All this may affect patients’ quality of life. Fortunately, hypothyroidism is generally manageable with inexpensive medications. If your thyroid hormone levels are low, a simple treatment along with the following tips could greatly improve your quality of life.

1. Lose weight If you have low thyroid levels, you may have decreased metabolic rate and a higher body mass index (BMI), which can put you at risk of obesity. And if you are overweight, you may need more thyroid hormone to carry out the regular functions.

A low-calorie diet can help you to lose weight and in extreme cases, weight loss surgery can also help. Talk to your doctor about the options available to lose weight and how it can improve your thyroid function and disease control.

1. Eat a balanced diet A healthy diet can help you to deal with certain symptoms of hypothyroidism such as lethargy, fatigue, and tiredness. Eating well also lowers your risk of developing other health complications due to the impaired thyroid gland.

Eat foods rich in selenium, omega-3 fatty acids, calcium, magnesium, and vitamins E and B6. Load up your intake of fresh fruits and vegetables, whole grains, and lean meat and stay away from processed foods.

It is time to reconsider what goes on to your plate. Here’s more about the foods to avoid, if you have hypothyroidism. Click To Read!

1. Exercise without fail As hypothyroidism makes you feel tired and low on energy, it is important to ensure you stay physically active. This can not only improve your metabolism but can also improve your overall health right from aiding in weight loss to helping you manage your condition.

You can start slow by walking in the morning and evening or playing a sport. Swimming or riding a cycle is not a bad idea as it can help you to move and stay active. You can even consider yoga as it involves stretching and twisting of the muscles which can stimulate the thyroid gland and also help you to maintain a healthy metabolism.

1. Take medications regularly Strictly follow your doctor’s advice about taking these medications regularly and on time. Do take your medicines daily at almost the same time to ensure a consistent level of hormones in the blood throughout the day.

The best time to take thyroid medications is early in the morning. But, do not take it with tea or coffee as you need to maintain a gap of at least 30 minutes between food items and this medicine. It is wise to keep a reminder to take medicines to avoid skipping medications.

Also read, some common mistakes that you might be making while taking medications for hypothyroidism. Click To Read!

1. Manage stress When you are stressed, there are numerous hormonal changes that happen in the body. These changes not only increase the resistance of thyroid receptor cells to thyroid hormones but also weaken your immunity. So, there is no two-way when it comes to managing stress and hypothyroidism.

Certain measures that can help you de-stress include indulging in a hobby, meditation, joining a dance or art class, gardening, planning a mini-vacation, spending time with friends and family, etc.

Pregnancy and hypothyroidism Hypothyroidism is very common during pregnancy and can pose a significant threat to the health of both mother and the baby. With hypothyroidism, the mother may be at an increased risk of miscarriages, hypertension, anemia, muscle pain, etc. Whereas, the baby may have a possibility of cognitive and developmental impairments.

Women with hypothyroidism need an increased dosage of the thyroid medicine for the duration of their pregnancy and they must consult their doctor regarding the same as soon as pregnancy is confirmed. It is also essential to undergo routine monitoring tests for the levels of TSH and thyroxine to optimize the treatment dosages.

Here’s more on the wider range of implications, symptoms, and measures that need to be taken for hypothyroidism during pregnancy. Click Here To Read!

Frequently Asked Questions What diet should I take if I have hypothyroidism? Is hypothyroidism a hereditary disease? Why am I not losing weight even after exercising? How long do I need to take the thyroid supplements? What will happen if I do not take the prescribed medication for hypothyroidism? How can I lose weight fast with hypothyroidism? Can hypothyroidism go away completely? References InformedHealth.org [Internet]. Cologne, Germany: Institute for Quality and Efficiency in Health Care (IQWiG); 2006. Underactive thyroid: Overview. 2014 Oct 8 [Updated 2017 Aug 10]. Patil N, Rehman A, Jialal I. Hypothyroidism. StatPearls. Treasure Island (FL). StatPearls Publishing; 2021 Jan. Kostoglou-Athanassiou I, Ntalles K. Hypothyroidism - new aspects of an old disease. Hippokratia. 2010 Apr;14(2):82-7. Chaker L, Bianco AC, Jonklaas J, Peeters RP. Hypothyroidism. Lancet. 2017 Sep 23;390(10101):1550-1562. Unnikrishnan AG, Kalra S, Sahay RK, Bantwal G, John M, Tewari N. Prevalence of hypothyroidism in adults: An epidemiological study in eight cities of India. Indian J Endocrinol Metab. 2013 Jul;17(4):647-52. Singh K, Thakar AB. A clinical study to evaluate the role of Triphaladya Guggulu along with Punarnavadi Kashaya in the management of hypothyroidism. Ayu. 2018 Jan-Mar;39(1):50-55. doi: 10.4103/ayu.AYU\_62\_17. Thyroid - Calcarea Carbonica. U.S National Library of Medicine. Hypothyroidism Web Brochure. American Thyroid Association (ATA).

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Hair loss Also known as hair fall, baldness, alopecia. Overview Generally, people shed around 50 to 100 single hair per day. Hair shedding is a natural process in which some hair sheds while new hair start to grow in. Hair loss or alopecia occurs when this balance is disrupted and more hair begin to fall than the new hair growing. Hair loss affects men, women, and sometimes even children. One may notice hair loss in the form of hair thinning, receding hairline, part widening, and bald patches. Age, genetics, nutritional deficiencies, hormonal imbalances, certain diseases and medications could be some of the causes of hair fall. However stress, tight hairstyles, chemical hair treatments and overuse of styling products, are also known to trigger hair fall. Hair loss does not have any harmful physical effects as such, but its psychological impact cannot be denied. For most people, their hair is inherently connected to their confidence. If their hair looks good, they feel good about themselves. But if they start losing hair, their self esteem begins to dwindle. In such a case, one can try one or many treatment options available for dealing with hair loss. Home remedies and oral hair supplements are usually the first line of action for hair loss. However, it is always advisable to visit a dermatologist or trichologist to get a proper diagnosis and treatment. Various treatment options include topical agents like Minoxidil, injections, oral treatments, Platelet rich plasma (PRP) therapy and hair transplantation. Key Facts Usually seen in Adults above 30 years of age. Children below 18 years of age Gender affected Both men and women but more common in women Body part(s) involved Hair Scalp Necessary health tests/imaging Blood tests: thyroid profile & vitamin profile Pull test Light microscopic examination Scalp biopsy Treatment Oral supplements for nutritional deficiencies: Vitamin B12 (Cobalamin), Vitamin B7 (Biotin), Zinc & Iron Minoxidil  
Finasteride Topical corticosteroids or steroid injections Platelet rich plasma (PRP) therapy Hair transplantation: Follicular Unit Transplantation or FUT, Follicular Unit Extraction or FUE Laser treatment Specialists to consult General physician Dermatologists Trichologists Causes Of Hair Loss

Before knowing about the causes of hair loss, let’s know about the hair growth and hair loss cycle. Ideally, each hair follicle goes through three phases:

1. Anagen phase is the active phase of hair growth that usually lasts for about two to six years. Around 85-90% of the hair on the scalp is in this stage at a given point in time.
2. Catagen phase is the transitional phase that lasts a few weeks (2-3 weeks). Only 1% of hair is in this stage.
3. Telogen phase is the end phase of hair growth, which is the resting phase. Around 13% of our hair is in this stage.

At the end of the telogen phase, hair follicles are shed, which is replaced by new hair and the cycle continues. However, the hair growth cycle can be influenced by an individual’s age, diseases, hair care routine, and diet.

Common causes of hair loss include:

Age: With age, it is common to notice some amount of hair fall. Men and women both notice receding hairline as well as thinning of hair.

Genetics: Hereditary causes are the most common cause of hair loss all over the world and both men and women are affected. It is also known as androgenic alopecia, male-pattern baldness and female-pattern baldness. It appears as a receding hairline and bald spots in men and thinning hair along the crown and a widening part in women.

Childbirth and other stressors: If you have recently given birth, or have had a chronic illness it can lead to hair fall. Stress or any kind of traumatic event may also trigger hair loss.

Ongoing treatment/medications: Certain undergoing treatment such as treatment for cancer, arthritis, depression, heart problems, gout and high blood pressure can trigger hair fall within a few days or weeks of starting the radiation or chemotherapy.

Tight hairstyles: Tight hairstyles such as braids can lead to hair fall over time. This is permanent hair loss and is known as traction alopecia.

Scalp infections: A scalp infection, which appears as scaly and inflamed results in hair loss.

Hormonal imbalance: Certain women experience hair loss due to hormonal imbalances in conditions such as PCOS (polycystic ovarian syndrome). Birth control pills, which are hormonal preparations, can also trigger hair fall.

Nutritional deficiencies: If your diet lacks protein, zinc, biotin, iron or any other essential nutrient then you may notice hair fall and thinning of hair.

Disease: Diseases such as hyperthyroidism, hypothyroidism, diabetes, lupus and STI’s (sexually transmitted infections) can lead to hair fall as well as bald patches on the eyebrows, lashes, and other parts of the body.

Pulling your own hair: Also known as Trichotillomania, it is the habit of pulling one’s own hair that may lead to permanent hair loss over time. Symptoms Of Hair Loss

Signs and symptoms of hair loss can present in many ways as the following: Gradual loss or thinning of hair on top of head. Receding hairline(frontal fibrosing alopecia). If the hairline starts looking higher than the usual position. Widening partition. If someone parts their hair, they might notice the part getting wider over time. Circular or bald patches. Some people develop circular or bald patches on their scalp, beard or eyebrows. Loosening of hair. Clumps of hair might come out while combing or washing hair. Thinner ponytail. Scalp starts getting visible through the hair. Full-body hair loss. Some health conditions and treatments such as chemotherapy for cancer, can cause loss of hair from all over the body.

Hair loss can be gradual or rapid. The symptoms for gradual hair loss include hair thinning, widening of part, receding hairline. The symptoms for rapid hair loss include clumps of hair in comb or drain, a bald patch that appeared recently and severe hair fall.

Note: Gradual hair loss is more common and tends to affect everybody at least once in their lifetime. The signs of gradual hair loss are subtle and may take a long time before you even notice your hair fall!

Apart from the obvious signs of hair fall, some other symptoms may also be present with your hair fall. Intense itching and redness in the scalp: This could occur due to an underlying infection in the scalp. Scaly bald patches, often with sores: It can be a sign of fungal infection like ringworm or due to a chronic disease like psoriasis. Burning and tingling on the scalp: Some people who have alopecia areata experience might experience burning and stinging prior to sudden hair loss. Pus-filled sores on the scalp: Some conditions such as folliculitis can cause pus-filled blisters on the scalp resulting in temporary hair loss. Types Of Hair Loss

Hair loss, also known as alopecia, is broadly classified into cicatricial alopecia and non-cicatricial alopecia. In non-cicatricial alopecia, hair loss is not permanent whereas in cicatricial alopecia, scars occur along with hair fall and destroy the hair follicle resulting in permanent hair loss. A few types of hair loss are discussed below:

1. Non-cicatricial or Non-scarring alopecia Androgenic alopecia: Androgenic alopecia is also called hereditary hair loss. In men, it is known as male pattern baldness which is characterised by gradual loss of hair above the temples and thinning at the top of the head, usually creating a shape of ‘M’. In women, it is known as the female pattern baldness and results in thinning all over the scalp or widening of the part. Alopecia areata: It is an autoimmune disorder in which the body starts to attack its own hair follicles. This is hair loss that can affect every part of the body, including the scalp, face, trunk, and extremities. When it affects only a portion of the body, it is called alopecia areata. When it affects an entire site it is called alopecia totalis. When it involves the whole body, it is called alopecia universalis which is mostly associated with conditions like vitiligo and thyroid disorders. Anagen effluvium: In this, diffuse and rapid hair loss occurs, which is mainly caused by the effect of radiation and chemotherapy. Hair usually grow back after completion of the treatment. Telogen effluvium: It is a type of sudden diffuse hair fall that is mostly seen after some stressful event, period of emotional shock , illnesses or taking certain medications. It can also occur due to hormonal fluctuations that happen in pregnancy, childbirth, starting or stopping hormonal birth control pills or menopause. Traction alopecia: This type of alopecia results from too much pressure on the hair, mostly because of tight braids, ponytails, or buns. Trichotillomania: In this type of impulse control disorder, a person pulls his/her own hair subconsciously. This leads to irregular bald patches and uneven hair length. It mostly occurs in children or adolescents. In children, it is more like a habit that will eventually resolve on its own, but in adolescents, psychiatric help might be required.
2. Cicatricial alopecia or scarring alopecia

Cicatricial alopecia is a broad umbrella encompassing uncommon inflammatory hair loss disorders that result in scarring patches of hair loss with absence of hair follicles. Causes of hair follicle destruction include fungal infections, chemicals such as hair relaxers, and inflammatory disorders which include discoid lupus erythematosus, lichen planopilaris, dissecting cellulitis, tufted folliculitis, folliculitis decalvans, alopecia mucinosa, alopecia neoplastica, central centrifugal cicatricial alopecia, and acne keloidalis. I have recovered from COVID-19. Why am I facing hair loss? While most people think they are suffering from hair loss after recovering from COVID-19, it is actually hair shedding. It is called Telogen Effluvium and usually occurs around 3 months after a stressful event. A fever or illness like COVID-19 can force more hair to enter the shedding (telogen) phase of the hair growth life cycle at the same time. Most people see that their hair starts looking normal and stops shedding after 6 to 9 months. Read More About COVID-19! Risk Factors For Hair Loss

There are many risk factors for developing hair loss. Some of these risk factors can be avoided, while others cannot. The following are some of the risk factors: Hereditary: If you have a family history of hair loss, then there is a good chance that you will experience it also. Hereditary hair loss can affect both men and women. Stress: A person who is frequently experiencing stress can be a risk factor for hair loss. Stress of all kinds can cause a negative effect on the body. It can cause the hair to stop growing. Hormonal changes: Hormonal changes that happen in pregnancy, childbirth, starting or stopping hormonal birth control pills or menopause can also increase the risk of hair loss. Medications: Certain medications may lead to hair loss. If you begin to experience hair loss after the beginning of a medication, talk to your doctor to check if this is a side effect of your medication. Chemotherapy: During the treatment for cancer, there is a good chance of losing hair. The hair will begin to grow back after the series of chemotherapy treatments is done. Significant weight loss Medical conditions such as hypothyroidism, hyperthyroidism, diabetes, lupus and STDs

Does initial hair fall lead to hair loss in the long run? Read To Know!

Diagnosis Of Hair Loss

Diagnosis for hair loss includes a detailed history, physical examination with a focused evaluation of the hair and scalp. Other diagnostic measures include a fungal screening of the scalp, hair pull, and tug test, and light microscopy, and/or trichoscopy.

1. Pull test: In this test, also known as traction test, 20-60 hair strands are grasped between your thumb and index and middle finger, held from the hair shaft firmly, and tugged away from the scalp. If the hair shedding is more than 10% of the total hair grasped then it is called a ‘positive pull test’ & indicates active hair shedding.
2. Light microscopic examination: The hair that is collected by the pull tests is then examined under the microscope for fractures, irregularities, coiling, and other hair shaft disorders.
3. Scalp biopsy: Scalp biopsies are done in cases of cicatricial hair loss and undiagnosed cases of non-cicatricial alopecia.
4. Blood tests: Your doctor might ask you to get a thyroid profile done as low levels of thyroid hormone tend to cause hair loss. Also, sometimes doctors may recommend blood tests to check the level of various nutrients as deficiencies of these can lead to hair loss. The following are usually tested: Iron: Iron deficiency in pre-menopausal women is one the major causes of hair loss. Iron contributes to hemoglobin production, which helps in delivering nutrients and oxygen to hair follicles. When iron is not present in adequate amounts the hair won’t grow, causing progressively thinner hair. Zinc: Zinc deficiency can also impact hair growth and cause hair thinning. Biotin: Also known as Vitamin B7, it stimulates keratin production in hair and can increase follicle growth. Biotin deficiency can hence lead to hair loss. Celebs affected Anupam Kher Anupam Kher is one of the few Bollywood actors who have embraced and flaunted their baldness. Javed Jaffrey Javed Jaffrey started wearing a hairpiece years ago and has been spotted several times wearing different wig styles. Matthew McConaughey This American actor with a huge fan following shocked everyone when he started showing the symptoms of male pattern baldness. Jon Cryer The American actor and television director actually confessed to wearing wigs to hide his baldness during public appearances. Prevention Of Hail Loss

If you are already experiencing hair loss, then making a few changes in your hair care routine and following these simple tips can help alleviate the problem. These are: Limit the use of hair styling products and tools such as hot rollers, curling irons, hot oil treatments, etc as it can cause hair breakage and lead to hair fall. Say no to tight hairstyles and avoid unnecessary twisting, rubbing, or pulling your hair. Don’t rub wet hair with a dry towel but wrap a towel to soak water and allow it to dry naturally. Avoid combing aggressively as it can cause split ends and hair breakage. Instead, use a wide-toothed comb. Apply oil regularly as it can prevent dirt and toxins from entering the follicle. Also gently massage the scalp as it can promote blood circulation in the scalp area. Eat a diet rich in essential nutrients such as vitamins, minerals, and antioxidants especially iron, biotin, zinc along with proteins, fats, and carbohydrates to prevent hair damage. Do not follow crash diets as rigorous dieting can impair the supply of nutrients to the hair follicles. Quit smoking as smoking can cause premature aging of the hair cells which can make the follicles brittle and thin, causing the hair follicles to break easily. Manage your stress as it can lead to hormonal imbalance in the body with hair loss. Do consult a trichologist or a dermatologist to know the exact cause of the hair fall and get proper treatment. Do not self-medicate like the use of supplements or hair care products for hair growth.

Save your hair this monsoon by following some simple steps. Read More!

Specialist To Visit

Hair loss could be due to an underlying health problem such as Nutritional deficiencies, PCOS, Thyroid disorders and Anemia, etc. So it is always advisable to discuss your issue of hair loss with your General Physician. The following specialists can also help you in diagnosing and treating hair loss: Dermatologist Trichologists

Take professional advice and discuss hair related issues. Consult Now! Treatment Of Hair Loss

There are many treatment options for hair loss right from the use of medications to hair transplantation. These are:

A. Medications

1. Oral supplements Vitamin B12 (Cobalamin): This vitamin is responsible for the production of red blood cells, which deliver oxygen and essential nutrients to all parts of your body, including hair follicles. Vitamin B7 (Biotin): This vitamin is known to stimulate keratin production in hair and can increase the rate of follicle growth. Supplements of Vitamin B12 are beneficial for regrowing hair in people with its deficiency. Zinc: Zinc is an essential mineral that’s involved in several biological processes within your body. It plays a key role in making proteins in your hair and other cells. Iron: The best way to treat hair loss with ferritin is to increase your iron levels. Hair loss as a result of low iron is not permanent and it can be treated with supplements and foods rich in iron.
2. Minoxidil It is an over-the-counter medication that is FDA approved for use in both men and women. Administered topically, the 5 % concentration is used to treat male pattern baldness whereas 2% is only approved for female pattern baldness treatment. It stops the thinning of hair and is known to stimulate hair growth.
3. Finasteride It is also an FDA-approved drug for the medical management of hair loss but only in men. It is a prescription drug that is commonly used to treat an enlarged prostate, but a higher dose is used to treat hair fall. It stops the production of the hormone 5-dihydrotestosterone (DHT), excess of which is known to cause hair loss.
4. Topical corticosteroids or steroid injections These are steroids that help to stop inflammation and treat hair loss. This usually comes in the form of topical cream or injection that needs to be injected into the scalp to promote hair growth. These injections are usually given every 4 to 8 weeks as needed. Talk to your dermatologist to know about it.

B. Platelet rich plasma (PRP) therapy PRP is a process in which the patient’s own blood is processed and injected into different points in the scalp. PRP, which is rich in growth factors helps in hair growth. The following steps are followed:

Step 1 - The blood is drawn usually from the arm and processed in a centrifuge (a machine that spins and separates fluids of different densities).

Step 2 - After about 10 minutes in the centrifuge, the blood separates into three layers: platelet-poor plasma platelet-rich plasma red blood cells Step 3 - The scalp is locally anesthetized. The platelet-rich plasma is drawn up into a syringe and injected into areas of the scalp that require more hair growth. C. Hair transplantation During a hair transplant procedure, a dermatologist or cosmetic surgeon removes hair from a part of the head that has hair and transplants it to a bald spot. Possible risks include bleeding, bruising, swelling and infection. Follicular unit extraction (FUE) and follicular unit transplantation (FUT) are the two most common techniques for hair transplants. Talk to your dermatologist to know which procedure best suits your condition.

1. Follicular Unit Transplantation or FUT FUT is the older of the two methods and uses strips of skin with hair on them from your scalp itself to be transplanted in a bald spot. The scarring left behind on the donor site is covered up with new hair. This technique requires much aftercare and is quite a hassle to go through.
2. Follicular Unit Extraction or FUE It is a newer technique and is sufficiently advanced in the technology it uses to get the result. In this method, incisions are made around every follicle unit, which is then transplanted to the balding area. This method leads to very little scarring, and the recovery process takes a lot less time compared to FUT.

D. Laser treatment There is numerous laser equipment available in the market which claims to stimulate hair growth and treat hair fall. These include brushes, combs, and other electronic devices, however, the efficiency and safety of these devices are not known. Do hair serums and lotions stimulate hair growth? Earlier, the hair serums and lotions used to polish the surface of the hair and make them shiny but over time Hair Serums/Lotions have now transformed from being just cosmetic to being more therapeutic, thus helping prevent hair loss. Hair growth serums have been proven to treat people suffering from Telogen effluvium (is a form of hair loss characterized by hair thinning or an increase in hair shedding). They are recommended along with Minoxidil or Finasteride to complement primary treatment. If you are keen to know more, read the article. Click Here Now! Home- care For Hair Loss

1. Onion (pyaaz) juice Onions contain sulfur, which is needed for the production of amino acids, proteins, and collagen, which in turn are needed for hair growth and prevent hair loss. Applying onion juice on the scalp is known to increase blood supply to hair follicles and thus, prevent hair fall due to hair thinning and promote hair growth.
2. Eggs Eating eggs can be beneficial for hair growth and prevent hair loss because eggs are loaded with nutrients like biotin, Vitamin A, Vitamin E, and folate, which are proved to aid in hair growth and prevent hair loss caused due to nutritional deficiency.
3. Aloe vera This traditional home remedy is known to soothe the scalp, condition dry hair, and reduce dandruff along with nourishing the hair follicles and improve overall hair health when rubbed over the scalp and length of the hair.
4. Coconut (nariyal) oil Coconut oil improves hair health and luster. This is because it contains lauric acid, which penetrates easily into the hair shaft and thus, reduces protein loss from both damaged and undamaged hair when used as a pre and post-wash treatment.
5. Fenugreek (methi) seeds Fenugreek seeds contain phytoestrogens (plant hormones) which were believed to enhance hair growth.
6. Bhringraj Eclipta alba (bhringraj) is one of the most popular and widely used traditional home remedies for hair fall. Methanolic extract of E.alba in water can promote hair growth by increasing the anagen-phase (the active growth phase of hair follicles).
7. Tea tree oil Tea tree oil is one of the very few essential oils which are known to prevent hair fall and promote hair growth. It is due to its powerful cleaning, antimicrobial and anti-inflammatory properties. When applied topically it can improve the absorption of nutrients by the follicles and thus, enhance hair growth. Complications Of Hair Loss

Hair loss or alopecia does not have any harmful physical effects as such but the psychological impact of hair loss cannot be denied. Anxiety and depression are some of the psychological consequences of alopecia that affect both genders. Interestingly, high levels of stress and anxiety further accentuate hair fall. Failure of treatment or its ineffectiveness also contributes to psychological conditions.

Alternative Therapies Of Hair Loss

1. Aromatherapy A compound in sandalwood, rosemary, and thyme oils is used to boost hair growth. Rubbing one or more of these oils into your scalp for at least 2 minutes every night can promote hair growth.
2. Acupuncture Acupuncture is known to reduce hair loss and promote hair regrowth for patients with hair loss by improving cerebral blood circulation. However more scientific research and backing is required to prove the same.
3. Microneedling Microneedling can help in stimulating and inducing stem cells in the hair follicles that lead to hair growth. It might also improve the absorption of products used to treat hair loss, like minoxidil, platelet rich plasma and topical steroids. Living With Hair Loss

Living with hair loss can be challenging. For most people, their hair is inherently connected to their self-image. If their hair looks good, they feel good about themselves. But if they start losing hair, their confidence begins to suffer. Some people also experience the feeling of looking or getting old. If you start noticing thinning hair, you don’t have to just smile and bear it. Go ahead and try one or many treatment options for dealing with your hair loss. In case the treatment options for the hair loss deem ineffective you can go for other options such as:

Try wearing scarves or bandanas Wearing a silk or cotton scarf around the head or knotting a bandana can be a stylish option while also masking any hair thinning. Just make sure to choose fabrics that are very soft, so that they don’t irritate the scalp.

Explore hair extensions or a wig If you are losing hair, you can consider adding hair extensions. If you’ve lost all your hair as a result of alopecia or chemotherapy, a wig might be a better way to cover your head occasionally or on a regular basis.

Try wearing hats Hats can be a good option as well when you’re dealing with hair loss. You can also combine this with other solutions like, you could wear a wig to work and wear a hat on your holidays.

Consider counseling While some people may feel just fine about their appearance after losing hair, some might feel under confident and depressed, and no scarf or hat can fix it. In such a case, don’t be apprehensive to consult a counselor or therapist. Sometimes sharing your feelings can help you deal with them better.

Join a support group It might be good to talk to someone who is going through exactly the same feelings as yours. Join a group or you can also interact online, if you prefer to interact with people from the comfort of your own home.

Embrace baldness This approach is not for everyone but some people find the courage to embrace their baldness. Rather than covering it up, they feel free or liberated to flaunt it to the world. Frequently Asked Questions What causes hair fall? How much hair fall is normal? Is it possible to regrow my hair? Which foods promote hair growth? Which vitamins are good for hair growth? What are the natural remedies for hair growth? References Phillips TG, Słomiany WP, Allison R. Hair Loss: Common Causes and Treatment. Am Fam Physician. 2017 Sep 15;96(6):371-378. Hadshiew IM, Foitzik K, Arck PC, Paus R. Burden of hair loss: stress and the underestimated psychosocial impact of telogen effluvium and androgenetic alopecia. J Invest Dermatol. 2004 Sep;123(3):455-7. Phillips TG, Słomiany WP, Allison R. Hair Loss: Common Causes and Treatment. Am Fam Physician. 2017 Sep 15;96(6):371-378. Almohanna HM, Ahmed AA, Tsatalis JP, Tosti A. The Role of Vitamins and Minerals in Hair Loss: A Review. Dermatol Ther (Heidelb). 2019 Mar;9(1):51-70. Alopecia.National Health Portal. September 2015. Treating Female Pattern Hair Loss. Harvard Health Publishing.August 2020 Sharquie KE, Al-Obaidi HK. Onion juice (Allium cepa L.), a new topical treatment for alopecia areata. J Dermatol. 2002 Jun;29(6):343-6. Rushton DH. Nutritional factors and hair loss. Clin Exp Dermatol. 2002 Jul;27(5):396-404.

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Hand, Foot, and Mouth Disease Also known as HFMD, HFM disease, enteroviral vesicular stomatitis and coxsackievirus infection Overview Does your child have fever, mouth ulcers/sores along with rashes on the hand and feet or he/she is reluctant to eat even his/her favorite food? Well, this can be due to a viral infection called the hand, foot, and mouth disease(HFMD) which is very common in children under 5 years of age. It is most commonly seen during summer and autumn seasons.

HFMD is highly contagious that can spread through direct contact with the skin, nasal and oral secretions of infected individuals, or by fecal contamination. The illness usually starts with a high grade fever that is followed by painful mouth ulcers. The characteristic non-itchy rashes on the hands and feet start appearing at last.

HFMD is generally a mild and self-limited illness that runs its course. Treatment is mostly directed toward the relief of symptoms. Key Facts Usually seen in Children under 10 years of age Gender affected Both men and women Body part(s) involved Hand Foot Mouth Mimicking Conditions Enteroviruses Erythema multiforme Herpangina Herpes simplex Herpes zoster Kawasaki disease Toxic epidermal necrolysis(TEN) Viral pharyngitis Necessary health tests/imaging Physical examination Biopsy Serological testing Polymerase chain reaction Treatment Paracetamol Ibuprofen Fluid therapy Anti-viral: Ribavirin, Quinacrine & Amantadine Specialists to consult General physician Pediatrician Infectious disease specialist Symptoms Of Hand, Foot, and Mouth Disease

Hand, foot, and mouth disease (HFMD) is mostly a childhood illness though it can affect adults also. The symptoms are usually the same in children and adults. But, the disease can be worse in infants and children due to their inability to express their symptoms.

The disease is mild, resembling a common cold in the initial days of infection. In most cases, symptoms last for 7-10 days.

As the name suggests, symptoms appear on the hand, foot and mouth in the form of sores, blisters and rashes. The typical symptoms of HFMD can be broadly classified as: Fever and flu-like symptoms These symptoms start appearing after 3 to 5 days of catching the virus. The symptoms include: High fever Sore throat Tiredness Loss of appetite Mouth ulcers Children suffering from HFMD usually develop mouth sores after a few days of infection. Ulcers appear in the mouth and tongue which gradually progress into painful blisters. This makes swallowing difficult which can be identified by the following signs in children: Not eating even his/her favorite food Drooling (drooping saliva from mouth more than usual) Crying while eating Interest only in having cold fluids Skin rashes A child having HFMD gets rashes on the skin which look like slightly raised red spots. The spots can also look pink or darker skin depending upon the skin tone. The most common sites of rashes are hands and feet, although they can also appear on the buttocks, legs, and arms. In most of the cases, rashes do not cause itching. Sometimes, rashes develop into blisters which are filled with fluid containing viruses. Other symptoms A child with HFMD might also experience Muscles aches Irritability Pain in abdomen Diarrhea Headache Runny nose Peeling of the skin Tenderness or pain while touching the palms of the hands and soles of the feet Vomiting

Here are some important things to remember when your child has one or multiple episodes of vomiting. Read To Know Signs of dehydration The child suffering from HFMD can be dehydrated due to inability to drink anything which can be noticed as: Dry mouth Lack of tears Sunken eyes Dark urine Decrease in the frequency of urination No wet diapers for 4-6 hours (infants and toddlers) Did you know? The skin of newborns, unlike adults, is thin and has less hair and sweat glands. They are exposed to numerous germs, mechanical trauma and weather changes. Because of which, there is an increased risk of skin problems.Here’s all about common skin problems commonly seen in kids and what parents can do about it. Tap To Read Causes Of Hand, Foot, and Mouth Disease

HFMD is a viral infection that is caused by enterovirus family which includes mainly three viruses: Coxsackievirus A16: It is the most common cause of HFMD. Coxsackievirus A6: It is associated with the severe form of infection. Enterovirus 71 (EV-A71): It is rarely found but is associated with severe diseases such as encephalitis Transmission The disease is highly contagious and can spread from one person to another through infected saliva, nasal secretions, fluid from blisters, and feces. Usually, the chances of spreading the infection are high during the first 5 days of onset of symptoms. However, in some cases, infection can be spread even in the absence of symptoms or a little later due to the presence of virus in the stool for 4 to 8 weeks.

Anyone can get the disease by: Contact with respiratory secretions during coughing or sneezing Making close contact with the infected person such as during kissing, hugging, etc. Touching an infected person Sharing contaminated objects with the infected person Touching an infected person’s feces such as during changing diapers Touching the contaminated objects and surfaces such as doorknobs and toys

Note: In rare cases, the virus of HFMD can also be transmitted by swallowing water in swimming pools. This can happen, if the water is contaminated with feces of the infected person. Risk Factors For Hand, Foot, and Mouth Disease

Age HFMD majorly affects infants and young children. Children less than 5 years are more prone to be infected by HFMD. Gender Some studies suggest that males are at higher risk of catching HFMD infection. Poor hygiene Since viruses that cause HFMD can live on surfaces and objects for some time, inadequate cleanliness increases the risk of HFMD. High frequency of social contacts Children who are regularly exposed to crowded places had greater risk of contracting the disease. These include school going children, children who play in the parks, children at the child-care center etc. Sharing toys with other children The toys can be contaminated by sharing with other children. This increases the risk of HFMD. Residence in rural areas Some studies suggest that children living in rural areas are more likely to catch HFMD infection due to more exposure to people. Improper hand washing The people who do not have a habit of washing their hands especially before meals and after using the toilet are at high risk of HFMD.

Note: HFMD is mild and self limiting. However, in some cases patients can develop severe neurological complications.

The risk factors that predisposes the person to severe HFMD include: Infection in children of age less than 3 years Fever or more than 3 days Body temperature greater than 39.0°C Vomiting Increase neutrophil count Respiratory rate greater than 24/minute Trembling of limbs Dyspnea (difficulty in breathing) Rashes on hips Lethargy Convulsions EV71 infection Low birth weight Did you know? By just rubbing the soap between your palms and washing it off does not mean that you practice hand hygiene. Germs tend to hide under fingernails and in the pockets between fingers, so you should scrub these areas vigorously every time you wash your hands. Here are the common mistakes you make while washing hands. Click To Know Diagnosis Of Hand,Foot, and Mouth Disease

The diagnosis of hand, foot, and mouth disease is usually simple. In the majority of cases, the diagnosis is made through examining the appearance of rashes, mouth ulcers, and blisters. The patient’s age and other clinical symptoms are also considered before confirming the infection. In some cases, samples of throat and feces are also examined.

Other tests that are rarely used include: Biopsy: In this, the tissue taken from the vesicles of blisters is examined through light microscopy. It is done to differentiate hand, foot, and mouth disease from varicella zoster virus and herpes simplex virus. Serological testing: Generally, this test is performed to confirm any viral infection through detecting antibodies. But, this test is not sensitive to make a diagnosis of HFMD virus. However, the test is used to monitor recovery through checking IgG levels.  
Polymerase chain reaction: It is used to confirm the diagnosis of coxsackievirus. Did you know? Unlike other viral infections that are more prevalent in the winter season, HFMD is most commonly seen in summers. This is because the family of enteroviruses are known to develop during summertime. Here are 4 basic things to keep in mind to ensure safety for your child during summers. Know Now Specialist To Visit

Although HFMD is usually a mild disease, any symptom should not be ignored as it can lead to several complications. Consult the doctor if your child: Has symptoms which are not improving even after 7 days Is dehydrated due to inability to drink normally Has pus around the sores Finds it very difficult to wake up Is not eating anything Is always feeling irritated Has a very high fever Here are the things that can be done, if your child gets a fever. Read To Know!

You can consult the following doctors for proper diagnosis: General physician Pediatrician Infectious disease specialist

Consult India’s best doctors online with a single click. Consult Now

Prevention Of Hand, Foot, and Mouth Disease

There is no vaccine for hand, foot, and mouth disease but it can be easily prevented by following some basic steps which include: Hand washing Since, HFMD is a contagious disease that can spread through touching, hand washing serves the best protection. Hands should be washed often with soap and water and children should be educated about the importance of hand hygiene. In case, soap and water are not available such as during traveling, alcohol based sanitizer can be used. Make sure to wash hands after: Changing diapers Using the toilet Touching nose Coughing and sneezing Taking care of sick people Cleaning and disinfection The virus causing HFMD can live on surfaces for some time. It is advised to clean frequently touched surfaces and objects regularly such as toys, doorknobs, sippers, etc. Make sure to wash the soiled bedding and clothes with hot soap water. Avoid touching eyes, nose and mouth The infection can spread by touching eyes, nose, and mouth with contaminated hands. To reduce this, avoid touching eyes, nose, and mouth with unwashed hands. Avoid close contact with infected person The disease can spread through close contact with the infected person especially during kissing, hugging, etc. Avoid sharing of articles Since the virus can live on objects for a few days, avoid sharing toys, towels, or household items such as cups and utensils of your kid with anyone. The regular cleaning of the shared toys and books should be practiced in childcare centers. Stay off school or nursery The spread of infection can be prevented by keeping kids home for a few days, especially if they have symptoms such as fever, blisters, or mouth ulcers. Use tissues Try not to cough or sneeze in the open air, always use tissue while doing the same. Make sure to dispose of the used tissues immediately to reduce the risk of infection.

Note: Breastfeeding does not impact the incidence of hand-foot-and-mouth disease. Mothers do not need to stop breastfeeding to prevent transmission of disease. Treatment Of Hand, Foot, and Mouth Disease

There is no specific treatment for HFMD and children usually recover within 7 to 10 days on their own. As HFMD is a viral disease, antibiotics are not effective in curing the infection. The measures are taken to reduce symptoms and to prevent dehydration. There are various studies that are going on to develop antiviral treatment against enterovirus 71 induced hand, foot, and mouth disease because of its neurological complications.

The following treatment regimen is used to treat HFMD: Over-the-counter (OTC) medications such as paracetamol and ibuprofen are used to treat fever and pain caused by mouth sores. The child does not want to have much fluids due to painful sores so proper hydration of the child should be maintained by making him/her to drink enough fluids. A mixture of liquid ibuprofen and diphenhydramine can be used to gargle to reduce the pain caused by the ulcers. Ribavirin, quinacrine, and amantadine are the off-label antiviral medications that are used in severe cases of enterovirus 71. As per some studies, an antiviral drug, acyclovir showed the reduction in fever and skin changes within 24 hours of administration. In case of severe dehydration and neurological or cardiopulmonary complications, hospitalization is required.

Note: Aspirin is not recommended in children since it is linked with a life threatning disorder called Reye’s syndrome which is a rare and potentially fatal pediatric illness. The syndrome causes serious liver and brain damage. The disease typically presents as vomiting and confusion which can even lead to coma and death. Tips to soothe sore throat Throat lozenges and sprays that do not contain benzocaine can be used for children over 4 years of age. Liquid antacid can be used for rinsing after meals. Garling with a mixture of warm water and salt is very effective in children over 6 years of age who are able to gargle without swallowing. Home-care For Hand, Foot, and Mouth Disease

Although the disease is mild and usually goes away on its own, the symptoms such as painful mouth sores make it very difficult for the child to eat and drink. This makes the child even more irritable and fussy. The parents of the sick child should understand that the child will not be able to eat much for at least 7 to 10 days. It is advised that parents should shift the child from solid to soft liquids. The following measures may help in faster recovery of the child: Diet Foods to include- The child should be encouraged to have fluids such as water, milk, coconut water to prevent dehydration. The cold and soft foods such as ice cream, yogurt, smoothies, shakes, mashed potatoes, oatmeal, eggs, and popsicles should be included in the diet as it will help in numbing the area. This will not only serve as a welcome treat for kids but also soothes the ulcers. Foods to avoid- The acidic food items (citrus juices, lemonade, sodas and tomato sauces) can irritate the mouth sores and hence should be avoided. It is recommended to avoid hot drinks and spicy foods as they can aggravate the pain caused by mouth sores. Cleaning of blisters The blisters that usually appear on hands and feet should be kept clean through regular washing with soap and water. In case, the blisters rupture, they should be cleaned with an antibiotic ointment to prevent any infection.  
Avoidance of self medication There are various OTC medications that can harm infants and young children. Avoid giving any medication without the paeditrician’s consent to your child. Education The child should be taught not to touch the rash and mouth ulcers and to sneeze or cough into a tissue or on his/her sleeve. Education of hand hygiene is equally important. Staying at home The day care centers and schools of the child should be informed that he/she is diagnosed with the HFMD. It is important to inform staff and parents so that they can watch symptoms in other children. The child should be kept at home until the full recovery of mouth sores and open blisters. Breastfeeding If your child is under one year old, continue to give either breastmilk, formula, or both. You won’t have milk immediately after delivery Don’t worry if you didn’t start milking immediately after delivery. It usually takes 3-4 days for a normal flow of milk to start if you are a first-time mum. If your milk supply doesn’t start by day three (or longer) then it is better to speak to a lactation consultant or your doctor. Know more such interesting facts about breastfeeding. Read To Know Complications Of Hand, Foot, and Mouth Disease

The disease is acute with mild symptoms. Most of the patients of HFMD recover within a few weeks and the infection rarely recurs or persists. The complications from hand, foot, and mouth disease are rare and include: Dehydration It is the most common complication associated with HFMD. Children often get dehydrated due to difficulty in swallowing as a result of painful mouth ulcers. Hence, it has to be made sure to maintain optimum hydration.

Here are some basic tips that can be done, if you are feeling dehydrated. Click Now

Persistent stomatitis It refers to the inflammation of the mucous membrane of the mouth. It is often associated with painful ulcers that limit intake of food. Aseptic (viral) meningitis It refers to the inflammation of the layers of the brain due to viral infection. It is more common with enterovirus 71 infection. It is often characterized by fever, headache, stiff neck, or back pain. Fingernail and toenail loss In very severe cases, people may start losing fingernail or toenail which is usually noticed after 2 months of having an infection. The nail usually grows back on its own.

In severe cases of infection, HFMD can also cause: Widespread rash Enteritis (Infection of the gut) Pneumonia Myocarditis (inflammation of the muscle of the heart) Pulmonary edema (accumulation of fluids in the lungs) Cerebral ataxia (sudden, uncoordinated muscle movement due to injury to the brain) Encephalitis (inflammation of the brain) Guillain-Barre syndrome (a rare disorder in which your body’s immune system attacks your nerves) Intracranial hypertension (build-up of pressure around the brain) Paralysis Hand, Foot, and Mouth Disease in Pregnancy Although there is no potential risk to the baby and mother, the medical history of the patient can affect the situation. Pregnant women should contact the doctor as in rare cases, HFMD can lead to misscarriage during the first trimester due to persistent high temperature.

Note: HFMD can affect adults also. But, most infected adults do not seem to show any symptoms, they are, however, still contagious and can spread the virus to another person. Alternative Therapies For Hand, Foot, and Mouth Disease

Home remedies

1. Coconut water: Coconut water acts as a coolant and contains vitamins, minerals, electrolytes and antioxidants. It prevents dehydration and also helps in reducing the mouth pain.
2. Oil pulling: It is an old method of maintaining good oral hygiene and involves swishing any oil such as sesame or coconut in the mouth for 5 to 10 minutes. It helps in soothing the mouth sores.
3. Cod liver oil: It serves as a very good remedy for HFMD due to its antimicrobial and immune-boosting properties. It can be given in the form of capsules available in the market or by mixing it in oil or yogurt.
4. Echinacea: It is a herb that is known to reduce fever, cold, and infections. It can be prepared by boiling its leaves in water and adding honey to it.
5. Lavender oil: It is known for its antiviral properties. It also has a calming and relaxing effect which aids in sleep. A few drops of this oil in the bath water help your child to sleep better.
6. Liquorice root: Liquorice root can help to soothe blisters by forming a thin layer of mucous inside the throat and esophagus. It can be taken in the form of tea prepared by boiling some liquorice roots in water.
7. Ginger: Ginger is also one of the effective home remedies as it has antiviral properties. It can be prepared by boiling chopped ginger in water. Make sure to cool it before giving it to your child.

8.Coconut oil: Coconut oil can be applied on the rashes and blisters for a soothing and healing effect.

1. Neem: It has antimicrobial properties and is mostly used topically to treat viral infections. Neem oil can be applied on the rashes. It can also be used with coconut oil and lavender oil.
2. Aloe-vera: The gel of aloe vera can be applied on the rashes and blisters for soothing relief. Frequently Asked Questions Why is there a rise in Hand, foot, and mouth disease this year (2022)? Are Hand, foot, and mouth disease and foot and mouth disease (FMD) same? How is hand, foot and mouth disease different from chickenpox? Can adults catch hand, foot, and mouth disease from their children? How long should a child with hand, foot, and mouth disease stay out of daycare/school? What are the stages of HFMD? Can HFMD happen twice? Is HFMD itchy? How long is HFMD contagious? References Saguil A, Kane SF, Lauters R, Mercado MG. Hand-Foot-and-Mouth Disease: Rapid Evidence Review. Am Fam Physician. 2019 Oct 1;100(7):408-414. PMID: 31573162. Hand, Foot, and Mouth Disease, World Health Organization. Cox B, Levent F. Hand, Foot, and Mouth Disease. JAMA. 2018;320(23):2492. doi:10.1001/jama.2018.17288. Guerra AM, Orille E, Waseem M. Hand Foot And Mouth Disease. [Updated 2022 May 10]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Hand, Foot, and Mouth Disease, Center Of Disease Control and Prevention, Last Updated On: February 02, 2021. Hand, Foot, and Mouth Disease, NHS, Last Updated On: February 12, 2021. Kua JA, Pang J. The epidemiological risk factors of hand, foot, mouth disease among children in Singapore: A retrospective case-control study. PLoS One. 2020 Aug 11;15(8):e0236711. doi: 10.1371/journal.pone.0236711. PMID: 32780749; PMCID: PMC7418981.

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Headache Overview We all have headaches every now and then. Most of us usually tend to ignore them until they start interfering with our daily activities. Although, headache is a symptom itself, the other symptoms of headache are not just restricted to dull or sharp pain in the forehead region, but differ depending on the type of headache. There can be a lot of reasons you might be having a headache such as sinus infections, colds, stress, dehydration, vision problems, hormonal issues, migraine, head injury, and central nervous system (CNS) infections.

The actual cause of headache can be diagnosed with methods like CT scan, MRI, or certain blood tests. Your doctor will start the medication depending on the cause, type, and severity of your headaches. However, it is also important to bring some lifestyle changes such as proper diet, sleep, and relaxation techniques, if you suffer from recurrent headaches. Key Facts Usually seen in Adults between 20 to 40 years of age Gender affected Both men and women Body part(s) involved Brain Eyes Neck Blood vessels Nerves Prevalence Worldwide: 50% (2016) Mimicking Conditions Acute sinusitis Otitis media or externa Hydrocephalus Temporomandibular joint syndrome Wisdom tooth impaction Dental cavities Cervical and paraspinal radiculopathies Medication overuse headache Brain malignancy Viral infection Vascular malformations Pituitary tumors Necessary health tests/imaging Magnetic resonance imaging (MRI) Positron emission tomography (PET scan) Erythrocyte sedimentation rate (ESR) Treatment

Oral analgesics: Ibuprofen & Paracetamol Antiemetics: Domperidone Combination analgesics Triptans: Sumatriptan Ditans: Lasmiditan Single pulse transcranial magnetic stimulation (STMS) Vagal nerve stimulation (VNS) Behavioral therapy Physical therapy See All Symptoms Of Headache

The symptoms of headache are not just restricted to dull or sharp pain in the forehead region but differ depending on the type of headache. Some of the common symptoms associated with different headaches are: Dull pain around the forehead, neck, and back region. These symptoms are more common in tension-type headaches. Severe and throbbing pain usually on one or both sides of the head, along with pain in the eye, temple, or back of the head. Sensitivity to light, sound, and aura is common in migraine types of headaches. Constant pain that occurs in the sinus regions such as the bridge of the nose or the cheeks along with the feeling of fullness in the sinus is common in sinus headaches. Types of headaches

There are more than 150 types of headaches. Headaches can be broadly classified as primary and secondary.

A. Primary headaches A primary headache means the headache itself is the main medical problem, and not a symptom of an underlying illness. A primary headache is thought to be caused by overactivity of or problems with pain-sensitive structures in your head. The most common types by a very long way are tension headaches and migraines. Here is a rundown on some of the primary headaches:

1. Tension headaches It is the most common type of headache.This headache presents as mild to moderate pressure or tightness on both sides of the head, where the patient complains as if a tight band or rope has been tied on the head. Sometimes, the pain might feel spreading into or from the neck. Pain is not throbbing in nature.

Some tension headaches are triggered by exhaustion, stress, or disorders involving the muscles or joints of the neck or jaw. They can be troublesome and tiring, but they usually do not disturb sleep. Most people can continue working with a tension headache. However, the headache might worsen during activities like climbing up stairs or bending over.

1. Migraine Migraine pain is an intense pulsing from deep within the head. This pain can last for days. The headache significantly limits the ability to carry out daily chores. Migraine is throbbing and is usually one-sided.

Although a migraine can start without any warning, it is often set off by a trigger. The triggers may vary from person to person. The most common ones are fatigue, stress, lack of sleep, bright flickering lights, loud noises and dietary triggers like red wine, chocolate, aged cheese or an increase or decrease in caffeine. Nausea and vomiting also usually occur along with headache. Migraine is often life-long, and characterized by recurring attacks.

1. Cluster headaches Cluster headaches are relatively uncommon but a severe type of primary headache. It presents like a brief but severe burning, throbbing or constant headache. This headache gets its name because the pain tends to come in clusters, with one to eight headaches a day for one to three months every year or two, often at the same time of year. They disappear completely or go into remission in between for months to years, only to reoccur later.

Patients often describe them as unbearable which greatly interferes with their normal routine. Cluster headaches occur around or behind one eye or on one side of the face at a time. Sometimes, swelling, redness, flushing, sweating, nasal congestion, and eye tearing can also occur on the side that is affected by the headache.

1. New daily persistent headaches New daily persistent headaches usually start suddenly in a person who does not have a past history of headaches. They persist on a daily basis and can last for more than three months. The pain is moderate to severe and can mimic chronic tension-type headache or chronic migraine.
2. Exertional headaches Exertion headaches happen soon after periods of intense physical activity. Weight lifting, running, rowing, tennis, swimming, and sexual intercourse are common triggers for an exertion headache. It is thought that these activities cause increased blood flow to the head, which can lead to a throbbing headache on both sides of your head. This type of headache usually resolves within a few minutes or several hours.

B. Secondary headaches Secondary headaches are caused by an underlying medical condition. Examples of secondary headache causes include:

1. Sinus headaches Sinus headaches are the result of sinusitis or sinus infection, which causes congestion and inflammation in the sinuses which are air-filled spaces in the skull. The pain from these headaches is deep and constant in nature and often focused around the cheekbones, the bridge of the nose or forehead.
2. Hormone headaches Women commonly experience headaches that are linked to hormonal fluctuations. Menstruation, birth control pills, hormone replacement therapies, and pregnancy can affect the estrogen levels, which can cause a headache. When headache occurs two days before periods or in the first 3 days after it starts, they are known as menstrual migraines.
3. Hypertension headaches High blood pressure can cause you to have a headache. This kind of headache signals an emergency. This occurs when your blood pressure becomes dangerously high. You may also experience changes in vision, numbness or tingling, nosebleeds, chest pain, or shortness of breath.
4. Post-traumatic headaches Post-traumatic headaches can develop after any type of head injury. These headaches feel like migraine or tension-type headaches, and usually, last up to 6 to 12 months after your injury occurs. They can become chronic in some cases.
5. Medication overuse headaches Medication overuse headache (medication induced headache) or rebound headache is caused by long term and regular intake of painkillers usually taken to get relief from headache. This headache usually occurs every day and early morning and improves with painkillers but returns as the effect of medication wears off. Medication overuse headaches usually stop on cessation of painkillers. It is difficult in the short term, but doctors can help recover from medication overuse headaches for a long term relief.

Some secondary headaches are not very common but their recognition is extremely important as timely treatment can be life-saving and can help avoid serious repercussions. They may occur due to one or more of the following reasons: Idiopathic intracranial hypertension Subarachnoid hemorrhage Giant-cell arteritis Cerebral venous thrombosis Intracranial tumors Infections such as meningitis or encephalitis Did you know? Having a headache caused due to changes in weather or experiencing a throbbing pain on one side of the head would most probably indicate a migraine headache. If you are still confused about how to know if a headache is a migraine headache or a tension headache, then here is a detailed explanation about how a migraine headache is different from a tension headache. Click To Know! Causes Of Headache

Headache usually occurs when the muscles of the head and neck region tighten. This may occur in different types of headaches such as tension headaches and migraines.

There are various causes and triggers of different types of headaches:

1. Tension headache A tension headache can be caused by overuse of alcohol, caffeine, or caffeine withdrawal. It can also occur due to fluctuating hormones in women, straining of the eyes, or any injury to the head or neck. Poor posture can also trigger tension-type headaches.
2. Cluster headache The exact cause of cluster headaches is unknown. However, genetic and environmental factors can cause cluster headaches in some individuals. A cluster headache can be triggered by factors such as overuse of alcohol, smoking, high altitude, and overexertion.
3. Migraine headache Migraine refers to a neurological condition where headache may be associated with other symptoms such as aura. The exact cause of migraine is not known, but some studies show that migraine is caused by serotonin along with pathways that cause narrowing of blood vessels and reduced blood flow, followed by widening of these arteries. Migraines can be triggered by certain environmental conditions like cold weather, processed foods, bright light, and sound.
4. Sinus headache Sinus headaches are caused by sinusitis, which is the infection or inflammation of the sinus cavities. This can be triggered by change in weather or allergies.
5. Other causes Apart from the above mentioned causes, some other causes of headache can be serious and potentially life-threatening such as: Head or brain injury Hypoglycemia (low blood sugar) Intracranial bleeding (bleeding inside the skull) Brain aneurysm Brain tumor Concussion Meningitis Stroke Temporal arteritis Trigeminal neuralgia Risk Factors Of Headaches

You are at risk of headaches, if you: Are under a lot of stress Uncorrected nearsightedness or farsightedness (also known as visual aberrations/disorders) Uncontrolled hypertension Are sleeping irregularly or are lacking proper sleep Are fatigued Have hormonal changes (estrogen levels for women) Take some prescription medications such as nitroglycerin & estrogen Have suddenly stopped taking caffeinated beverages Poor posture can also cause frequent headaches Slouching causes pressure to build up in the neck and shoulder muscles, which in turn affects the head muscles and leads to a headache. Always ensure your screen is at your eye level and avoid bending too low when using a phone to text. Moreover, looking at a screen for maximum time in a day can strain the eyes, triggering a headache. Limit your screen time for overall health. Here’s more surprising causes of headache. Click To Know! Diagnosis Of Headache

Headache is not a disease in itself but is a condition arising due to various underlying pathologies. Evaluation of a headache usually begins with taking your medical history and performing some basic tests such as:

Complete blood count (CBC): CBC test is carried out to look out for an infection that could be causing your headaches.

Erthrocyte sedimentation ratio (ESR): ESR test or erythrocyte sedimentation rate is done, if giant cell arteritis (GCA), which is an inflammatory disease of large blood vessels, as well as other systemic disorders, are suspected.

Computed tomography (CT) scan: CT scan may also be chosen in some cases of headaches. However, due to the radiation, MRI is the preferred option.

Magnetic resonance imaging (MRI): MRI is often used to identify any structural abnormalities in the brain.

Cerebrospinal fluid study: Lumbar puncture (LP) and cerebrospinal fluid test may be advised in patients who have headache along with fever, meningeal signs, focal neurological deficits, or suspicion of intracranial hypertension. Celebs affected Sunil Shetty Bollywood actor Sunil Shetty suffered from migraine for almost one and a half years. Yoga helped him immensely to get rid of the migraine completely. Salman Khan In 2011, Bollywood superstar Salman Khan revealed that he was suffering from trigeminal neuralgia, a rare facial nerve disorder, which causes extreme pain in the face and head. Serena Williams Tennis star Serena Williams is open about struggling with migraines and how the invisible pain has affected her life and career. She has dealt with them with a lot of courage and right treatment protocols. Hugh Jackman Hollywood celebrity Hugh Jackman, who is well known for his role in the X-Men movie series had revealed that he missed an important moment of his life due to migraine. This was when Prime Minister Tony Blair came backstage to meet the cast but Jackman could not meet him. Prevention Of Headache

To prevent the occurence of headaches, one must identify the triggers and try to avoid them.

1. Steer clear of stress Stress can cause muscle tightening in the neck & shoulder region. This can lead to tension headaches. Such a headache feels like a tight band. It usually begins in the neck and back and works its way up to the head. Stress is also known to trigger a migraine headache. Therefore, it is advised to stay away from stress to prevent headaches.
2. Stay away from foods that trigger headaches Eating certain foods often triggers a migraine headache. Migraines are usually triggered by foods such as bananas, cheese, chocolate, citrus fruits, and dairy products. Knowing which foods trigger your headache and staying away from them is the best bet to keep headaches away.
3. Limit your alcohol intake Alcohol is a common cause of headaches such as a migraine headache or a cluster headache. Limit your alcohol intake to prevent headaches.
4. Environment Headaches such as cluster headache migraine can be triggered by factors, such as smoke, humidity, bright light, intense scents, or cold weather. Thus, it is advised to protect yourself from environmental triggers that could aggravate your headache.
5. Be aware of caffeine withdrawal If you normally consume caffeine in coffee or tea, stopping this intake abruptly can trigger a migraine. This is due to the constriction of blood vessels without caffeine, which is the main reason for the pain associated with migraines. Thus, you must not abruptly cut down your caffeine intake; if you are prone to headaches.
6. Do not cut down on your sleep A lack of sleep is associated with migraines and tension headaches. Specialist To Visit

You should go to a doctor if: You get headaches too often or for a long period of time (chronic headache) Your headaches are severe Your headache fails to subside with home care Your headache interferes with normal activities You get sudden headache that worsens in no time Your headaches are triggered by exertion, coughing, bending, or strenuous activity. If you need to take a pain reliever every day or almost every day for your headaches. You have headache following a head injury Do consult a doctor, if you have other signs and symptoms along with headache such as: Fever and stiff neck Seizures, confusion or blackouts Weakness or numbness Difficulty in vision Sudden onset headache Vomiting that precedes a headache Continous worsening of a headache Headache that disturbs sleep/routine activities The treatment of your headache depends on what is causing it. While an occasional headache does not require medical help other than over-the-counter medicines and self care, severe and recurrent headaches require medical attention. You will be advised to get a physical or other examination done to find the actual cause of your headache. There are various specialists who can treat your headaches such as: General physician Neurologist ENT specialist Ophthalmologist Did you know? A headache could be a sign of an underlying condition that could range from a migraine to a brain tumor. Hence, it is wise to consult your doctor right away if it comes on suddenly or if it happens more frequently to rule out any disease. Consult Now! Treatment Of Headache

There are are various treatment approaches to headache such as:

1. Oral analgesics: Analgesics such as ibuprofen and paracetamol are generally the first line treatment for headaches. Oral analgesics such as non-steroidal anti-inflammatory drugs (NSAIDS) are prescribed generally for cluster headaches and tension headaches.
2. Antiemetics: Antiemetics such as domperidone may also be prescribed in migraine, where headache is accompanied with nausea & vomiting.
3. Combination analgesics: In some cases of severe headache, analgesics are given adjuvantly with caffeine, barbiturates, and opiates. This therapy is usually short & can only be taken under medical supervision.
4. Triptans: Triptans such as sumatriptan give long-term relief from migraine headaches. These medicines not only treat migraine but are used as preventive therapy for migraine headaches.
5. Ditans: Lasmiditan is a newer drug used in the patients with chronic migraine. Its action is similar to triptans but the effect is more specific to the CNS.
6. Single pulse transcranial magnetic stimulation (STMS) & vagal nerve stimulation (VNS): These procedures are usually recommended for patients who are non-responsive to conventional therapy. These are newer treatment modalities approved by the FDA & used with varying success in the treatment of migraine attacks in adults. In this, electromagnetic probes are placed externally over the head which helps to regulate the neural pathways in the brain to relieve headache.
7. Behavioral therapy: Behavioral therapy such as cognitive behavioral therapy, relaxation techniques such as meditation helps in reducing the muscle tension, which is common in tension headache.
8. Physical therapy: Physical therapy for headache includes improving posture, hot and cold packs, exercise programs, and electrical stimulation.

Note: If your headache is due to migraine, then medicines to prevent migraine are recommended. These include beta-blockers like propranolol, antidepressants like amitriptyline, antiepileptics like topiramate, calcium channel blockers like flunarizine and CGRP antagonists. Here’s more about migraine and its treatment. Click To Read!

Home-care For Headache

Headaches can be annoying and can disrupt your daily functioning. Here are some self-care tips that can help you get relief from headaches.

Don’t forget the basics If you are prone to headaches then you should be extra careful about taking your meals on time, taking proper sleep, and staying away from foods that aggravate your headaches.

Relaxation techniques to your rescue Relaxation techniques such as deep breathing, yoga, and meditation can help you greatly in not only relieving your headaches but preventing them as well. Tension headaches can be relieved easily with hot or cold packs over the shoulders and neck. You can also go for some stretching exercises to get relief from headaches.

Try acupressure Acupressure is an ancient science that could help in relieving headaches, especially if it is tension headaches. In this type of headache, acupressure points are pressed, which helps in releasing tension and promotes the proper circulation of blood.

Go natural It has been found that certain herbs such as butterbur & peppermint oil can help in relieving headaches. Apart from the herbs, certain minerals and vitamins such as magnesium, coenzyme Q10, and Vitamin B12 can help in getting relief from your annoying headaches.

Here’s more quick fixes for migraine and ways to get rid of pain!

Complications Of Headache

Headaches are common and may occur every now and then. However, ignoring headaches can sometimes do more harm than good as it may be a result of some underlying pathology. Headaches should not be ignored for long. Not only do they start affecting normal functioning and hamper your productivity but also may lead to complications such as severe neurologic disability. Therefore, it is important that secondary causes of headaches are found out and the underlying pathology is rightly managed.

Here are some of the conditions where headaches should not be ignored. These include: Headaches that are unusually severe in intensity Headaches that develop after the age of 50 A drastic change in the headache pattern Headaches that increase with movement or coughing & sneezing Headaches that worsen with time Headaches that are accompanied with changes in personality or functioning Headaches that are followed by fever, confusion, stiffness in joints, decreased alertness, or memory Headaches that are associated with neurological symptoms such as visual disturbances, slurring of speech, weakness, or seizures Headaches that are accompanied by a painful red eye Headaches in which there is pain and tenderness near the temple region Headaches that start occurring after a head injury Headaches that affect your daily functioning Headaches in patients who have impaired immune systems such as cancer patients Alternative Therapies For Headache

Though there are various treatment options available for headaches, they fail to be efficacious in certain patients or pose certain side effects. Thus, many patients seek complementary and alternative medication for headaches, such as:

1. Chiropractic treatment Chiropractic treatment is considered useful for migraines. In this, spinal manipulation and interventions including massage are recommended for management of patients suffering from episodic or chronic migraine. Low-load craniocervical mobilization may be helpful in the management of patients with episodic or chronic tension-type headaches in the long run. For cervicogenic headache, spinal manipulation is the choice of chiropractic treatment.
2. Homeopathy Some homeopathic remedies may have beneficial effects in patients suffering from chronic tension type headaches.
3. Home remedies While you might find it easier to pop a pill every time you get a headache, trying a few effective remedies can prove to be a winner in relieving headache without side effects of medications. Here are some simple and effective natural remedies to get rid of headache instantly: Ginger tea Warm lemon water or tea Black pepper soup or rasam Cinnamon paste Steam inhalation with essential oils Here’s detailed information on how to use these home remedies to relieve headache. Click To Know!

Acupressure Acupressure is an ancient science that could help in relieving headaches, especially if it is tension headaches. In this type of headache, acupressure points are pressed, which helps in releasing tension and promotes the proper circulation of blood.

Psychological treatment Behavioral therapy such as cognitive behavioral therapy (CBT) & relaxation techniques such as meditation help in reducing the muscle tension, which is common in tension headaches. Living With Headache Headache caused due to stress or tension seems to get better with lifestyle remedies and medication. However, if you suffer from migraine headaches, it is important to keep a tab on its triggers and get medical help to prevent them. To prevent a headache, it is important to know the cause and treat it. Here are a few tips for people who experience headache on a regular basis:

1. Keep a headache calendar as it helps you to keep a tab on what you ate or what you did that might have possibly triggered a headache.
2. Stick to a regular sleep schedule as sleep hygiene habits and maintaining circadian rhythm can go a long way in giving respite from headaches. Go to bed early and get up early, almost at the same time every day, including weekends. Avoid daytime napping and stimulants like tea, coffee or alcohol close to bedtime. Turn off all electronic devices at least an hour before going to bed. Try to keep the room temperature cool and include vitamins like melatonin and magnesium (after consultation with your doctor) for a better and sound sleep.
3. Try herbal drinks such as ginger tea or lemon tea which are packed with antioxidants and reduce inflammation, thereby relieving headaches.
4. Stay away from the common triggers of headache such as alcohol, caffeine, skipping meals, eating cheese, or eating too little.
5. Try relaxation techniques such as meditation, acupressure, and yoga as these can help you to manage stress and relieve headache-induced by stress.
6. Do not always pop a painkiller as the right medicine for headache depends on the type of headache, how often you get them and how severe it is.
7. Consult a doctor if you have other signs and symptoms along with a headache. These may include fever and stiff neck, seizures, confusion or blackouts, difficulty in vision, weakness, or numbness.

Headache can be due to stress or it can be due to an underlying symptom of brain tumor. It is not always possible to know the type of headache based on the symptoms you experience. This is when your doctor might advise investigations like CT-scan or imaging techniques to know the root cause of it and treat the condition. Hence, do consult your doctor, if you have frequent headaches and not self-medicate always. Frequently Asked Questions Are headaches hereditary? What is a thunderclap headache? How can I treat a headache that spreads to behind the eyes? How to get relief from a headache in winter? What to do if a headache is accompanied with lightheadedness? What to do if a headache is causing sleeplessness? When to see a doctor for your headache? References Harvard health publishing. Different types of headaches need different treatments; December 2013 Harvard health publishing. Causes of common headaches; August 2016 Fayyaz Ahmed.Headache disorders: differentiating and managing the common subtypes.BR J Pain. 2012 Aug; 6(3): 124–132. Leeran Baraness; Annalee M. Baker. Acute Headache; Treasure Island (FL): StatPearls Publishing; 2021 Jan- Christie Murphy; Sajid Hameed.Chronic Headaches. Treasure Island (FL): StatPearls Publishing; 2021 Jan- Chowdhary Debashish. Tension type headache.Ann Indian Acad Neurol. 2012 Aug; 15(Suppl 1): S83–S88. Harvard Health publishing. How to tame tension headaches. September, 2014 SchmerlingRobert.H.Harvard Health publishing.If you have migraines, put down your coffee and read this. September, 2019 Harvard Health publishing.Headache remedies to help you feel better. September,201 Harvard Health publishing. Headache:When to worry, what to do. June,2009 Bryans Roland, Descarreaux Martin, Duranleau Mireille et al. Evidence-based guidelines for the chiropractic treatment of adults with headache.J Manipulative Physiol Ther. 2011 Jun;34(5):274-89. Sharma N, Ameta A and Sharma S. Effect of homeopathy on chronic tension-type headache: a pragmatic, randomised controlled single blind trial. J Headache Pain. 2013; 14(Suppl 1): P56. Andreas Straube & Anna Andreou. Primary headaches during lifespan. The Journal of Headache and Pain, 2019; 20(35) Madsen BK, Søgaard K, Andersen LL, Skotte J, Tornøe B, Jensen RH. Neck/shoulder function in tension-type headache patients and the effect of strength training. J Pain Res. 2018 Feb 23;11:445-454.

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Head lice Also known as Pediculus humanus capitis Overview Head lice are tiny insects that live as parasites in the hair of the scalp. They are tiny, six legged wingless insects that exclusively feed on human blood. As normally believed, lice infestation is not a sign of being dirty or sick and there are no long-term health problems associated with it. The major concern of getting lice is the constant irritation and scratching of the head and also the fear of spreading it to others.

Although lice are commonly found in school going kids, it can also affect adults. One can choose to manage lice by finding them manually with hands or trying products which are available to tackle them. Choose a one that fits your needs from the options available such as soaps, creams, shampoos, combing and medicines (doctors may prescribe pills in some cases). Dealing with head lice can be frustrating, but be patient. Follow the treatments and prevention tips religiously as advised by your doctor for lice free hair. Key Facts Usually seen in Common in children between 3 to 12 years of age Gender affected Both males and females but more common in females Body part(s) involved Scalp Hair Mimicking Conditions Dandruff Seborrhea Superficial fungal infection Eczema Folliculitis Scabies Impetigo Treatment Pyrethrin Permethrin Benzyl alcohol lotion 5% Ivermectin lotion 0.5% Malathion lotion 0.5% Spinosad 0.9% topical suspension Lindane shampoo 1% Specialists to consult General physician Pediatrician Dermatologist Causes

A head louse (plural is lice) is a tan or grayish, tiny six-legged insect about the size of a flax seed. It clings to the scalp and hair and feeds on human blood.

The lice eggs or nits hatch into nymphs, which become full grown lice. Adult lice mate in order to produce more nits. The three stages of life cycle are explained in detail:

Lice Eggs or Nits Nits are firmly attached to the hair shaft by a glue-like sticky substance produced by a female louse. They are usually yellow or white in color, oval in shape and 2-3 mm in length. Nits take about six to nine days to hatch. They are not easily visible and are often confused with dandruff.

Nymphs A nit hatches into a small louse called a nymph. The nymphs require human blood for survival and mature into adults in about seven to ten days after hatching.

Adult lice Adults have a life of about one month. The female lays 6 to 10 eggs a day and are usually larger than males. If the louse falls off a person, and does not get human blood, it dies within a day or two. Symptoms Of Head Lice

In most cases, head lice are not immediately noticed after infestation. The eggs laid by head lice are called nits. It is when you experience intense itching on the head and appearance of nits, does it indicate head lice. Some of the common signs and symptoms of head lice are: Itching or the urge to scratch Tingling or a crawling sensation like feeling of something moving in the hair Difficulty in sleeping due to itching as lice are active at night Red sores on the head, neck, and shoulders (caused by scratching) Swollen lymph nodes Head lice and their eggs are most frequently seen by looking closely near the hair root. They are most commonly found behind the ears and upper part of the back of the neck. Rarely, they may be seen on the eyelashes, eyebrows, or beard. Risk Factors for Head Lice

While most people think head lice are caused due to unclean hair and scalp, this is not true. Having head-lice is not a sign of poor personal hygiene or an unclean living environment. Head lice don’t carry bacterial or viral infections. They feed on blood and can affect almost anyone.

However, girls are known to be more at risk than boys to get infected because they tend to have more head to head contact as compared to boys. Also, girls with long, thick and curly hair may find it hard to fight lice infestation as it makes it difficult to find the parasites in their hair.

Head lice cannot jump or fly. They can only crawl. Hence, transmission from one person to another usually happens by direct head-to-head contact. It is often seen within a family or among children who have close contact at schools, play groups etc.

Indirect transmission is not very common, but one may be at risk of getting head lice while sharing items like: Combs Hats or scarves Towels Helmets Bedding Hair brushes or Hair accessories Headphones Clothes Diagnosis Of Head Lice

As head lice are around 2- 3 mm long and have the ability to hold tight onto the hair strands and crawl along, it makes it difficult to find them in your hair. The only way to find them is through combing and manual examination.

1. Thorough combing (using a fine-tooth comb) of wet hair, especially at the back of the head where lice are commonly found, may help in finding lice.
2. Manual examination of the hair may show nits fixed to the base of hair shafts. They can look like dandruff or dirt. Pull the little speck with your fingers. While dandruff and dirt can be removed, nit usually remains stuck. It can be tough to find a nymph or adult louse as they move very fast. Prevention Of Head Lice

The first and foremost tip you need to keep in the mind is the fact that there is no effective method to prevent head lice. But there are ways to stop the spread of head lice from one person to another. So if anyone in your family suffers from head lice, here are a few tips that you must follow. Wash clothes, bedding, and towels in hot water and dry them on the hottest setting. Opt for dry cleaning if you can’t wash these items at home. You can use a vacuum to clean furniture, carpet, and car seats. Things that cannot be washed such as soft toys and pillows should be put into a plastic bag and sealed for at least two weeks. Do not share a bed with a person infested with lice as there is a high possibility of lice getting transferred through direct head to head contact. Do not use the combs, brushes and hair care products used by a person who has head lice. It is wise to throw away or sterilize and use for the future. Do not send your child to school if he/she has head lice. Specialist To Visit If you experience severe itching and scratching due to head lice infestation or if you find it difficult to sleep at night, then it is wise to consult a doctor and get it treated immediately. For this you can either visit a: General Physician Pediatrician Dermatologist Treatment Of Head Lice

Once lice have settled on your scalp, they don’t go away on their own again. In most cases, treatment is aimed at killing the parasites by suffocating them.

Some of the common Over-the-counter treatment options for head lice include:

1. Pyrethrin It is an over-the-counter medicine that contains naturally occurring pyrethroid extracts. It can kill only live lice and not nits (unhatched eggs). This is why a second treatment after 9 to 10 days of first treatment is recommended to kill the newly hatched lice and prevent them from producing new eggs. It is approved for use in kids above 2 years and older.
2. Permethrin It is a synthetically available form of the naturally occurring pyrethrin extracts. Permethrin lotion 1% is an FDA-approved product for the treatment of head lice. It is safe and effective when used as per the doctor’s advice. Just like pyrethrin, it kills live lice but not unhatched eggs, so a second dose is recommended after 9 to 10 days to be effective against head lice.

Some of the common prescription medications for head lice include:

1. Benzyl alcohol lotion, 5% An FDA-approved product for head lice treatment, it is found to be safe and effective when used as per doctor’s direction. It kills lice but not unhatched eggs, so a second treatment after 7 days of the first is recommended.
2. Ivermectin lotion, 0.5% This formulation prevents newly hatched lice from surviving. It is known to be effective when applied on dry hair without nit combing. It can be applied once to dry hair and then rinsed with water after 10 minutes. Ivermectin is also available as a tablet. It can be taken if other topical treatments fail to eliminate lice.
3. Malathion lotion, 0.5% It is known to kill lice and also kills some eggs. A second treatment after 7-9 days of the first is advised to make it more effective in action. It is recommended for use in kids above 6 years and older. As this lotion is flammable, it is not advisable to not use electrical devices such as hair dryers after applying this lotion or when the hair is wet.
4. Spinosad 0.9% topical suspension It kills both live lice and unhatched eggs, hence retreatment is not required. Nit combing is also not required. It is approved for the treatment of children above 6 months and older.
5. Lindane shampoo 1% It is usually recommended for use as a second-line treatment only as overuse or misuse of this drug can cause toxic side-effects on the brain and nervous system. It is not advised for treatment in people with HIV, seizure disorder, pregnant women, breastfeeding women, and those with skin sores. Also, retreatment is strictly not recommended. Home-care For Head Lice

Here are some tips to deal with head lice at home: Wet combing is usually preferred to remove lice from hair for young children. Use a regular brush or comb to remove tangles from wet hair before using a special comb. Use a special fine-toothed comb to carefully comb out nits and lice from hair. Pull the comb through the hair from roots to ends. Comb the entire head at least twice. The nits (lice eggs) mature in 5-7 days so it is important to comb every day for about 2 weeks to ensure you get rid of all the lice. You can get a prescription for kids if combing doesn’t work and the infestation is severe. Beware of using natural remedies like olive oil or butter and toxic substances such as kerosene to get rid of head lice as these might cause more harm than good. Complications Of Head Lice

Head lice if left ignored can lead to severe itching and scratching of the head. If a person scratches an itchy scalp from a head-lice infestation, it is possible for the skin to break and develop an infection. In the worst case scenario, you might need to visit a dermatologist to get a secondary bacterial infection of the skin treated due to head lice. Alternative Therapies for Head Lice

A number of household products are commonly used for the treatment of head lice. But do not use natural remedies such as olive oil, butter, petroleum jelly and mayonnaise to get rid of head lice. It is believed that these remedies work by suffocating the lice but do no good as lice are difficult to suffocate. Avoid using toxic compounds like gasoline and kerosene to get a risk of lice. There is no research evidence on the same. Moreover, it can lead to serious injury. Living With Head Lice

Head lice can be very annoying, but they are not dangerous and they don’t spread any disease. Neither are they a sign of poor hygiene. They need blood for survival which is not dependent on hygiene of the head or surroundings. They can be managed by various treatment options and various other measures like:

1. Do not use combs, hair brushes, hats, bedding, towels, or clothing of a person affected with head lice.
2. The lice and eggs can be removed to some extent with the help of a very fine toothed comb on wet hair.
3. Medication includes pediculicides (medicines which kill lice) with ovicidal effect (which kill nits or unhatched eggs) which is the most important treatment.
4. To prevent reinfestation, nits are killed by using hot air (slightly cooler than a hair dryer) for 30 minutes.
5. Wash all clothes, beddings, and combs in hot water with detergent.
6. Repeat treatment after 7 to 10 days.

Frequently Asked Questions Do head lice live on pillows? Do head lice go away on their own? Can you feel lice crawling? Can a hair dryer kill lice? Can head lice survive on carpet and furniture? Do I need to wash pillows after I have lice? How long can you have lice before noticing? Can vinegar kill head lice? References Mazurek CM, Lee NP. How to manage head lice. West J Med. 2000;172(5):342-345. Cummings C, Finlay JC, MacDonald NE. Head lice infestations: A clinical update. Paediatr Child Health. 2018;23(1):e18-e24. Treatment. Head lice. Parasites. The Centres of Disease Control and Prevention (CDC). Meister L, Ochsendorf F. Head Lice. Dtsch Arztebl Int. 2016;113(45):763-772. Head lice infestations: A clinical update. Paediatr Child Health. 2004;9(9):647-657. Burgess IF, Silverston P. Head lice. BMJ Clin Evid. 2015;2015:1703. InformedHealth.org [Internet]. Cologne, Germany: Institute for Quality and Efficiency in Health Care (IQWiG); 2006-. Head lice: Overview. 2008 Mar 5 [Updated 2018 Dec 13]. Van der Wouden JC, Klootwijk T, Le Cleach L, et al. Interventions for treating head lice. Cochrane Database Syst Rev. 2018;2018(5):CD009321. Coscione S, Kositz C, Marks M. Head Lice: An Under-Recognized Tropical Problem. Am J Trop Med Hyg. 2017;97(6):1636-1637. Saraswat N, Shankar P, Chopra A, Mitra B, Kumar S. Risk Factors Associated with Head Lice Infestation in Rural Pediatric Patients. Indian Dermatol Online J. 2020;11(1):25-28. Sangaré AK, Doumbo OK, Raoult D. Management and Treatment of Human Lice. Biomed Res Int. 2016;2016:8962685. Singhasivanon OU, Lawpoolsri S, Mungthin M, Yimsamran S, Soonthornworasiri N, Krudsood S. Prevalence and Alternative Treatment of Head-Lice Infestation in Rural Thailand: A Community-Based Study. Korean J Parasitol. 2019;57(5):499-504. Falagas ME, Matthaiou DK, Rafailidis PI, Panos G, Pappas G. Worldwide prevalence of head lice. Emerg Infect Dis. 2008;14(9):1493-1494. Bragg BN, Simon LV. Pediculosis. [Updated 2020 Nov 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan.

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Heart attack Also known as Myocardial Infarction and MI Overview Myocardial infarction, commonly known as heart attack, occurs when blood flow to a part of the heart stops, causing damage to the heart muscle.

The heart muscles need oxygen to survive. When the blood supply carrying the oxygen to the heart muscles is blocked due to the buildup of plaque (fatty substances) within the arteries, it leads to damage of the muscles. If the blood flow to the heart is not restored quickly it can cause permanent damage to the muscles, leading to a heart attack.

Myocardial infarction is one of the leading causes of mortality worldwide. The symptoms of a heart attack include chest pain, discomfort in the back, sweating, nausea, vomiting, shortness of breath. In case of a suspected heart attack, the person should be given aspirin and rushed to a hospital immediately. One should not wait for symptoms to settle. The earlier the person is rushed to the hospital, the better are the chances of survival.

A heart attack can be treated with medications and in some cases, surgery might be required. The chances of a second heart attack can be prevented with simple lifestyle modifications, regular check-ups and medications. Key Facts Usually seen in Adults above 60 years of age Gender affected Both men and women Body part(s) involved Heart Blood vessels Mimicking Conditions Aortic dissection Pericarditis Acute gastritis Acute cholecystitis Asthma Esophagitis Myocarditis Pneumothorax Pulmonary embolism Angina pectoris Non-ST segment elevation myocardial infarction (NSTEMI) ST-segment elevation myocardial infarction (STEMI) Pulmonary embolism Necessary health tests/imaging Lipid Profile Test C-reactive protein (CRP) test Cardiac troponins (I and T) Creatine kinase (CK) Creatine kinase-MB (CKMB) Myoglobin Electrocardiogram (EKG / ECG) Holter monitoring or ambulatory ECG or ambulatory EKG Echocardiogram (Echo) Stress test Carotid ultrasound Tilt table tests MRI of the heart Coronary angiography Cardiac CT Scan Cardiac catheterization Radionuclide ventriculography or radionuclide angiography (MUGA Scan) Transesophageal echocardiography (TEE) Positron emission tomography (PET) scan Single photon emission computed tomography (SPECT) Myocardial perfusion imaging (MPI) test Treatment Thrombolytic drugs: Streptokinase, Alteplase & Urokinase Anticoagulants: Apixaban, Dabigatran & Heparin Antiplatelet agent: Aspirin, Clopidogrel & Prasugrel Angiotensin-converting enzyme (ACE) inhibitors: Fosinopril, Captopril & Enalapril Angiotensin receptor blockers: Telmisartan, Losartan & Valsartan Beta blockers: Atenolol, Metoprolol & Propranolol Combined alpha and beta blockers: Carvedilol & Labetalol Statins (cholesterol lowering agents): Atorvastatin, Lovastatin & Rosuvastatin Diuretics: Hydrochlorothiazide, Chlorthalidone & Furosemide Vasodilators: Hydralazine & Minoxidil Surgery: Percutaneous coronary intervention, Bypass surgery & Atherectomy Implantable medical devices: Pacemaker, Implantable cardiac defibrillator (ICDs) & Ventricular assist devices (VADs) Other surgeries: Cardiomyoplasty & Heart transplant Specialists to consult Cardiologist Thoracic surgeon Cardiologist Cardiac surgeon Interventional Cardiologist Vascular surgeon See All Symptoms Of Heart Attack

Most people don’t know they have heart disease until they have chest pain (angina) or a heart attack. Angina (chest pain) is one of the warning signs of a heart attack which can occur hours, days or weeks before an attack and hence, should not be ignored. However, not all heart attacks begin with a sudden crushing chest pain as we might have heard about. In fact, the symptoms of a heart attack vary from person to person. The other common symptoms of a heart attack include: Discomfort or pain in the left shoulders, arms, neck, jaw, or back Shortness of breath Sweating Nausea Lightheadedness Abnormal heartbeat Vomiting Unusual tiredness

If you or anyone experiences chest pain/discomfort or other symptoms of a heart attack rush to a hospital immediately. Consult a doctor even if you feel a mild pain or discomfort in the chest as it might indicate that your heart is in trouble and need help.

How to differentiate between chest pain due to gastric pain and heart attack? To know this, watch a video by our expert.

Causes Of Heart Attack

A heart attack happens when there is a sudden and complete or partial blockage of the artery that supplies blood to the heart. Mostly, coronary artery disease is the underlying cause of a heart attack in which the coronary artery (the blood vessel that supplies blood to the heart) is blocked. The longer the blockage is left untreated, the more is the damage to the heart muscle. If the blood flow is not restored on time, it can lead to permanent damage of the heart muscle. Some of the common causes of a heart attack or myocardial infarction include: Coronary artery disease Coronary artery embolism Atherosclerosis Hypoxia (low level of oxygen in the body) Drug abuse Cocaine-induced ischemia

Why are people suffering from a heart attack at a young age? Cardiologist answers. Click To Watch!

Risk Factors For Heart Attack

Age and family history are one of the key non-modifiable factors which can increase the risk of heart attack. However, there are certain modifiable causes of heart attack which can help you prevent and lower your risk of heart attack if known.

Some of the modifiable risk factors of a heart attack are:

1. High blood pressure High blood pressure puts excess strain on the blood vessels which over time causes constriction of the blood vessels. This impacts the blood flow to the heart and increases the risk of heart attacks. The damage increases further due to the buildup of fat, cholesterol and other substances in the coronary arteries.
2. Diabetes If your blood glucose levels are not under control, it can cause inflammation of these blood vessels, which further affects the blood flow through these vessels. As the blood flow becomes sluggish, over time it can damage the heart muscle and increase the risk of a heart attack.

Are your blood glucose levels under control? Check it now! Click Here!

1. Cholesterol If excess cholesterol gets deposited in the arteries that supply blood to the heart, it is a cause of concern. This overtime can block the blood flow to the heart either partially or completely, which in turn, causes a heart attack.Get your cholesterol level checked with a single click. Book Test Here!
2. Smoking When you smoke, you inhale various harmful chemicals present in cigarettes. These toxins can cause inflammation of the blood vessels, which in turn triggers the accumulation of various substances in the blood such as cholesterol, and calcium. These substances get deposited in the blood vessels, which can block the blood flow to the heart and cause a heart attack.

Planning to quit smoking? Let us help with our quit-smoking range. Explore Now!

1. Excessive alcohol When you drink in excess, it causes dehydration which in turn impacts the blood flow to the heart and other organs. Moreover, alcohol can also lead to inflammation in the blood vessels, which in the long run can cause the deposition of cholesterol and calcium in the blood which makes you prone to a heart attack.
2. Stress Chronic stress causes secretion of cortisol, which can significantly impact the hormonal balance in the body and lead to excess production of cholesterol which in turn may cause a heart attack.
3. Lack of exercise People who lead a sedentary lifestyle not only become overweight and obese but are also at high risk of lifestyle diseases such as diabetes and hypertension, which are known risk factors of a heart attack. Diagnosis Of Heart Attack

If you experience pain in the chest or discomfort, then your doctor might advise some blood and imaging tests to determine the underlying cause. A. Lab tests Some of the commonly advised lab tests include:

1. Lipid Profile Test This is a group of blood tests that detects the levels of different types of lipids in the blood. Lipids are fatty substances that play an important role in a number of body functions. Apart from being structural components of the cells, lipids also act as a source and mode of storage of energy for the body. It typically measures the levels of total cholesterol, High Density Lipoprotein (HDL) cholesterol, Low Density Lipoprotein (LDL) cholesterol, and triglycerides. Other results that may be reported include Very-Low-Density Lipoprotein (VLDL) cholesterol, non-HDL cholesterol, and total cholesterol to HDL cholesterol ratio.
2. C-reactive protein (CRP) test C-reactive Protein (CRP) is a protein secreted by the liver in response to inflammation caused by injury, infection, or otherwise. The C-reactive protein (Quantitative) test measures the levels of C-reactive protein in blood to determine the presence of inflammation or infection and to monitor treatment.
3. Cardiac troponins (I and T) Troponins are proteins which are found in the heart muscles and skeletal muscle fibres. These are known to help regulate muscular contraction. This test helps measure the level of cardiac-specific troponin in the blood thereby helping in the diagnosis of any heart injury or damage.
4. Creatine kinase (CK) Also known as Total CK, Creatine Phosphokinase, and CPK test, this test is done to detect and monitor damage to muscle. It is also done to diagnose conditions which are associated with muscle damage and to detect any possible case of heart attack. A more specific test known as Creatine Kinase-MB (CKMB) is also recommended.This test measures the enzyme Creatine Kinase (CK) MB, which is mainly found in cells of heart muscles, in blood. It is also found in skeletal muscles but in a lesser amount.
5. Myoglobin This assay is useful for assessing muscle damage from any cause. Elevated myoglobin levels are seen in cases of acute muscle injury, resuscitation, myopathies, shock & strenuous body activity. B. Imaging & other tests In addition to the blood work, some of the other tests that can help in the diagnosis of myocardial infarction or a blockage in the heart include:
6. Electrocardiogram (EKG / ECG): This resting 12 lead ECG test is the first-line diagnostic tool for the diagnosis of acute coronary syndrome (ACS). It should be obtained within 10 minutes of the patient’s arrival in the emergency department. Acute MI is often associated with dynamic changes in the ECG waveform. Serial ECG monitoring can provide important clues to the diagnosis if the initial EKG is non-diagnostic at initial presentation.
7. Holter monitoring or ambulatory ECG or ambulatory EKG: A holter monitor is a small, wearable device that keeps track of your heart rhythm. This monitoring is used to diagnose intermittent cardiac arrhythmias.
8. Echocardiography: A cardiac echo is used to identify abnormalities in the heart’s structure and function.
9. Stress test:This test involves measuring the performance of the heart while undergoing exercise of gradually increasing intensity on a treadmill.
10. Carotid ultrasound: A carotid ultrasound is an important test that can detect narrowing, or stenosis of the carotid arteries. Carotid artery stenosis is a major risk factor for stroke.
11. Tilt table test: The tilt table test (also called a passive head-up tilt test or head upright tilt test) records your blood pressure, heart rhythm and heart rate on a beat-by-beat basis
12. MRI of the heart: A heart MRI (magnetic resonance imaging) uses magnets and radio waves to create an image of your heart and nearby blood vessels.
13. Cardiac CT: The Computed Tomography (CT) Scan of heart is an imaging test which is used to create a detailed three dimensional image of the heart and coronary blood vessels and helps to assess the condition of the blood vessels and understand blood flow through them and help to diagnose various heart diseases.
14. Coronary angiography: A coronary angiogram is a procedure that uses X-ray imaging to check the heart’s blood vessels.
15. Cardiac catheterization: Cardiac catheterization (cardiac cath or heart cath) is a procedure to examine the working of the heart. A thin, hollow tube called a catheter is inserted into a large blood vessel that leads to your heart to find out the origin of disease of the heart muscle, valves or coronary (heart) arteries.
16. Radionuclide ventriculography or radionuclide angiography (MUGA Scan): A radionuclide angiogram is a test used to gather images of the heart throughout its pumping cycle it is also referred to as a MUGA scan (multigated acquisition scan) or blood pool scan.
17. Transesophageal echocardiography (TEE): TEE is a test that produces pictures of the heart. TEE uses high-frequency sound waves (ultrasound) to make detailed pictures of your heart and the arteries surrounding it. C. Nuclear heart scans Similar to angiography, these scans use a radioactive dye injected into your blood. What sets them apart from an angiogram is that they use computer-enhanced methods like computed tomography (CT) or positron emission tomography (PET) scans.
18. Positron emission tomography (PET) scan: This test uses radioactive dyes to produce pictures of the heart. PET scans differentiate between healthy and damaged heart muscles.
19. Single photon emission computed tomography (SPECT): A SPECT scan uses radioactive tracers that are injected into blood to produce pictures of the heart to check how well blood is flowing to the heart.
20. Myocardial perfusion imaging (MPI) test: This test shows how well blood flows through your heart muscle. It also helps to show areas of the heart muscle that aren’t getting enough blood. Celebs affected Rema D’Souza In 2021, Bollywood choreographer and director, Remo D’souza was rushed to a hospital in Mumbai after he suffered a heart attack. The 46-year-old is known to be on his road to recovery now. Raj Kaushal Filmmaker and producer Raj Kaushal succumbed to heart attack in 2021. He is survived by his wife Mandira Bedi and two kids. Kapil Dev Former captain of the Indian cricket team, Kapil Dev, suffered a heart attack in 2020. He was immediately rushed to a hospital after he complained about chest pain. He later underwent angioplasty surgery. Larry King The late American TV host, Larry King, suffered a heart attack in 1987, which he attributed to his smoking. He stated in an interview that he smoked from 16 years to 54 years and finally quit smoking after he had a heart attack. He has never smoked since then. Prevention Of Heart Attack
21. Do not ignore symptoms of heart disease The most common symptom is a chest pain (angina) which originates in the center of the chest area, behind the breastbone, is typical of a heart attack. Moreover, a chest pain which occurs after walking some distance which was not experienced initially can also indicate a heart attack. Other common symptoms include shortness of breath, sweating, and pain or discomfort in the jaw, arms, and shoulder. So if you are experiencing any of these symptoms, it is recommended to immediately go to a hospital or consult a doctor at the earliest.
22. Go for regular health check-ups Diabetes, high blood pressure, and high cholesterol level are one of the key factors that put you at risk of heart disease. This is the reason why every person who suffers from high blood glucose level, high blood pressure and high cholesterol level should get a regular health check-up done every year. It goes without saying that the frequency to get a health check-up increases as you age and for people with a family history of heart disease. Ideally, it is better to get a heart checkup done once you cross 45 years of age, but with increasing incidence in young people (above 30 years), even young adults should get a health check-up every year without fail.

Keep your heart healthy with our healthy heart package. Click Here!

1. Do not self medicate Popping a painkiller is one of the most common ways to treat pain at home. However, using these medicines more often than not is not a good idea as it might lead to health complications and side-effects. Studies have reported that long-term opioid therapy can increase your risk of cardiovascular diseases, especially myocardial infarction. Self-medication without consulting your doctor is not at all recommended as it might lead to harmful side-effects. Your doctor will weigh the pros and cons of the medication based on your overall health and condition. So think twice before you blindly take any medication without informing your doctor as it might affect you later. It is not advised to consult a chemist or self-medicate for any heart disease.
2. Maintain a good relationship with your family doctor One of the key reasons why most patients fail to consult a doctor and search the internet for information pertaining to their condition is the lack of a good relationship between their family doctor. Most people do not feel comfortable to ask their doctor about problems that affect them on a day to day basis, which according to them are silly things. Even to know why a particular medication is recommended to them, they will go online but not ask their doctor because it is a silly reason to ask. This is not right. Be open to your family physician and discuss your health in detail, who will guide you in the right direction.

Consult India’s best doctors for your health problems. Click Here!

1. Exercise is the key to keep your heart healthy Most of us have a very tight schedule which makes it difficult to spend the time exercising. Although people are turning out to be health conscious and hitting the gym to burn calories and stay fit, it becomes difficult to exercise regularly. But if you are at risk of heart disease or are planning to keep your heart healthy, ensure you lead an active lifestyle. This doesn’t include exercising day in and out but ensuring you workout daily or at least walk every day is enough. You can walk for 30 – 45 minutes for five days a week or walk 10,000 steps a day to stay healthy.
2. Diet for healthy heart A healthy diet rich in vitamins, minerals, proteins, fiber, and fats can help you keep your heart healthy.

Whole grains: Whole grains, vegetables, and fruits are considered to be one of the great natural sources of fiber. They contain soluble fibrous phytosterols which not only decreases the absorption of fat and sugar in the small intestine but also helps to lower the level of triglycerides in the blood. Good sources of soluble fiber are oats, barley, legumes, and psyllium husks.

Fruits: Fruits and vegetables contain high levels of antioxidants that protect the circulating cholesterol from oxidation which can cause free radical generation. These free radicals can negatively affect the overall health and increase the level of cholesterol in the blood, thereby offering an overall protective effect for the heart. Eat more vegetables like cauliflower, broccoli, and celery as well as potatoes with skin.

Fish: According to the American Heart Association, eating two servings of fatty fish per week is good for the heart. Include fatty fish rich in omega-3 fats such as salmon, herring, sardines, mackerel and tuna in the diet to improve your triglyceride levels and keep cholesterol in control.

Garlic: Garlic not only lowered triglyceride levels but it also reduced total cholesterol levels. Moreover, it also helps to regulate glucose homeostasis and insulin secretion aiding to keep your blood glucose levels in check along with triglycerides.

Nuts: Nuts are undoubtedly one of the best sources of fiber, omega-3 fatty acids, and unsaturated fats, all of which are heart-healthy nutrients. As these are obtained from trees, they are rich in plant fats, sterols, and nutrients which are good for overall health. If you have already suffered a heart attack or have undergone heart surgery, it goes without saying that strict diet control is needed. Here is a sample Indian diet chart for heart patients by an expert nutritionist. Click To Read!

Specialist To Visit

The symptoms of heart attack should never be ignored. The signs and symptoms that indicate urgent medical attention include:

Chest discomfort (lasts few minutes or goes away and comes back) Discomfort in arms/neck/back/jaw/stomach Shortness of breath Sweating Feeling nauseated/lightheadedness

If you experience any signs and symptoms of a heart attack, it is best to consult a doctor immediately. Although a general physician (Family Doctor) is the first choice, you can also get in touch with specialists such as a: Cardiologist Cardiac surgeon Interventional cardiologist Thoracic surgeon Vascular surgeon

Other specialists that can also be consulted (if you have a pre-existing or chronic illness) include: Nutritionist Diabetologist Treatment Of Heart Attack

Depending on the condition and the extent of the block, your doctor might advise medications or recommend surgery. A. Medications Heart attack treatment involves a variety of drugs. Your doctor will recommend the best combination of heart attack medications for your situation. Some of the common drugs include:

1. Thrombolytic drugs Thrombolytic or clot-busting medications are intravenous (IV) medications that cause blood clots to break down and dissolve. These medications are usually used only within the first 12 hours after a heart attack. Examples of this class of drugs include: Streptokinase Alteplase Urokinase
2. Anticoagulants Anticoagulants, commonly known as blood thinners, are chemical substances that prevent or reduce coagulation of blood, prolonging the clotting time. Examples of this class of drugs include: Apixaban Dabigatran Heparin Rivaroxaban Warfarin
3. Antiplatelet agent Antiplatelet agents are medicines that reduce the ability of platelets to stick together (called platelet aggregation) and inhibit the formation of blood clots. These are also known as platelet agglutination inhibitors or platelet aggregation inhibitors. Drugs that belong to this class are: Aspirin Clopidogrel Prasugrel Ticagrelor
4. Angiotensin-converting enzyme (ACE) inhibitors These inhibit the angiotensin-converting enzyme which regulates salt and water retention in the body. They also lower blood pressure by relaxing the blood vessels, decreasing blood volume and increasing sodium excretion in the urine. ACE inhibitors are recommended in patients with systolic left ventricular dysfunction, or heart failure, hypertension, or diabetes. A few examples in this class of drugs are: Fosinopril Captopril Enalapril Ramipril Lisinopril Benazepril
5. Angiotensin receptor blockers If you are unable to tolerate ACE inhibitors, ARBs are used. They block angiotensin-II (a hormone which causes your blood vessel to constrict) from binding to its receptor and antagonize its action. This helps reduce your blood pressure. Some examples in this class of drugs are: Telmisartan Losartan Valsartan Irbesartan Fimasartan Olmesartan
6. Beta blockers Beta-blockers are recommended in patients with LVEF (left ventricular ejection fraction) less than 40% if no other contraindications are present. Examples of some of the drugs in this class are: Atenolol Metoprolol Propranolol Oxprenolol Labetalol
7. Combined alpha and beta blockers This type of heart disease medication helps lower blood pressure. It does this by slowing your heart rate and reducing nerve impulses that tell vessels to tighten. Examples of combined alpha- and beta-blockers include Carvedilol Labetalol
8. Calcium channel blockers They bind to calcium channels in the blood vessels and block the entry of calcium. This causes dilatation of the blood vessels which helps decrease blood pressure. Some of the commonly used calcium channel blockers include Amlodipine Nifedipine Clevidipine Verapamil Diltiazem
9. Statins (cholesterol lowering agents) It works by reducing the amount of “bad” cholesterol (LDL) and raising the amount of “good” cholesterol (HDL) in your blood. Statins block the enzyme in the liver that is responsible for making cholesterol. Lowering the amount of cholesterol reduces the chances of heart diseases and helps you remain healthier for longer. Some of the commonly prescribed cholesterol lowering medications include: Atorvastatin Lovastatin Rosuvastatin
10. Diuretics Diuretics like hydrochlorothiazide eliminate excess salt and water from the body and also decrease calcium excretion. There are different types of diuretics that act at different sites of the renal tubules (small tubes) in the nephrons (functional unit of kidney). A few types of diuretics used in the treatment of hypertension are Hydrochlorothiazide Chlorthalidone Furosemide Triamterene Amiloride
11. Vasodilators It helps to lower blood pressure by widening the blood vessels and decreasing their resistance thereby helping the blood to pass through more easily. Hydralazine and minoxidil are vasodilators that work directly on the vessel walls to decrease blood pressure. Nitroglycerin which is used to relieve chest pain is a powerful vasodilator. B. Surgery
12. Percutaneous coronary intervention Also known as coronary angioplasty, it is a nonsurgical procedure that improves blood flow to your heart. This procedure uses a catheter-based device inserted into a major blood vessel (usually one near your upper thigh).

Once the catheter is inserted into the blood vessel through a small incision, the technician threads it up to the blocked artery on your heart. Once it reaches the location of the blockage, the technician will inflate a small balloon on the end of the device to widen the blood vessel and clear the blockage. Angioplasty is often combined with the placement of a small wire mesh tube called a stent. The stent helps prop the artery open, decreasing its chance of narrowing again. Most stents are coated with medication to help keep the artery open (drug-eluting stents).

1. Bypass surgery In this, a surgeon takes a section of healthy blood vessels, often from inside the chest wall or from the lower leg, and attaches the ends above and below the blocked artery so that blood flow is redirected around the narrowed part of the diseased artery. With a new pathway, blood flow to the heart muscle improves. Patients who have severe blockages of their coronary arteries undergo coronary artery bypass grafting. This surgery is often called open-heart surgery, bypass surgery or CAB. This is useful in treating blocked heart arteries by creating new passages for blood to flow to your heart muscle.
2. Atherectomy It is similar to angioplasty except that the catheter has a rotating shaver on its tip to cut away plaque from the artery. Once the catheter is inserted into the blood vessel through a small incision, the provider threads it up to the blocked artery on your heart. Once it reaches the location of the blockage, the provider will inflate a small balloon on the end of the device to widen the blood vessel and clear the blockage.
3. Implantable medical devices These include pacemaker and implantable cardioverter defibrillator (ICD) which help to control the heart rhythm and ventricular assist devices which support the heart and blood circulation. Pacemaker: It is a small battery-operated device which helps your heart to beat in a regular pattern. Implantable cardiac defibrillator (ICDs): It is a small battery-powered device placed in your chest to detect and stop abnormal heartbeats. This device delivers electric shocks inside the heart to restore a normal heart rhythm. Ventricular assist devices (VADs): This is also known as a mechanical circulatory support device, which is an implantable mechanical pump that helps pump blood from the lower chambers of your heart (the ventricles) to the rest of your body.
4. Other surgeries Cardiomyoplasty: An experimental procedure in which healthy skeletal muscles are taken from a patient’s back or abdomen and wrapped around the heart to provide support for the failing heart. Radiofrequency ablation: A catheter with an electrode at its tip is guided through the veins to the heart muscle to carefully create tiny scars in the heart to block abnormal electrical signals and correct heart arrhythmias. Transmyocardial revascularization (TMR): A laser is used to create a series of channels from the outside of the heart into the heart’s pumping chamber. Heart transplant: In this procedure a diseased heart is removed and replaced with a donated healthy human heart. Home Care For Heart Attack

Do’s and Don’ts when you suspect a heart attack What should you do when you suspect that you or anyone in your family is having a heart attack? The first thing to do is seek medical help immediately. In the absence of medical aid, the following tips may help you:

1. Know the symptoms At times, chest pain is absent in certain cases of a heart attack, known as a ‘Silent Heart Attack’. In this case, pay attention to the associated symptoms that you feel such as long deep breathing, dizziness, nausea, anxiety or a panic attack. You might be able to identify a heart attack just because of the vague discomfort that you are going through at that moment.
2. Act fast Most attacks are not very rapid and give us enough time to act. Therefore, it is necessary to have complete knowledge about a heart attack and ability to act quickly. People often confuse a heart attack with other diseases like indigestion, flu or panic attack. However, if you are not sure of what exactly is happening to you, it is best to seek help immediately.
3. Know which medicine to take Pop in an aspirin if you feel you are having a heart attack. Most people feel better after chewing a tablet of aspirin at the beginning of a heart attack. However, aspirin may be harmful to some. Hence, please ask your physician in advance the most appropriate medicine for you in case of a heart attack.
4. Seek immediate help Shout for help immediately. Do not feel shy or scared to make someone call for medical assistance immediately. If immediate help cannot be attained, then ask for someone, like a person next to you or a relative/friend, to take you to the nearest hospital. During this time, any kind of activity will cause more harm to the already damaged heart muscles. Stop whatever you are doing and just sit or lie down calmly and ask to be taken to a hospital. Do not travel alone or drive on your own to a clinic/hospital. In addition to taking medications as recommended by your doctor, there are few things you need to take into consideration to keep your heart healthy. These include:
5. Incorporate more fiber in your diet Include foods such as whole wheat grains or cereals, peas, pulses, fruits such as oranges, pears, melons and vegetables such as carrots and broccoli. There is more fiber in a single fruit than a glass of fruit juice which is made using 3 – 4 whole fruits.
6. Limit fruits especially if you are diabetic Choose whole fruits and vegetables to up your intake of fiber and other nutrients. But, fruit should be limited, especially for people who are diabetic. Incorporate berries, oranges, sweet limes, apple and pear which contain less sugar and more fiber.
7. Salads are a must in every meal Vegetables are a great source of nutrients and including raw vegetables in the form of salad is a healthy idea. One big bowl of salad that contains vegetables and sprouts is mandatory for a complete meal. Sprouts are rich in proteins and fiber so two servings per day is a must.
8. Add fenugreek (methi) seeds to your food It is a rich source of soluble fiber and contains active compounds which reduce cholesterol and are good for the heart. Moreover, if you suffer from diabetes along with heart problems, incorporating methi in the form of raw seeds in curries, dal or curd can keep the heart healthy.
9. Restrict intake of salt For healthy individuals, the daily recommended dose of salt is 5-6 gm per day. But if you have a history of heart disease or have undergone heart surgery, then the daily intake of salt should not exceed 2 gm, which is about half a teaspoon.
10. Choose cooking oils wisely Opt for the ones that contain high amounts of essential fatty acids such as monounsaturated fatty acids (MUFA) and polyunsaturated fatty acids (PUFA). Most of the oils available in the market such as groundnut oil, sunflower oil, safflower oil, mustard oil, sesame oil, rice bran oil, etc. are good for the heart. However, instead of using one type of cooking oil, use different oils every month for added benefits.
11. Keep a tab on the amount of cooking oil Whichever cooking oil you are using, it is important to keep a tab on the amount. Ensure that it should not be more than 15 ml per day, which is about three teaspoons of oil. You can also incorporate ghee along with cooking oils but make sure it should not exceed the daily limit of 15 ml. For example, instead of three teaspoons of oil, you can include one teaspoon of ghee and two teaspoons of oil per day.
12. Follow portion control Whatever you eat, spread it across the entire day and eat in limited amounts. Eating three full course meals can add pressure on the stomach and other organs of the body including the heart. It is wise to have six small meals per day or have two meals with breaks such as breakfast, mid-morning snack, mid-afternoon snack, and evening snack. Moreover, dinner should be light and easy-to-digest food. Avoid heavy foods and gas-forming foods such as beans, cauliflower, etc at dinner time.
13. Nuts are good for the heart They are the best and rich source of omega-3 fatty acids, which is an essential fatty acid that plays a key role in maintaining your heart health. It helps to maintain blood pressure, lower triglyceride level, reduce cholesterol, lower the risk of inflammation and prevent heart disease. Almonds are rich in mono-unsaturated fatty acids (MUFA) and walnuts in poly-unsaturated fatty acids (PUFA), both of which are good for the heart.
14. Snack wisely Include light foods such as boiled corn, puffed rice (kurmura) or bhel, sprouts chaat, vegetable chaat or boiled corn chaat. Packaged foods are a strict no-no for heart patients. Freshly cooked homemade food is your best bet. Fruits should be eaten as a mid-morning snack. Avoid fruits after lunch and dinner.

Is it angina, heartburn or heart attack? know the difference! Click To Read!

Complications Of Heart Attack

If left ignored or unattended, myocardial infarction can cause severe damage to the heart. Some of the health complications that may result due to a heart attack include: Angina Arrhythmias Cardiogenic shock Cardiac failure Cardiac rupture Myocardial dysfunction Peripheral embolism Pericarditis Pericardial effusion Alternative Therapies Of Heart Attack

There are no studies which highlight the significance of ayurveda or homeopathy remedies for heart attack. However, there are few lifestyle modifications and yoga asanas which are known to improve your heart health. Yoga asanas for healthy heart Cardio and weight training work to revive up your heart rate and build muscle mass. However, yoga, as a complementary practice, can assist in preventing or managing heart disease. A combination of adequate weight training, aerobics and yoga can work wonders in improving heart health

Yoga asanas that can help maintain your heart health include Padangusthasana (big toe pose): Known to be a good pose to stretch all the muscles in the body, this asana stimulates the abdominal organs and heart and also slows down the heart rate. Janu sirsasana A: This asana stretches the entire back of the body. As the heart is brought close to gravity, the heart rate becomes slower and calmer. It is also known to calm the mind and relax all the major organs of the body. Utthita hastapadasana (extended hands and feet pose): This pose focuses on breathing and posture and also helps calm the mind. It helps in lowering the heart rate, promoting blood circulation and improving the all-round functioning of the heart. Setu bandha sarvangasana (Bridge Pose): This pose facilitates deep breathing, deeply opens up the chest and improves blood flow to the chest region. It also improves blood circulation to the heart region and helps control blood pressure. Living With Heart Attack

On an average, about a fourth of heart attack victims who survived the first year are likely to experience another within the next four to six years.

Some of the easy, yet suggestively consistent, steps to prevent a second heart attack and lead a lifestyle are:

1. Follow healthy and a balanced diet routine Simple dietary modifications like less intake of cholesterol-rich foods, especially trans fat and saturated fat, added sugars, salt and caffeine that can harm the general well being of a person. Instead, an increased intake of fresh fruits, vegetables, legumes, and beans can be beneficial. Also, it is good to supplement the diet with Omega-3 fatty acids that are helpful for the metabolism.

Want a personalized diet plan? Get in touch with our expert. Consult A Nutritionist!

1. Daily exercise and walk Regular and mild exercising routine boosts up the body metabolism, maintains a healthy heart and boosts the general mood of a person.
2. Quit smoking and drinking Smoking is known to cause heavy damage to the normal rhythm of the heart and its arteries. Cutting down on smoking reduces the risk of a second heart attack by about 50%.

Drinking, on the other hand, poses no threat when done in permissible limits. However, beyond the recommended dose, alcohol may raise the blood pressure; thereby increasing the chances of a heart attack.

1. Regular and routine health checkups It is good to stick to the suggested medications by the practitioner after the first incidence of heart attack. Also, following timely checks and follow-ups are equally important. Do not stop or alter the medications without your doctor’s advice.
2. Lead a healthy psychosocial life Socialize, discuss your problems with concerned persons, get adequate sleep, consult professionals in case of need, limit emotional involvement with anyone, and join a laughter club. All these activities will help you lead a stress-free happy life. Frequently Asked Questions What is the difference between cardiac arrest, heart failure and myocardial infarction? What is a silent heart attack? Is there a difference between a heart attack and a myocardial infarction? What are the first signs of a heart attack in a woman? Is it gas or a heart attack? When to go to a doctor for chest pain? What does an angina attack feel like? References Ojha N, Dhamoon AS. Myocardial Infarction. [Updated 2021 Aug 11]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Mechanic OJ, Gavin M, Grossman SA. Acute Myocardial Infarction. [Updated 2021 Aug 11]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Thygesen K, Alpert JS, Jaffe AS, et al. Fourth Universal Definition of Myocardial Infarction (2018). Circulation. 2018 Nov 13;138(20):e618-e651. Heart Attack. American Heart Association. Saleh M, Ambrose JA. Understanding myocardial infarction. F1000Res. 2018;7:F1000 Faculty Rev-1378. Lu L, Liu M, Sun R, Zheng Y, Zhang P. Myocardial Infarction: Symptoms and Treatments. Cell Biochem Biophys. 2015 Jul;72(3):865-7. Lu L, Liu M, Sun R, Zheng Y, Zhang P. Myocardial Infarction: Symptoms and Treatments. Cell Biochem Biophys. 2015 Jul;72(3):865-7. Frangogiannis NG. Pathophysiology of Myocardial Infarction. Compr Physiol. 2015 Sep 20;5(4):1841-75. Reddy K, Khaliq A, Henning RJ. Recent advances in the diagnosis and treatment of acute myocardial infarction. World J Cardiol. 2015;7(5):243-276. Castaldo L, Narváez A, Izzo L, et al. Red Wine Consumption and Cardiovascular Health. Molecules. 2019;24(19):3626. Ogungbe O, Akil L, Ahmad HA. Exploring Unconventional Risk-Factors for Cardiovascular Diseases: Has Opioid Therapy Been Overlooked?. Int J Environ Res Public Health. 2019;16(14):2564. What is a heart attack? Heart Attack Symptoms, Risk, and Recovery. The Centers For Disease Prevention and Control (CDC). Last reviewed in Jan 2021.

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Heart failure Also known as Congestive heart failure and CHF Overview The first thought that comes to your mind when you hear about “heart failure” is that the heart is no longer working and you can’t do anything about it. But this is not true. In reality, heart failure is a condition in which the heart fails to pump blood to the body as efficiently as it should.

To put it technically, heart failure is a complex condition that impairs the ability of the lower chambers of the heart (called ventricles) to eject blood due to an underlying structural or functional heart problem. The condition develops over time as the heart muscles become weaker or stiffer, which ultimately affects the pumping capacity of the heart.

While the risk of suffering from heart failure increases with age, there are certain factors that can put you at risk even at a young age. These include having a high BMI (body mass index), unhealthy choices such as smoking, sedentary lifestyle, consuming a diet high in saturated and trans fats as well as diseases that damage your heart.

There are various treatment options that can help in heart failure and many people with heart failure live active lives. Medications for heart failure aim to manage the symptoms, improve the quality of life as well as increase the lifespan. In some cases, medical devices, surgery or heart transplant are recommended to help the heart function better. Key Facts Usually seen in Individuals above 65 years of age Gender affected Both men and women but common in men Body part(s) involved Heart Mimicking Conditions Acute kidney injury Acute respiratory distress syndrome (ARDS) Bacterial pneumonia Cirrhosis Community-acquired pneumonia (CAP) Emphysema Interstitial (nonidiopathic) pulmonary fibrosis Myocardial infarction Nephrotic syndrome Pneumothorax imaging Pulmonary embolism (PE) Respiratory failure Venous insufficiency Viral pneumonia Necessary health tests/imaging Blood tests: NT-pro B-type Natriuretic Peptide (BNP) & Electrolytes (sodium & potassium) Chest X-ray Electrocardiography (ECG or EKG) Echocardiography (Echo) Multigated acquisition scan (MUGA scan) Treadmill test (TMT) or exercise stress test Treatment Diuretics: Hydrochlorothiazide & Chlorthalidone Beta-blockers: Atenolol & Metoprolol Aldosterone antagonist: Spironolactone & Eplerenone Angiotensin II receptor blockers (ARBs): Telmisartan & Losartan ACE inhibitors: Captopril & Enalapril Other drugs: Sacubitril+Valsartan, Ivabradine, Isosorbide Dinitrate + Hydralazine & Dapagliflozin Surgery: Heart transplantation, Angioplasty, Coronary artery bypass & Valve replacement Devices: Implantable cardiac defibrillator (ICDs) & Cardiac resynchronization therapy Specialists to consult Cardiologist Cardiac surgeon Symptoms Of Heart Failure

Before knowing about the symptoms of heart failure, it is important to know what happens in heart failure. What happens in heart failure?

The heart, which is just the size of your fist, serves the action of continuously pumping blood over the body. The heart has four chamber – two upper chambers called atria and two lower chambers called ventricles. For the heart to function properly, the four chambers must beat in an organized way.

But in some cases, the heart cannot pump blood with enough force to reach the rest of the organs, or the heart may not get filled with enough blood to meet the demands of other organs. Since the heart ‘fails’ to meet the body’s needs for blood and oxygen, the condition is termed as heart failure.

Heart failure can affect the right or the left side of the heart, or even both sides. However, it usually affects the left side first.

Right-side heart failure: It occurs if the heart is not able to pump adequate blood to the lungs for oxygenation.

Left-side heart failure: It occurs if adequate oxygen-rich blood cannot be pumped by heart to the rest of the organs.

Signs and symptoms to watch out for!

The symptoms of heart failure may start suddenly or progress gradually over weeks or months. The most common symptoms of heart failure and their reasons are listed below:

Breathlessness: In left-sided heart failure, inefficient pumping of blood causes extra fluid to collect in your lungs, causing rapid and shallow breathing.

Persistent cough and wheezing: The fluid build-up in lungs can also make you cough and wake up at night. The persistent cough may be accompanied by white or blood-tinged mucus.

Tiredness or fatigue: Since the heart is incapacitated to pump enough blood, the body diverts blood away from less vital organs, particularly muscles in the limbs leading to tiredness.

Swelling of feet, ankles and legs: In right-sided heart failure, fluid may back up into the abdomen, legs and feet, causing swelling.

In addition to the above-listed symptoms, other symptoms that can occur in patients with heart failure are: Loss of appetite Increased heart rate Dizziness Confusion In systolic heart failure (also called heart failure with reduced ejection fraction), the left ventricle can’t contract vigorously, indicating a pumping problem. In heart failure with preserved ejection fraction, the left ventricle can’t relax or fill fully, indicating a filling defect. Types Of Heart Failure

There are four stages of heart failure based on severity: Symptom-free (asymptomatic) heart failure: There are no symptoms, but certain tests can detect that the heart isn’t performing as well as it should. Mild heart failure: Strenuous exercises like walking up the stairs causes symptoms like extreme tiredness or shortness of breath. However, mild activity doesn’t cause any symptoms. Moderate heart failure: Even everyday activities and light physical exercise like walking on a level surface can cause symptoms. Severe heart failure: Symptoms occur at rest or during even the minor physical activity. You can only lie down if your upper body is elevated. Some people with severe heart failure are bedridden. Your heart along with the blood vessels that feed it is one big muscular structure. So, when this structure starts to fail, you can get signs and symptoms anywhere in the body. Here are seven surprising clues that your heart needs a check. Click To Know!

Causes Of Heart Failure

Most people who develop heart failure have (or had) another heart condition first. The most common conditions that can lead to heart failure are: Coronary artery disease: It causes build-up of plaque (fatty deposits) in the arteries that supply blood to your heart muscle leading to narrowing of the blood vessels. Heart attack (myocardial infarction): It reduces/blocks blood flow to the heart muscle and impacts the heart’s ability to pump blood. Cardiomyopathy (heart muscle disease): These diseases of the heart muscle may lead to left ventricle dysfunction and damage the heart muscles and change the structure of your heart making it harder for your heart to pump blood. Valvular heart disease (disease of heart valves): Rheumatic fever may permanently damage the heart valves leading to heart failure. Hypertension (high blood pressure): When the blood pressure is high, your heart has to pump harder than normal to maintain blood circulation. Atrial fibrillation (AF): It refers to the irregular and rapid beating of the heart. It is both a cause and consequence of heart failure. Untreated congenital heart defects: Although rare, it is a condition in which the heart and its chambers may not be formed correctly at birth. Anemia: Anemia can worsen cardiac function and add further stress to the heart, which may lead to heart failure. Infections: Infections activates the body’s immune response, generating inflammation that causes rupture and blockages that lead to heart failure. Heart failure should not be confused with a heart attack Heart attack comes on suddenly and may happen without any warning. However, heart failure occurs more gradually. You might even have it for years before you notice any symptoms. Click To Read More! Risk Factors For Heart Failure

You can know your risk of having heart failure by taking a look at the following modifiable and non-modifiable risk factors.

Non-modifiable factors

Age: By the time you get older, diseases you may have been suffering from for many years like coronary artery disease, diabetes & hypertension might have damaged your heart, increasing the risk of heart failure.

Gender: Women are at a higher risk of heart failure if they have hypertension, while men are greatly impacted if they have coronary artery disease.

Race/ethnicity: Race/ethnicity can be a risk factor for heart failure. Heart failure strikes young in black-skinned people, particularly men, and people of Hispanic (Spanish) origin.

Genetic predisposition: Growing numbers of Indians are being afflicted and genetic predisposition is one of the reasons. Indians have high levels of lipoprotein (a), a type of cholesterol, which is reported to accentuate the risk associated with other risk factors of heart failure.

Modifiable factors Some of the conditions that can up your risk of heart failure (but can be managed) include: Heart disease Diabetes mellitus Sleep apnea Obesity Lifestyle factors such as smoking Diagnosis Of Heart Failure

To diagnose heart failure, your doctor will take a careful medical history, review your symptoms and perform a physical examination. Your doctor will also check for the presence of risk factors such as high blood pressure, coronary artery disease or diabetes. You may have to undergo the following tests to diagnose heart failure: Blood tests: Some of the common blood tests that can help determine heart failure and its impact on other organs include: Electrolytes (sodium, potassium) Blood glucose Serum creatinine Albumin BUN (blood urea nitrogen) Estimated glomerular filtration rate (eGFR) Thyroid-stimulating hormone (TSH) NT-pro B-type natriuretic peptide (BNP)

Chest X-ray: It shows accumulation of fluid in the lungs & and enlargement of heart in patients with heart failure.

Electrocardiography (ECG or EKG): This test records the electrical activity in the heart by using sensors that are connected with wires to an electrocardiograph monitor. It is an important diagnostic method for determining heart failure associated with conditions like myocardial infarction, atrial fibrillation, abnormalities in heart rhythm, or acute ischemia.

Echocardiography (Echo): An echocardiogram is an ultrasound, which is used to determine volume of the blood in the heart, mass, and valve functioning of the heart.

Multigated acquisition scan (MUGA scan): This is a non-invasive diagnostic test that shows how well the lower chambers of your heart (ventricles) are pumping blood. During this test a small amount of a radioactive tracer or dye is injected into a vein. A special gamma camera detects the radiation released by the tracer to create video of the beating heart.

Ejection fraction (EF): It is a measurement of the blood pumped out of the heart each time it contracts. EF can be measured using an echocardiogram, multigated acquisition scan, nuclear medicine scan, magnetic resonance imaging (MRI) or during a cardiac catheterization. According to the American Heart Association, the normal ejection fraction is about 50% to 75%.

Treadmill test (TMT) or exercise stress test: This test shows how the heart works during physical activity. The test involves walking on a treadmill or stationary bike at different levels of difficulty while your heart rate, breathing and blood pressure are recorded. If someone cannot exercise, a drug may be used to mimic the effect of exercise on the heart. Celebs affected Elizabeth Taylor The legendary American actress was diagnosed with congestive heart failure. She was able to manage her condition for years with treatment options. Prevention Of Heart Failure

Prevention of diseases that damage the heart is the best way to keep heart failure at bay. If you suffer from any of the conditions that cause heart failure, then prompt, optimal management of the condition is important. Recognizing and avoiding all the factors that may lead to or contribute to heart failure can help prevent the development of the condition. The following pointers can help you understand the preventive measures to avoid or delay heart failure.

1. Consume diet that promotes heart health Prefer eating fruits and vegetables, low-fat dairy products, lean protein such as chicken without the skin, and healthy fats like olive oil, walnuts, avocados and fish like tuna and salmon. Limit saturated fats, trans fats, and cholesterol in your diet. Limit salt (sodium) in your diet as excess salt can cause fluid retention and put strain on your heart. It also elevates your blood pressure. Limiting sugar in your diet can lower your blood sugar level which can prevent or control diabetes. Modern day diets are sometimes not sufficient to fulfill the needs of the body. To augment the health of your heart, take dietary supplements containing conenzyme Q10 (CoQ10), L-carnitine, crataegus (hawthorne), magnesium, and fish oil.
2. Exercise and stay active Exercising can help to improve your general wellbeing and heart function by maintaining a healthy weight, blood pressure, blood cholesterol, and blood sugar levels. Adults should aim at 2 hours and 30 minutes of moderate-intensity exercise like brisk walking or bicycling every week. Children and adolescents should have 1 hour of physical activity every day. One should also avoid sitting for more than 2 hours at a stretch in a day.
3. Lose weight if you’re overweight or obese Lose weight to attain body mass index (BMI) between 18.5 and 24.9. Pay more attention to losing abdominal or belly fat as it can increase the risk of heart disease more than fat on other parts of the body.
4. Do not smoke and if you do, quit smoking at the earliest Consult your doctor for advice on ways to stop smoking. Smoking can damage your arteries that can cause heart failure. Also try to stay away from secondhand smoke.
5. Limit alcohol intake Do not drink too much alcohol, which can raise your blood pressure. Men should consume no more than 2 drinks per day, and women no more than 1 drink per day. And in case you already have heart failure, alcohol can make it worse.
6. Treat another type of heart disease or related condition Other heart problems, like heart attacks, increase the risk of heart failure. Hence, treatment and adherence to prescribed medications for high blood pressure can make a big difference.
7. Manage your stress as it can elevate your blood pressure Mind-body practices such as Tai Chi, yoga, Qi Gong, and meditation can help in managing stress and thereby preventing heart diseases that lead to heart failure.
8. Have good quality sleep Make lifestyle changes to get sound sleep, like going to bed and getting up at the same time every night, and keeping electronics out of the bedroom. Sleep problems like sleep apnea can increase the risk of heart failure. If you suffer from it, get treatment at the earliest.
9. Get your annual flu vaccination The flu shot helps to prevent lung infections which can worsen the symptoms of heart failure.

For patients at risk of developing heart failure, screening for natriuretic peptide biomarkers and early intervention may prevent the condition.

To help you prevent heart disease and lead a healthy life, here are a few tips that every cardiologist wants you to know. Read To Know!

Specialist To Visit

If you experience any symptoms of heart failure, do not take them lightly. It is best to consult a doctor who will evaluate the underlying cause of these problems and also assess the functioning of your heart. In addition to a general physician, specialists who can help to diagnose and treat heart failure include: Cardiologist Cardiac surgeon

We all know that a heart specialist is an expert who specializes in diagnosing, treating and preventing heart-related illness and complications. However, not all cardiologists or heart specialists are the same. Here’s more on the types of heart specialists and who you should consult for various heart problems. Click To Know!

Treatment Of Heart Failure

The risk of heart failure can definitely be lowered by home-based lifestyle modifications like diet and exercise, but once you have been diagnosed with heart failure, it may become necessary to take certain medications or go for surgery.

A. Medications People suffering from heart failure may need multiple medications for their condition. These medications are beneficial in treating and preventing heart failure. Whereas some of the medications help in improving sodium excretion, exercise tolerance, and cardiac function. The medicines that are commonly used in congestive heart failure are:

1. Diuretics: Also known as water pills, these drugs work by removing extra water and certain electrolytes from the body. This increases the amount of urine produced and aids in controlling hypertension and treating heart failure. Examples of drugs that belong to this class include: Furosemide Chlorthalidone Hydrochlorothiazide
2. Angiotensin-converting enzyme (ACE) inhibitors: They work by dilating or widening blood vessels. This makes the blood flow more freely and the heart is able to pump blood more efficiently. Examples include: Captopril Ramipril Enalapril Lisinopril
3. Beta-blockers: Beta-blockers slow down the heart rate and make it easier for the heart to pump blood around the body. This lowers blood pressure and prevents a heart attack. They also widen the blood vessels in the body for better blood flow. Some of the common drugs include: Propranolol Metoprolol Atenolol
4. Aldosterone antagonists: Aldosterone antagonists work by inhibiting the effects of aldosterone, a hormone that causes retention of sodium and water, leading to increased blood volume, and a subsequent increase in blood pressure. These drugs lower blood pressure and reduce fluid around the heart by removing the extra water and electrolytes from the body without loss of potassium. Some of the common examples include: Spironolactone Eplerenone
5. Angiotensin II receptor blockers (ARBs): This class of drugs relaxes blood vessels by blocking the action of Angiotensin, a chemical that narrows the blood vessels. These drugs lower the blood pressure, allowing the blood to flow more freely to different organs and the heart to pump more efficiently. Examples of the common medicines in this category are: Telmisartan Losartan Olmesartan
6. Other drugs: Additionally, other drugs that can be used to treat heart failure include: Sacubitril + valsartan belongs to a class of angiotensin receptor neprilysin inhibitors (ARNI). This combination treats heart failure by relaxing the blood vessels and making it easier for your heart to pump blood throughout your body. In addition, it also helps the body retain less water. Ivabradine reduces the heart rate and lowers the workload on the heart and hence the oxygen requirement. As a result, the pumping action of the heart remains fully efficient. Isosorbide dinitrate + hydralazine is a combination drug. Isosorbide dinitrate relaxes the blood vessels and decreases the oxygen demand of the heart. Hydralazine acts as an antioxidant and lessens tolerance to isosorbide dinitrate, thereby preserving its capacity to relax blood vessels. Together, they improve symptoms of heart failure. Dapagliflozin is a drug commonly used to treat diabetes mellitus but recently this medicine has been found to be effective in patients with heart failure as well. It works by removing excess sugar from the body through urine. It is also known to reduce cardiovascular events and deaths due to heart failure.

B. Surgery Some of the commonly recommended surgical treatment options for people with heart failure are: Angioplasty: Angioplasty is the procedure for opening up the blocked blood vessels that can restrict the blood supply to the heart muscle (a major cause of heart failure). Coronary artery bypass: The procedure of coronary bypass redirects a blood supply around a blocked artery. Valve replacement: A defective or diseased valve can be a major cause of heart failure. In valve replacement, a faulty heart valve is replaced by an artificial mechanical valve. Heart transplantation: A heart transplant is needed if the heart muscle function continues to deteriorate despite treatment. People with end-stage heart failure and those with congenital heart disease require heart transplantation.

C. Devices Based on the cause & severity of your condition your doctor can recommend certain surgical devices to improve your heart condition. Implantable cardiac defibrillator (ICDs): It is a small battery-powered device placed in your chest to detect and stop abnormal heartbeats. This device delivers electrical signals inside the heart to restore a normal heart rhythm. Cardiac resynchronization therapy (Biventricular Pacing): It is a treatment for heart failure in people whose ventricles don’t contract at the same time. Ventricular assist devices (VADs): This is also known as a mechanical circulatory support device, which is an implantable mechanical pump that helps pump blood from the lower chambers of your heart (the ventricles) to the rest of your body. A VAD is used in people who have heart failure or temporarily by patients waiting for a heart transplant or heart recovery from injury. Home-care For Heart Failure

The following simple changes in your lifestyle can be a major contributing factor in alleviating the symptoms of heart failure:

Stay physically active: Supervised moderate exercise is an integral part of a healthy heart regimen. It also helps in maintaining a healthy weight as obesity is a known factor that worsens heart failure. You can consult your doctor on which exercise to do in case you are at risk of heart failure.

Eat a heart-friendly diet: Foods that are good for your heart include green leafy vegetables, fruits, nuts, whole grains & low-fat dairy products. Try to limit the consumption of trans fat, saturated fats, cholesterol, red meat, and sugary foods.

Keep stress at bay: Stress can increase your blood pressure, hence it is important to manage it effectively. For stress-relieving, you can try yoga and meditation or deep breathing exercises.

Find out how yoga can keep your heart healthy. Click Here

Limit the amount of fluid you drink: Do not drink more than 1.5 litres or 6 cups of fluid every day. Fluids include water, juice, soup, tea, coffee, and even some fruits like watermelons. You can also maintain a fluid balance chart to record how much fluids you are drinking.

Weigh yourself daily: Weigh yourself every day to monitor any signs of fluid retention in the body. Note your weight at the same time every day in the morning after using the washroom. Make sure not to eat anything before weighing yourself. Also, try to use the same weighing scale every day. Consult your doctor in case of any sudden increase of 2 kgs in 2 days.

Monitor yourself daily for symptoms of fluid retention: Keep a check on symptoms like increased shortness of breath or swelling in ankles which indicate fluid retention.

Limit your alcohol intake: Drinking excessive alcohol can increase the levels of certain fats known as triglycerides in your blood. These tend to clog the arteries and increase the risk of heart failure. Thus, it is important to keep your alcohol intake moderate.

Quit smoking: Smoking is known to increase heart rate and blood pressure, so it is important to quit smoking in order to improve the symptoms of heart failure.

Explore our smoking cessation range to help you quit smoking. Check Now! Did you know? After a year you quit smoking, your risk of coronary heart disease reduces by 50% as compared to that of a smoker. Moreover, your circulation improves within 2-12 weeks. Here’s more on how quitting smoking can improve your heart health. Read To Know! Complications Of Heart Failure

Some of the common health complications of heart failure include:

1. Arrhythmia or abnormal heart rhythm Abnormal heart rhythm conditions such as atrial fibrillation, ventricular arrhythmias (ventricular tachycardia, ventricular fibrillation), and bradyarrhythmias are quite common in people suffering from heart failure. Atrial fibrillation is present in about one-third (range 10-50%) of patients with chronic heart failure and may represent either a cause or a consequence of heart failure.
2. Heart valve complications The four valves of the heart open and close to keep blood flowing in the right direction. As the heart damage gets worse, the heart has to work harder to pump out blood. This can cause the heart to get enlarged, causing the valves to get damaged.
3. Thromboembolism An irregular heartbeat can cause blood to pool which might lead to the formation of blood clots. These clots can cause a stroke, peripheral embolism, deep venous thrombosis, or pulmonary embolism.
4. Respiratory complications Pulmonary congestion, respiratory muscle weakness, and pulmonary hypertension (rare) are also seen with heart failure.
5. Kidney damage or failure Heart failure can reduce the blood flow to the kidneys. If left untreated, kidneys are not able to remove enough waste from the blood, eventually leading to kidney damage. Kidney damage can further worsen heart failure. As damaged kidneys are not able to remove water from the blood, it leads to an elevation in blood pressure, straining the heart even more.
6. Anemia Kidneys make a protein called erythropoietin, which helps in the synthesis of new red blood cells. Kidney damage from heart failure prevents the body from making enough erythropoietin thereby causing anemia.
7. Liver damage Heart failure reduces blood supply to the liver. Fluid buildup puts too much pressure on the portal vein that brings blood to the liver. This can lead to scarring and liver damage.
8. Weight and muscle loss Heart failure can lead to extreme loss of weight and muscle mass.

Living With Heart Failure

Here are a few ways how people suffering from heart failure can improve their quality of life and lead a healthy life.

Be physically active: There are special heart exercise programs for people with heart failure, with a focus on individually adjusted training to build up their stamina and muscles. These programs can improve physical fitness and overall health.

Keep a watch on your fluid intake and weight: Limit your fluid intake to 1.5 litres or 6 cups of fluid everyday. You can also record or chart the amount of fluid consumption. Also keep a check on your weight everyday to monitor any signs of fluid retention in the body. Note your weight in the morning after using the washroom. Make sure not to eat anything before weighing yourself. Also, try to use the same weighing scale every day. Consult your doctor in case of any sudden increase of 2 kgs in 2 days.

Learn about factors affecting the heart health: Patients need to be educated on the importance of maintaining a healthy body weight, discontinuation of smoking, controlling blood pressure and ensuring normoglycemia. Get in touch with experts as heart failure is a serious disorder that is best managed by an interprofessional team. For example, dietitians can help educate the patient on the importance of a low salt diet and limiting fluid intake. Healthcare professionals can advise the patient on the importance of exercise, avoiding stress, and ensuring follow-up with the cardiologist.

Track and manage your symptoms: Patients with heart failure present with a variety of symptoms, most of which are non-specific. The common symptoms of congestive heart failure include fatigue, dyspnoea, swollen ankles, and exercise intolerance, or symptoms that relate to the underlying cause. So if you experience any symptoms of heart failure or worsening of the symptoms, then do report to your doctor. Also, keep a tab of your symptoms to understand how your condition is faring with time.

Coordinate with your doctor: The way in which heart failure continues to develop over time varies from person to person, depending on things like what is causing it and whether they have other medical conditions. In some people, the symptoms can be kept under control for many years. But sometimes the heart becomes weaker after a short amount of time. Keep in regular touch with your doctor.

Follow a proper medication regimen: It is a good idea to develop a medication regimen together with your doctor, to avoid interactions between different drugs. Non-prescription medications should be included too. For instance, non-prescription painkillers like diclofenac and ibuprofen aren’t suitable for people who have heart failure because they add to the burden on the kidneys.

Get vaccinated: Flu and pneumonia pose a greater danger to people who have heart failure (or any heart condition) than to healthy people. Ask your doctor about getting a yearly influenza (flu) vaccine and a one-time pneumococcal vaccine. Pneumonia is a lung infection that keeps your body from using oxygen as efficiently as it should. Your heart has to work harder to pump oxygenated blood through the body. If you have heart failure, you should avoid putting this extra stress on your heart. Frequently Asked Questions At what age does heart failure occur? Is heart failure more common in men than women? Should I limit my fluid and salt intake? Can I exercise if I have heart failure? How can I stop the need to get up in the night to go to the toilet? How can I improve my breathlessness at night? Can I have sex if I have heart failure? How many glasses of water are recommended in heart failure? Will it not cause dehydration if I drink less fluids? If a child has heart failure will it make the child prone to high blood pressure? References Malik A, Brito D, Chhabra L. Congestive Heart Failure. [Updated 2021 Feb 11]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. What is Heart Failure? The American Heart Association (AHA). InformedHealth.org [Internet]. Cologne, Germany: Institute for Quality and Efficiency in Health Care (IQWiG); 2006-. Heart failure: Overview. 2006 Feb 14 [Updated 2018 Jan 25]. Anter E, Jessup M, Callans DJ. Atrial fibrillation and heart failure: treatment considerations for a dual epidemic. Circulation. 2009 May 12;119(18):2516-25. Devices and Surgical Procedures to Treat Heart Failure. The American Heart Association (AHA). Last Reviewed: May 31, 2017. Gomberg-Maitland M, Baran DA, Fuster V. Treatment of Congestive Heart Failure: Guidelines for the Primary Care Physician and the Heart Failure Specialist. Arch Intern Med. 2001;161(3):342–352. Medications Used to Treat Heart Failure. The American Heart Association (AHA). Last Reviewed: May 31, 2017. Ural D, Çavuşoğlu Y, Eren M, et al. Diagnosis and management of acute heart failure. Anatol J Cardiol. 2015;15(11):860-889. Lifestyle Changes for Heart Failure. The American Heart Association (AHA). Last Reviewed: May 31, 2017. Is drinking alcohol part of a healthy lifestyle? The American Heart Association (AHA). Last Reviewed: May 31, 2017. McMurray JJV, Solomon SD, Inzucchi SE, et al; DAPA-HF Trial Committees and Investigators. Dapagliflozin in Patients with Heart Failure and Reduced Ejection Fraction. N Engl J Med. 2019 Nov 21;381(21):1995-2008.

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Hepatitis A Overview

Hepatitis A is a contagious viral infection that is transmitted through the ingestion of food or water that is contaminated by human waste containing hepatitis A or close personal contact with an infected person.

Hepatitis A is an acute, short-term illness that mainly targets the liver and causes symptoms like nausea, vomiting, fatigue, abdominal pain, poor appetite, fever, joint pain, itching, jaundice, dark yellow urine and grey or clay-colored stools.

Vaccination is key for long-term protection against the virus. Thorough handwashing, practising safe sex, and minimizing close personal contact with infected individuals reduce the risk of transmission of Hepatitis A.

There is no specific treatment for hepatitis A, as most cases resolve independently over 4-6 weeks. Supportive care, such as rest, hydration, and a healthy diet, is recommended. Alcohol and certain medications that can harm the liver should be avoided.

Resolution of Hepatitis A infection results in cure and a life-long immunity to Hepatitis A. One can still get other types of viral hepatitis though. Key Facts Usually seen in Adults Gender affected Both men and women Body part(s) involved Liver Prevalence Worldwide: 1.5 million Mimicking Conditions Alcoholic hepatitis Other Viral hepatitis (B, C, D, E) Autoimmune hepatitis Necessary health tests/imaging Medical history and physical examination Blood tests: IgG, IgM, LFT RT-PCR test Treatment Rest Adequate hydration Proper nutrition Regular monitoring See All Symptoms Of Hepatitis A Hepatitis A is an acute, short-term viral infection that causes liver inflammation and damage.

The symptoms of hepatitis A can vary from mild to severe and usually appear about two to six weeks after exposure to the virus. The majority of adults have symptoms while children seldom show any symptoms. Symptoms of hepatitis A may include the following:

Nausea Vomiting Fatigue Malaise Abdominal pain Poor appetite Fever Itching Joint pain Dark yellow urine Gray or clay-colored stools Jaundice

In mild cases, the infection may last about 4 to 6 weeks with more severe infections lasting about 6 months. Unlike hepatitis B and C, hepatitis A does not cause chronic liver disease. However, very rarely it can cause acute liver failure, which can be fatal. Is Hepatitis A contagious? Yes. An infected person is most contagious (able to spread the virus to others) during the 2 weeks, even before the appearance of any symptoms. One may continue to be contagious for up to 3 weeks after developing symptoms. Causes Of Hepatitis A

The hepatitis A virus (HAV) usually spreads through the oral-fecal route i.e. through direct or indirect contact with an infected person’s stool.

Here are some common ways in which hepatitis A can be spread:

1. Consuming contaminated water or food This virus is usually transmitted by consuming water, liquids or food contaminated with feces that contains the virus. This can occur in some of the following ways:

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 Raw fruit and vegetables that are irrigated with water containing human waste or rinsed with contaminated water Seafood especially crustaceans and shellfish grown in contaminated water

1. Poor hand hygiene If someone infected with hepatitis A doesn’t wash their hands properly after using the bathroom, they can contaminate objects, surfaces, or food they touch. This can spread the virus to others who touch their mouth after touching the contaminated objects.

Optimum hand hygiene lays the foundation for preventing many diseases. Explore our extensive range of hand wash and sanitizers to help achieve it. Buy Now

1. Close personal contact with an infected person Close, personal contact with an infected individual, such as through sexual contact (oral-anal sex), care for someone who is unwell, or sharing needles and drugs with others, can spread Hepatitis A. Infected people who use needles can spread the virus by sharing them or not disposing of them properly.

Hepatitis A is very contagious, and people can spread the infection even before they become ill.

1. Getting tattoos and body piercings from unregulated settings Needlestick or instrument-related exposure to blood is more likely in unregulated settings. To minimize the risk of infection, it is advisable to get tattoos or body piercings done in regulated establishments. Did you know? You cannot get hepatitis A from casual contact like sitting near or touching an infected person. Additionally, a baby cannot get infected with hepatitis A via breast milk. Risk Factors For Hepatitis A Anyone who has not been vaccinated or previously infected can get infected with the hepatitis A virus. The following individuals may be at a higher risk:

International travellers or individuals travelling to or living in regions with high hepatitis A prevalence. Close personal contact or sex with an infected individual Men who have sex with men (MSM) Individuals using illicit drugs Live with or take care on an infected individual Live with or take care for a child recently adopted from a country where hepatitis A is common Kids and teachers working in childcare centers or institutions People experiencing homelessness or unstable housing Individuals with chronic liver disease, including hepatitis B and hepatitis C Those infected with HIV Personnel who work with primates Diagnosis Of Hepatitis A Hepatitis A is typically diagnosed through a combination of medical history, physical examination, and laboratory tests.

Here are some common diagnostic methods used for hepatitis A:

1. Medical history and physical examination Your doctor will ask you about your symptoms, recent travel and activities, and any potential exposure to the hepatitis A virus (HAV). They may also conduct a physical examination to assess your liver and overall health.
2. Blood tests Blood tests are used to detect specific antibodies or viral components associated with hepatitis A. These tests include:
3. Hepatitis A IgM antibody test: The body makes IgM antibodies after the first exposure to hepatitis A. They stay in the blood for about 3 to 6 months. This is a primary test that detects IgM antibodies produced in response to the hepatitis A virus.
4. Hepatitis A IgG antibody test: This test checks for IgG antibodies, which indicate prior infection or vaccination against hepatitis A. It can help determine if you have had a past infection or have received vaccination.
5. Liver function tests: These tests measure the levels of certain enzymes and proteins in the blood that can indicate liver damage or inflammation. Elevated levels of liver enzymes, such as alanine transaminase (ALT) and aspartate transaminase (AST), may suggest hepatitis A infection.
6. Reverse transcriptase polymerase chain reaction (RT-PCR) RT-PCR test This is an additional test to detect the hepatitis A virus RNA and may require specialized laboratory facilities. Unsure of where to go for these tests? We are prepared to assist you. Book lab tests with TATA 1mg Click Here Prevention Of Hepatitis A

To prevent the spread of hepatitis A infection, it is essential to follow these measures:

1. Get Vaccinated The hepatitis A vaccine is highly effective in preventing the infection. It is recommended for Children aged 12 to 23 months Older children who have not received the vaccine Travellers to areas with high hepatitis A prevalence Men who have sex with men Individuals with occupational risk exposure Pregnant women at risk of severe hepatitis A People with clotting factor disorders or chronic liver disease Those who use illegal drugs Homeless or those people

Note: Standard adult dosing recommends the administration of two doses of the vaccine 6 to 12 months apart.

1. Maintain optimum hand hygiene The spread of Hepatitis A 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

It is also important to avoid touching your face, mouth, or eyes with unwashed hands.

1. 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
2. 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 which has the maximum chance of contamination.
3. 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
4. Improve Sanitation at the community level Improving sanitation and sewage systems at a community level can help prevent the contamination of water sources and reduce the transmission of hepatitis A.
5. Practice safe sex Hepatitis A can be transmitted through sexual contact, particularly anal-oral contact. To reduce the risk: Practice safe sex by using barrier methods, such as condoms, during sexual activity. Limit the number of sexual partners and choose partners who have been vaccinated or are known to be free of hepatitis A infection.

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1. Avoid the reuse of needles Sharing contaminated needles is a major risk factor of Hepatitis transmission. This includes needles used for tattoos and body piercings as well. It is advisable to get tattoos or body piercings done by regulated establishments.

How to prevent Hepatitis A if one comes in close contact with an infected person?

1. Get Post-exposure prophylaxis If you have been in close contact with someone who has hepatitis A, your doctor may recommend post-exposure prophylaxis (PEP). PEP involves receiving a vaccine or immune globulin injection to prevent infection or reduce the severity of the illness.
2. Isolate yourself To prevent transmission of the virus to others, it’s advisable to limit contact with others until you are no longer contagious. Follow the recommendations of your doctor regarding isolation duration. Does Hepatitis A vaccine provide protection against other forms of hepatitis? No, the hepatitis A vaccine is specifically designed to protect against the hepatitis A virus and does not offer protection against other types of hepatitis, including hepatitis B or hepatitis C. Each form of hepatitis requires its own specific vaccine, so it is important to receive the appropriate vaccinations for comprehensive protection against all types of hepatitis. Want to know more about the ABC of hepatitis? Click Here Doctor To Visit

A general physician can investigate the causes of liver problems and refer patients for evaluation to the following specialists: Gastroenterologist Hepatologist

Gastroenterologists can diagnose and monitor Hepatitis A infection, assess liver function, and provide appropriate treatment options to manage symptoms and complications associated with the disease.

Hepatologists, who specialize in liver diseases, can offer comprehensive management of Hepatitis A, including the evaluation of liver damage, initiation of antiviral therapies if necessary, and long-term monitoring to ensure optimal liver health and recovery.

Here are some situations in which you should seek medical advice: If you develop symptoms such as fatigue, loss of appetite, abdominal pain, jaundice etc. or if the symptoms get worse. If you have been in close contact with someone who has hepatitis A If you have a doubt that you’ve been exposed to hepatitis A. If you are unsure about your vaccination status or need guidance on getting vaccinated to prevent hepatitis A. If you have underlying liver disease or a weakened immune system

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The treatment for hepatitis A typically focuses on supportive care, as the infection usually resolves on its own without specific medical intervention. The body’s immune system clears the virus over time, usually within a few weeks to months. During this period, supportive care is recommended to relieve symptoms and promote recovery.

Various supportive measures include:

Rest: Getting plenty of rest helps the body recover and conserve energy.

Fluids: Maintaining adequate hydration is important. Drinking water and electrolyte-rich fluids like oral rehydration solutions, coconut water can prevent dehydration, especially if there is vomiting or diarrhea. It is important to avoid alcohol during this time, as it can cause further liver damage.

Nutrition: Consuming a healthy, well- balanced wholesome diet supports liver function and overall recovery. Avoid any packaged, processed and junk food.

Read about the food items that must be included in the diet for a healthy liver Click Here

Take medications with caution: Acetaminophen, paracetamol and medications against vomiting should be avoided. Medications that are metabolized by the liver should be approached cautiously, as the liver’s function may be impaired.

Regular monitoring of liver function: Regular monitoring of liver function through blood tests may be recommended to ensure proper recovery.

Note: Rarely (less than 5% of cases), liver failure can occur from hepatitis A. Immediate hospitalization and referral to a transplant center is critical for cases of HAV-associated fulminant liver failure. Did you know? Resolution of Hepatitis A infection results in cure and a life-long immunity to Hepatitis A. You can still get other types of viral hepatitis though. Home-care For Hepatitis A The following herbal remedies have been traditionally used to improve liver’s health and function. However, it’s important to take your doctor’s consent before initiating any of these herbal remedies for the management of Hepatitis A:

1. Turmeric (Haldi): Turmeric contains a compound called curcumin, which has anti-inflammatory and antioxidant properties. It also aids in the removal of toxins from the body. Turmeric can be cooked with meals, or taken alone, or consumed as turmeric tablets and liquid extract.
2. Hellebore (Kutaki): It is considered a potent liver tonic in Ayurveda. It has a profound cleansing influence on both the liver and promotes liver function. It can be taken in powder, tablet or capsule form.
3. Jamun (Indian blackberry): Jamun possesses antioxidant and anti-inflammatory properties that are helpful in reducing liver inflammation. You can consume jamun as a fruit, fresh juice, powder, capsule or tablet form.

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1. Kalmegh: As per studies, the use of Kalmegh helped cure 80% of people with infectious hepatitis. The patients who took Kalmegh in the form of a decoction experienced a noticeable decrease in liver enzymes.
2. Ginger (Adrak): With its culinary versatility, ginger root is not only a flavorful ingredient but also a medicinal remedy for liver disease. It possesses anti-inflammatory properties, safeguards against cellular damage, and provides potential support for liver health. It can be added while cooking food or consumed in the form of a tablet, capsule.

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1. Triphala: Triphala is a powerful mixture that aids in regulating metabolism and promoting healthy bowel movements and liver function. Triphala churna can be taken before bedtime to enhance overall wellness. It can be consumed as Triphala juice before having food.

Explore our Triphala herb care range Click Here

1. Amla (Indian gooseberry): Amla is rich in antioxidants and is believed to have liver-protective properties. It can be consumed as fresh fruit. It also comes in different forms such as powder, tablet, capsule or candy.

Here is our Amla herbal supplement range Buy Now

1. Green tea: It is loaded with antioxidants and its antiviral effects aid in fighting viral hepatitis.

Explore our wide range of green tea. Fill your cart now

1. Milk thistle (doodh patra): It is A Mediterranean herb that acts as a potent liver cleanser. It aids in regenerating liver cells, minimizing damage, and eliminating toxins processed by the liver from the body. It can be taken in the form of a tablet, capsule or powdered form as recommended by the doctor.

Check out our extensive liver-care range. Fill your cart now Complications Of Hepatitis A

Hepatitis A (HAV) is a viral infection that primarily affects the liver. While most cases of hepatitis A resolve on their own without causing long-term complications, in some instances, it can lead to complications such as:

1. Prolonged Cholestasis Hepatitis A causes liver inflammation, which can disrupt bile flow and lead to disruption of bile flow for an extended period. This buildup of bile in the liver can cause jaundice, dark urine, pale stools, and itching.
2. Relapsing hepatitis The symptoms of Hepatitis A induced liver inflammation such as jaundice can reoccur periodically. However they are not chronic or long term.
3. Autoimmune hepatitis Sometimes, hepatitis A can cause the immune system to mistakenly attack healthy liver cells, leading to autoimmune hepatitis. This condition involves chronic inflammation and can eventually lead to liver damage, scarring, cirrhosis, and liver failure.
4. Acute liver failure Hepatitis A may cause liver failure in rare cases. It is more likely to occur in adults over the age of 50, those who are immunocompromised or have other liver illnesses.
5. Acute renal failure Hepatitis A, although primarily affecting the liver, can cause acute renal failure in rare cases. This condition occurs when the kidneys suddenly lose their ability to filter waste and regulate fluids, potentially leading to toxin buildup and imbalances. Alternative Therapies For Hepatitis A Here are some complementary and alternative therapies that can augment the conventional treatment and support overall well-being during the recovery phase of hepatitis A:
6. Acupuncture: It is a traditional Chinese medicine practice that can provide relief for chronic pain, such as low-back pain, neck pain, and knee pain, which are commonly experienced by individuals with hepatitis A.
7. Meditation: It is a mindfulness practice that can boost overall immunity and faster recovery.
8. Tai chi: It appears to help improve balance and stability. Additionally, tai chi can alleviate back pain and knee pain, common symptoms experienced by those with hepatitis A.
9. Yoga: It is an ancient practice that combines physical postures, breathing exercises, and meditation, can be beneficial for individuals with hepatitis A. Yoga helps relieve stress, supports healthy habits, and improves mental and emotional well-being.
10. Relaxation techniques: Deep breathing exercises help individuals relax, reduce stress, and promote a sense of calmness. Guided imagery also helps create positive mental images to reduce anxiety and induce relaxation. These techniques can be used as self-care strategies to alleviate symptoms and enhance overall well-being in individuals with hepatitis A. Living With Hepatitis A

Hepatitis A viral infection is typically a self-limiting disease that resolves on its own without causing long-term complications, it can still have an impact on a person’s quality of life during the acute phase.

Here are some ways in which hepatitis A can affect the quality of life and strategies to cope with them:

1. Physical symptoms Hepatitis A can cause physical symptoms like fatigue, nausea, abdominal pain, jaundice, loss of appetite, and muscle aches. These symptoms can disrupt daily activities and lower energy levels. Coping strategies include getting enough rest, eating well, staying hydrated, and following your doctor’s recommendations, which may include medications to relieve specific symptoms.
2. Emotional impact Hepatitis A can cause emotional distress, including anxiety and worry about the disease’s impact on personal and professional life. Seeking support from friends, family, or mental health professionals can provide emotional support and help manage anxiety and stress.
3. Social isolation Hepatitis A may cause social isolation due to the need to avoid spreading the infection. While it is necessary to limit close contact with others, you can stay connected through phone calls, video chats, and social media. Communicate your situation to close contacts to maintain social interactions and prevent misunderstandings.
4. Impact on work and school Hepatitis A may necessitate time off from work or school, impacting productivity, finances, and education. Communicate with employers or school administrators, who may provide accommodations or flexible arrangements to manage workload and makeup missed studies. Frequently Asked Questions How soon after exposure to Hepatitis A will symptoms appear? When should a child receive the Hepatitis A Vaccination? How are hepatitis A, B and C different from each other? Are there any side effects of a Hepatitis A vaccine reaction? What should you do if you miss the vaccination? If I Have Had Hepatitis A in the Past, Can I Get It Again? References Iorio N, John S. Hepatitis A. [Updated 2022 Jul 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: Raval, P. R., & Raval, R. M. (2016). Treatment of infective hepatitis: Where biomedicine has no answers, Ayurveda has!!. Ancient science of life, 35(3), 176–179. Available from: Complementary, alternative, or Integrative Health: What’s in a name? [Internet]. U.S. Department of Health and Human Services; [cited 2023 Jul 6]. Available from: Hepatitis A [Internet]. World Health Organization; [cited 2023 Jul 6]. Available from: Hepatitis A - NIDDK [Internet]. U.S. Department of Health and Human Services; [cited 2023 Jul 6]. Available from: Hepatitis A vaccine information statement [Internet]. Centers for Disease Control and Prevention; 2021 [cited 2023 Jul 6]. Available from: Raval PR, Raval RM. Treatment of infective hepatitis: Where biomedicine has no answers, ayurveda has!! [Internet]. U.S. National Library of Medicine; 2016 [cited 2023 Jul 6]. Available from: Murray MT. glycyrrhiza glabra (licorice)Pizzorno JE, Murray MT, editors. [Internet]. U.S. National Library of Medicine; 2020 [cited 2023 Jul 6]. Available from: Sahebkar A. Potential efficacy of ginger as a natural supplement for nonalcoholic fatty liver disease [Internet]. U.S. National Library of Medicine; 2011 [cited 2023 Jul 6]. Available from: Wang Y, Wang R, Wang Y, Peng R, Wu Y, Yuan Y. Ginkgo biloba extract mitigates liver fibrosis and apoptosis by regulating p38 MAPK, NF-ΚB/IκBα, and Bcl-2/Bax Signaling [Internet]. U.S. National Library of Medicine; 2015 [cited 2023 Jul 6]. Available from: VIRAL HEPATITIS, Information for Gay and Bisexual Men [Internet]. [cited 2023 Jul 6]. Available from:

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Hernia Also known as Breach, Fissure, Fracture, Schism, Burst, Cleavage, Cleft, and Crack Overview A hernia occurs when an internal organ or other body part protrudes through the wall of muscle or tissue that normally contains it. Most hernias occur within the cavity in the stomach, between the chest and the hips.

Hernias can be caused due to weakness or strain on the muscles or a combination of both. Generally, hernias can be felt or seen as bulges and don’t cause many symptoms. But, any physical activity that causes strain, can lead to pain, burning, a feeling of pressure, or a pulling sensation. The prevalence of hernias is generally based on the type which is based on the location.

The major risk factors for a hernia include physical strain, weight lifting, obesity, and pregnancy. While, it may not be a life-threatening disorder but hernia can cause severe complications if taken lightly

While surgery is the only option to treat hernias, the symptoms can be managed or prevented by not straining yourself along with certain lifestyle modifications like making sure you are not constipated, taking care of your injuries, and not lifting heavy weights. Key Facts Usually seen in Adults above the age of 60 years. Gender affected Both men and women, but more common in men. Body part(s) involved Stomach Groin Belly button Diaphragm Leg Prevalence India: About 25 out of 100 men and 2 out of 100 women (2016) Mimicking Conditions Lymphadenopathy, Lymphoma Metastatic neoplasm, Hydrocele Epididymitis Testicular torsion Abscess, hematoma Femoral artery aneurysm Undescended testicle Necessary health tests/imaging Imaging techniques: Ultrasound, Computed tomography (CT), and Magnetic resonance imaging (MRI) Treatment Surgery: Laparoscopic surgery, Open procedures, and Reconstructive surgery. See All Types of Hernia

Hernia is the bulging of internal organs and based on the location it can be of different types. Some of the most common types include: Inguinal hernia This type of hernia is seen when fatty tissue or a part of your bowel pokes through the top part of your inner thigh (groin). It is most commonly seen in older men and can occur due to strain on the stomach. Hiatus hernia This occurs when part of the stomach pushes up into your chest through an opening in the thin sheet of muscle that separates the chest from the stomach (diaphragm). It usually just presents as heartburn or acidity and can occur as a result of the diaphragm becoming weak with age or pressure. Femoral hernia These are not very common and occur due to the same reason as inguinal hernia or protrusion of fat tissue into the groin. These are more commonly seen in women as a result of pressure on the stomach. Umbilical hernia This is seen near the belly button when the fat tissue pokes through it. It is commonly seen in babies if the opening in the stomach from where the umbilical cord passes through does not seal properly after birth. Other types These may include the following:

Incisional hernia: This is a very common complication of surgeries where tissue pokes through a surgical wound in the stomach that has not fully healed. Diaphragmatic hernia: It is a type of hiatus hernia where organs from the stomach move into the chest through an opening in the diaphragm. This can also affect babies if their diaphragm does not develop properly in the womb. Epigastric hernia: This is seen as a lump in the midline between your belly button and breastbone which can cause pain. Muscle hernia: This type of hernia occurs as a result of a sports injury where part of a muscle pokes through the stomach or leg. Spigelian hernia: It occurs when part of your bowel pokes the stomach at the side, below your belly button.

Listen to our expert to learn more about hernia.

Symptoms Of Hernia

A hernia in the stomach or groin can produce a noticeable lump or bulge that can be pushed back in and laughing, crying, coughing, straining during a bowel movement, or physical activity may make the lump reappear. Hernia, in most cases, is felt or seen as bulges and do not cause symptoms. However, it can lead to pain, burning, a feeling of pressure, or a pulling sensation, especially during physical strain.

Some other hernia symptoms include: Swelling or bulge in the groin or the scrotum Pain at the site of the bulge that increases while lifting Dull aching pain around the bulge Increase in the bulge size over time Bloating Bowel obstruction

In case of hiatus hernia, there may not be bulges on the outside of the body, instead, the symptoms may include: Chest pain Indigestion Difficulty in swallowing Frequent ringing food back up in the mouth Heartburn

Suffering from heartburn? Understand what medications to take to tackle this problem. Click To Know More Causes Of Hernia

Hernia can develop quickly or over a period of time by a combination of muscle weakness and strain. Research shows that there are numerous risk factors that can cause a hernia. Risk Factors For Hernia

There are a lot of risk factors that can increase your chances of developing a hernia. They include: Congenital conditions Birth defects in which there is a hole in the diaphragm can increase the risk of the peaking of the bowel, stomach, or even the liver can move into the chest cavity. This gap can form in the womb during the development of the fetus. Family history of hernias Studies suggests that patients with a family history have their primary hernias as well as their recurrence at a younger age than patients without a family history. Age Inguinal hernia is more frequent in individuals of older age than young adults because of loss of strength of the stomach wall and conditions which increase the pressure on the stomach. Sex Men are much more likely to get inguinal hernias than women, because of the location of the inguinal canal. Abdominal wall and umbilical hernias are also more common in pregnant women. Pregnancy The intra-abdominal pressure is usually high in pregnancy, increasing the chances of herniation or its recurrence. The incidence of umbilical hernia among pregnancies accounts for 0.08%.

Know the top 5 tips that every pregnant woman should be aware of. Click Here

Injury or surgery Incisional hernias happen when the surgical cut in the stomach wall doesn’t close properly after surgery.

Lifting weights Strenuous sports and physical activity, particularly weight-lifting, can lead to an inguinal hernia due to excessive strain on the muscles.

Note: Strenuous sports can also cause a condition known as sports hernia, which has similar symptoms but is not actually a hernia. Premature birth or a low birth weight Infants who are born prematurely are at an increased risk of having an inguinal hernia. Also, those with very low birth weight have a 3 times greater risk of requiring an emergency procedure than heavier infants. Chronic cough Repetitive cough over a long period of time increases the pressure and strain on the stomach walls leading to a hernia. Constipation It can increase straining during bowel movements leading to the emergence of abdominal hernia.

Learn the reason behind constipation and how to manage it. Ascites This is a condition in which there is fluid buildup in the stomach. Studies show that ascites can be a major etiologic factor as umbilical hernias occur almost exclusively in patients with persistent ascites who undergo surgery for liver cirrhosis. Obesity It adds to the risk of developing recurrent hernias as being obese or overweight increases the strain and pressure on the muscles of the stomach and makes them weaker and more prone to developing hernias.

Read more about 5 common causes of obesity that you should know. Tap Here

Lung diseases The risk factor for hernias also includes chronic lung infections, collagen disorders, and cystic fibrosis. For a diaphragmatic hernia, weakness of the diaphragmatic muscles can be the cause. Smoking Smoking weakens the connective tissue. Studies have shown that smoking is a known risk factor for the development of a hernia and it can also increase the risk of recurrence.

Want to quit smoking? Try our extensive range of smoking cessation products that can help you get rid of this deadly habit. Add To Your Cart Now Diagnosis Of Hernia

Diagnosing hernia can be easy and mainly consists of a physical examination in which your doctor will first take a look while you are standing, by asking you to tense your stomach muscles and cough. Then you may be asked to lie down and the doctor will feel how big the hernia sac is and see whether it can be pushed back into the abdomen. A stethoscope can aid to assess bowel sounds in the hernia sac. Other to diagnose a hernia may include: Imaging techniques A more definitive diagnosis of a hidden hernia requires imaging as part of the workup to confirm the clinical suspicion and this may include:

Ultrasound: Groin pain from a hidden hernia can be a difficult clinical diagnosis, however, studies demonstrate that it is easier to detect by ultrasound. Computed tomography (CT): Pelvic CT scan may be helpful in the diagnosis of inguinal hernia. Magnetic resonance imaging (MRI): MRI has been shown to have a sensitivity of up to 94.5% in diagnosing inguinal hernias.

Book your tests now. Click Here

Celebs affected Amitabh Bacchan Megastar Amitabh Bachchan developed multiple hernia in his lower abdomen which caused him severe pain. He tweeted “So the doctors have been after me for surgery, well two actually on either side of the abdomen and I have been avoiding it because of my busy schedule. But I shall have to take care of it now.” Dwayne Johnson Also known as “The Rock”, during the shooting of a movie he injured himself and the painful accident tore his abdomen wall, for which he had to undergo emergency hernia surgery. Specialist To Visit

Hernias occur in different body parts, and each type requires a different specialist to diagnose and treat different types of hernias. Some of the doctors that you can consult include: General physician Urologist Gastroenterologist General surgeon

A urologist is a doctor who specializes in the study or treatment of the function and disorders of the urinary system. A gastroenterologist is a medical practitioner qualified to diagnose and treat disorders of the stomach and intestines.

When to see a doctor? You should see a doctor immediately if you have a hernia and you develop any of the following symptoms: Sudden and severe pain Difficulty pooping or farting Nausea and vomiting The bump turns red, purple, or darker Hernia becomes firm or tender, or cannot be pushed back in.

If you notice any of these symptoms, don’t hesitate and seek advice from our trusted team of doctors. Consult Now

Prevention Of Hernia

Preventing a hernia can be tricky, here are a few things to keep in mind that can reduce the pressure on your abdomen, thus preventing your chances of landing up with a hernia:

Maintain an ideal body weight Being overweight can put stress and pressure on your stomach with the extra fat. Shedding some extra kilos will help to greatly reduce your risk of developing a hernia. Add fiber to your diet Fiber-rich, low-acidic foods like apples, pears, carrots, sweet potatoes, and leafy greens are good dietary choices when you have a hernia as they help you prevent constipation, thus preventing hernia.

Read more about 5 foods that are loaded with fiber and can also help you lose weight. Learn More

Do not lift heavy objects Be careful and use the correct form when lifting weights or heavy objects. Don’t over-exert yourself. Take care of your wounds Avoid any activities that put pressure on your wounds, and always use any gel to promote wound healing. Also, limit sexual activity until your wound has healed completely. Note: Do not get pregnant within six months of any surgery as it can lead to an umbilical hernia. Treat your cough Heavy coughing puts stress on your stomach, which may cause a hernia. Call your doctor if your cough doesn’t go away after a few weeks.

Check out our range of cold and cough products that can help you relieve the symptoms. Browse Now

Say no to smoking Smoking is a known risk factor and can also lead to persistent cough, increasing your chances of developing a hernia.

Learn about 5 ways your body reacts when you stop smoking. Read Now

Treatment Of Hernia

Hernia repairs are very common, while surgery is the only treatment that can repair hernias, watchful waiting is also an option for people who do not have complications or symptoms with their hernias. Surgical options include: Mesh for hernia repair Surgical mesh is a medical device that is used to provide additional support to weakened or damaged tissue. Mesh is often used to help strengthen the hernia and reduce the risk of recurrence. Laparoscopic surgery Laparoscopy is a type of surgical procedure that allows a surgeon to access the inside of the stomach and pelvis without having to make large incisions in the skin. This is a minimally invasive procedure that uses multiple small incisions no more than 1 centimeter in length to access the hernia. A mesh may or may not be required to do the repair Open procedures This is a type of surgery that uses a single incision to open the abdomen and access the hernia, after which the hernia is repaired using mesh. Open procedures are ideally suited for patients with large or multiple hernias. The open repair can be done with or without surgical mesh. Reconstructive surgery Abdominal wall reconstruction repairs defects in the walls of the stomach while reducing tension and providing structural support.

Note: Your doctor may give you medications for the pain and in most cases, the pain will lessen during the first week so that drugs are no longer needed.

Read more about types of painkillers and when they should be taken. Click Here

Home care For Hernia

If you are diagnosed with a hernia, you can try these home remedies that can help you manage the symptoms:

Castor oil (Arandi ka tel): This oil helps to inhibit inflammation inside the stomach and promote proper digestion.

Aloe vera juice: Aloe vera has anti-inflammatory properties with soothing effects and consuming the juice before meals can be beneficial for easing out some of the symptoms of hernia.

Ginger (Adrak): Studies suggest that ginger can be useful in treating various gastric ailments like constipation, bloating, indigestion, nausea, and vomiting.

Black pepper (kali mirch): Black pepper is more than just an added flavor. It stimulates healing and can also suppress acid reflux which can help to cure the swollen region of a hernia.

Buttermilk (Chhachh): It is loaded with good bacteria and is considered a safe option for people with hiatal hernia as it can reduce acids in the stomach.

Want to know the amazing health benefits of buttermilk? Read This

Turmeric (Haldi): It contains an active ingredient called curcumin and is believed to make the muscles stiffer, that may prevent the formation of hernia. Complications Of Hernia

If the contents of the hernia get entrapped in the weak point in the stomach wall, the contents can block the bowel, leading to the following complications: Severe or sudden Nausea, and vomiting Peritonitis (inflammation of the tissue that covers the lining of the stomach) Intestinal strangulation (if the trapped section of the intestines does not get enough blood). Did you know? The impact of the COVID-19 pandemic led to a marked reduction in the number of elective hernia repairs, which led to complications due to the delay in the treatment. Read More On COVID-19 Alternative Therapies For Hernia

The only treatment for a hernia is surgery, but there are certain alternative therapies that have shown promising results to alleviate the symptoms of hernia. They include: Yoga Studies show that yoga therapy with selected asanas is effective in the treatment of reversible inguinal hernias. It is important that you choose the right yoga poses to relieve the pressure on your stomach, strengthen the muscles of the stomach and close up the inguinal canal.

Know the 6 benefits of Yoga that even doctors swear by. Read Now

Acupuncture This has been shown to be an effective treatment for several health issues, including hiatal hernia. Studies demonstrate that anesthesia through acupuncture is a feasible anesthetic option as it reduces the amount of local anesthetic required, thus decreasing the complications. It is effective in pain relief and inhibiting gastrointestinal upset leading to a rapid postoperative recovery, which is usually complication free. Traditional Chinese medicine (TMC) Traditional Chinese medicine is effectively treating hernia as it uses herbs that clear away heat and toxic materials, promote qi circulation to relieve pain, diminish swelling and remove stasis, and has a good curative effect. Living With Hernia

Large, clearly visible hernias are very unpleasant and can be quite distressing, while a hernia cannot heal itself, it can almost always be treated effectively with surgery. But, the good news is that most hernias can be repaired with minimally invasive surgery which has a low complication rate and most patients are able to get back to their normal routine quickly. Certain tips to keep in mind if you have been diagnosed with a hernia: Be active, the right way Being physically active in certain ways has been shown to help prevent hernias, but other types of exercise can put too much pressure on your abdomen. Beneficial exercises may include:

Cycling: Light cycling may be considered safe for people with smaller hernias and may also strengthen your muscles. Walking: Walking is one of the most beneficial and simple exercises to perform and comes with many health benefits. Swimming: Swimming can relieve a lot of pressure, strain, and pain.

Note: Any type of exercise that involves very high levels of exertion can also increase your hernia risk. Speak with your doctor and find out whether these exercises are appropriate for you.

Read about 5 amazing health benefits of swimming. Click Now Eat fiber-rich foods and in smaller quantities Incorporating high-fiber foods into your diet can prevent constipation and strain during bowel movements. Also, smaller meals can be effective for decreasing the symptoms associated with hernias based on the fact that the less pressure you put on your stomach internally, the easier it is for you to digest your food. Foods that may help in this area include: Fruits Vegetables Whole grains Nuts and seeds Dried beans and peas

Note: Laxatives, like mineral oil, milk of magnesia (magnesium hydroxide), or MiraLAX (polyethylene glycol) can also help with constipation.

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Stay hydrated It is important to maintain optimum hydration if you have a hiatal hernia. Drinking water outside meal times can help in diluting the digestive juices and aid in proper digestion, preventing constipation. Avoid heavy lifting If you have to lift a heavy object, bend down with your knees instead of your waist. Make your legs rather than your torso do most of the lifting effort. And if an object is too heavy for you to lift comfortably, know your limits and don’t do it. Use ice packs An ice pack on the hernia will act as a quick inflammation reliever when your hernia is causing too much discomfort. Always cover the ice with a soft cloth and do not leave it on for long periods. Check if your prostate is enlarged An enlarged prostate can increase pressure on the stomach by causing strain during urination. Most men develop an enlarged prostate as they age. Avoid straining during bowel movements or while urinating to decrease your chances of a hernia.

Enlargement of the prostate gland can be diagnosed by prostate-specific antigen. To know if you have this condition, Book Your Test Now

Frequently Asked Questions Is it always necessary to get surgery for hernia repair? What are the risks of hernia repair surgery? When is a mesh required for a hernia repair? Will I have pain after surgery? Can I exercise before and after a hernia repair? References Types of Hernia. Hernia. National Health Services UK. Jun 2019. InformedHealth.org [Internet]. Cologne, Germany: Institute for Quality and Efficiency in Health Care (IQWiG); 2006-. Hernias: Overview. 2016 Sep 21 [Updated 2020 Jan 30]. de Goede B, Verhelst J, van Kempen BJ, et al. Very low birth weight is an independent risk factor for emergency surgery in premature infants with inguinal hernia. J Am Coll Surg. 2015;220(3):347-352. Jansen, P.L., Klinge, U., Jansen, M. et al. Risk factors for early recurrence after inguinal hernia repair. BMC Surg 9, 18 (2009). Coelho JC, Claus CM, Campos AC, Costa MA, Blum C. Umbilical hernia in patients with liver cirrhosis: A surgical challenge. World J Gastrointest Surg. 2016 Jul 27;8(7):476-82. DeLancey JO, Blay E Jr, Hewitt DB, Engelhardt K, Bilimoria KY, Holl JL, Odell DD, Yang AD, Stulberg JJ. The effect of smoking on 30-day outcomes in elective hernia repair. Am J Surg. 2018 Sep;216(3):471-474. Kulacoglu, H. (2018). Umbilical Hernia Repair and Pregnancy: Before, during, after…. Frontiers in Surgery. Miller J, Cho J, et al. Role of Imaging in the Diagnosis of Occult Hernias. JAMA Surg. 2014;149(10):1077-1080. Bradley M, Morgan D, Pentlow B, Roe A. The groin hernia - an ultrasound diagnosis? Ann R Coll Surg Engl. 2003 May;85(3):178-80. Halpenny D, Barrett R, O’Callaghan K, Eltayeb O, Torreggiani WC. The MRI findings of a de Garengeot hernia. Br J Radiol. 2012 Mar;85(1011):e59-61. What is Hernia? Hernia Surgical Mesh Implants. US Food And Drug Administration. Apr 2018. Hernia Treatment Options. Comprehensive Hernia Center. Hopkins Medicine. Haniadka R, Saldanha E, Sunita V, Palatty PL, Fayad R, Baliga MS. A review of the gastroprotective effects of ginger (Zingiber officinale Roscoe). Food Funct. 2013;4(6):845-855. Alagesan J, Venkatachalam S, Ramadass A, Mani SB. Effect of yoga therapy in reversible inguinal hernia: A quasi-experimental study. Int J Yoga. 2012;5(1):16-20. Chu DW, Lee DT, Chan TT, Chow TL, Que MB, Kwok SP. Acupuncture anaesthesia in inguinal hernia repair. ANZ J Surg. 2003;73(3):125-127. Hammoud M, Gerken J. Inguinal Hernia. [Updated 2022 Jun 7]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-.

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Herpes Simplex Virus Infections Also known as Herpes, Herpes simplex, Oral herpes (Cold sores, fever blisters, Herpes labialis, Herpes gingivostomatitis) & Genital herpes (Herpes genitalis) Overview Herpes simplex virus infections, commonly known as herpes, is a viral infection caused by the herpes simplex virus (HSV). The term herpes is derived from the Greek word “to creep or crawl” in reference to the spreading nature of herpetic skin lesions in the form of small, painful blisters which usually turn into open sores. It affects a majority of the population one or more times during their lifetime but most people have asymptomatic herpes infection and only some develop symptoms.

There are two main types of HSV – HSV type 1 (HSV-1) and HSV type 2 (HSV-2). HSV-1 usually causes oral herpes which mainly affects the mouth and the surrounding areas whereas HSV-2 mostly causes genital herpes which mainly affects the genitals.

The virus can spread by close contact, sexual intercouse as well as from mother to baby during birth is the mother is infected. It is seen that women are known to be at a higher risk of suffering from HSV infections as compared to men.

Diagnosis of HSV infection is usually made by examination of skin blisters. Detection of Herpes simplex virus antibodies can also aid in diagnosis. Most herpetic infections resolve themselves without any treatment. Treatment, if required, typically consists of antivirals that can help in the management of herpes flare ups and prevent recurrence of the infection. Key Facts Usually seen in All age groups Gender affected Both men and women but more common in women Body part(s) involved Skin Mouth Genitals Prevalence Worldwide (HSV-1 infection): 3.7 billion (2020) Worldwide (HSV2 infection): 491 million (2020) Mimicking Conditions Syphilis Chancroid Lymphogranuloma venereum Granuloma inguinale Crohn disease Behcet syndrome Fixed drug eruptions Psoriasis Sexual trauma Necessary health tests/imaging Herpes Simplex Virus 1 & 2, IgM Herpes Simplex Virus 1 & 2, IgG Treatment Acyclovir Ganciclovir Famciclovir Valacyclovir See All Causes Of Herpes Simplex Virus Infections

Herpes simplex virus (HSV) infections are common viral infections caused by the Herpes simplex virus. While most people have asymptomatic HSV, which means you do not show any signs or symptoms, when infected, some may experience sporadic episodes of small, fluid-filled blisters or sores.

HSV can spread through close contact with the infected person. Ideally, the herpes simplex virus is transmitted when a person touches the sore. However, even a person who doesn’t have any sores can spread the virus. This is seen in most cases and the condition is known as asymptomatic viral shedding.

Once infected, the virus enters the cells and begins its replication. The virus also travels to the nerve cells where it stays in an inactive (dormant) state. This means that although the virus is present in the body, it neither replicates nor shows any symptoms. However, the virus can be suddenly activated at a later stage causing recurrence of the infection. These recurrences are often triggered by : Stress or anxiety Any infection, injury or febrile illness Hormonal changes such as during menstruation Exposure to extreme cold or hot conditions Types Of Herpes Simplex Virus Infections

Herpes simplex is caused by either of the two types of herpes simplex virus (HSV), members of the herpesvirales family of double-stranded DNA viruses, such as:

1. HSV-1 HSV-1 majorly causes oral herpes also known as cold sores or fever blisters. It is a highly contagious infection occurring in and around the mouth. It is a very common infection and is usually acquired during childhood. Transmission is by oral-to-oral contact through saliva, which means it can spread through kissing or sharing objects such as toothbrushes, lipsticks or utensils.

However, it is also possible for HSV-1 to be transmitted through oral-genital contact causing infection in or around the genital area (genital herpes).

1. HSV-2 This type of HSV is mostly sexually transmitted through contact with genital surfaces, skin, sores or fluids of someone infected with the virus. It causes genital herpes or herpes genitalis which involves the genital or anal area. Risk Factors Of Herpes Simplex Virus Infections

The following risk factors increase the susceptibility to herpes virus simplex infections:

Gender: It is seen that women are more prone to HSV infection as compared to men.

Close contact with an infected person: The virus can spread through prolonged skin-to-skin contact, kissing as well as sharing items such as brushes, cups, or towels.

Multiple sexual partners: Having multiple sexual partners can increase the risk of herpes infection as there are increased chances of coming in contact with a person who already has herpes or is an asymptomatic carrier.

Unprotected sexual contact: HSV-2 is mostly sexually transmitted through vaginal, anal or oral sex. People who don’t use safety measures like condoms or dental dams are at a higher risk of contracting herpes.

Low immunity: People who have low immunity or suffer from immunocompromised conditions such as human immunodeficiency virus (HIV) infection, autoimmune diseases, cancer, or immunoglobulin A (Ig A) deficiency are at a high risk. Also, if you are on immunosuppressive drugs such as chemotherapy or steroids or underwent organ transplant the risk is higher. Did you know? Herpes infections are most contagious when symptoms are present but can still be transmitted to others in the absence of symptoms. People who already have HSV-1 infection are not at risk of getting it again, but they are still at risk of acquiring herpes simplex virus type 2 (HSV-2) genital infection. Consult your doctor to know more. Consult Now! Symptoms Of Herpes Simplex Virus Infections

Herpes simplex virus infection is asymptomatic most of the time, however, in some cases the following signs and symptoms may be noticed.

1. Burning, itching, or tingling: If you have herpes, your skin may itch or burn for a few days before the appearance of blisters.
2. Sores: Painful fluid-filled blisters or sores may appear. These sores usually appear 2-20 days after a person has come in close contact with an infected person. They may form a crust prior to healing. The location of sores differ according to the type of HSV infection: In the case of oral herpes (HSV-1) blisters usually appear on and around the lips (herpes labialis). Oral infection involves the inside of cheeks, tongue, gums and roof of the mouth (herpetic gingivostomatitis). Genital herpes (HSV-2) sores mostly appear on genital organs like the vagina, vulva, labia and cervix in women and penis and testicles in man. In some cases, buttocks, anal region and inner thighs are also involved.
3. Flu-like symptoms: You may observe typical flu-like symptoms such as fever, sore throat, swollen lymph nodes in the neck (oral herpes) or groin (genital herpes), and muscle aches.
4. Urinary problems: People, mostly women, suffering from genital herpes may feel a burning sensation while urinating or trouble urinating.
5. Herpes keratitis: Sometimes the herpes simplex virus may spread to one or both eyes, where you may feel sensitivity to light, discharge from the eyes, pain, and a gritty feeling in the eye.

Note: Herpes can occur in other areas such as fingers (known as herpetic whitlow) and brain (known as herpes encephalitis). Diagnosis Of Herpes Simplex Virus Infections

During an outbreak, a doctor or clinician can diagnose HSV infections by examining the sores or blisters. They might also ask about other symptoms, including flu-like symptoms and early signs, like tingling or burning.

To confirm the diagnosis, a swab or fluid sample may be taken from the sores or blisters and sent to a laboratory for culture or PCR testing.

When sores have healed or are not present, blood tests to check for HSV-1 and HSV-2 antibodies, a marker to show if one has been exposed to the virus, are recommended. These include: Herpes simplex virus 1 & 2, IgM Herpes simplex virus 1 & 2, IgG

While the blood test doesn’t show an active infection especially in the absence of open sores or lesions, it informs about exposure to herpes virus in the past. In case of first infection, the test will most likely be negative as there wouldn’t have been enough time for the body to develop antibodies. In such cases, the HSV-1and HSV-2 antibody test may be repeated in eight to 12 weeks. Prevention Of Herpes Simplex Virus Infections

To prevent contracting or spreading of HSV-1 infection or oral herpes: Do not share your personal items such as towels & brushes with anyone. Avoid sharing your drinks. Do not let anyone come in close contact with you or touch your sore in case of an active infection. Avoid triggers such as stress, sunlight, extreme cold weather, which can lead to recurrence of the infection.

To prevent contracting and spreading HSV-2 infection or genital herpes: Practice safe sex. The consistent and correct use of barrier contraceptives like condoms can reduce the risk of an infection even if your partner is asymptomatic. Condoms can also protect from other sexually transmitted diseases. Use of condoms or dental dam while giving or receving oral sex is also equally important. Avoid intercourse as soon as either partner suspects or is diagnosed with HSV infection. Get an antibody test to know if you have herpes or any other sexually transmitted disease, which you may transmit to your partner. Take antiviral medication as advised by your doctor. This reduces the chances of other people contracting the disease. Did you know? Unlike other common forms of contraception like oral contraceptive pills or coitus interruptus (withdrawal or pull-out method), condoms offer protection against sexually transmitted diseases (STDs). According to the Centre for Disease Control and Prevention (CDC), consistent and correct use of a condom can reduce the risk of STDs such as chlamydia, gonorrhea, trichomoniasis, etc and human immunodeficiency virus (HIV) transmission. Click To Know More! Specialist To Visit

You should visit your doctor if you have: Small blisters that turn into red sores upon bursting around your mouth, genital, anal or thigh region. Itching, tingling, or burning around your genitals Burning sensation while urinating Unusual discharge from the vagina or penis

You can consult specialists such as: General physician Dermatologist Infectious disease specialist Gynecologist

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Treatment Of Herpes Simplex Virus Infections

Once you have the herpes virus, it stays in your body for the rest of your life. Herpes sores usually improve on their own in a week or two without medical treatment. But in case of severe or frequent outbreaks, a doctor can prescribe antiviral medications for the suppression of infection, manage the symptoms and prevent its recurrence. Your doctor might recommend an antiviral cream or ointment to relieve the symptoms such as burning, itching, or tingling. In some cases, antiviral oral medicines or injections are also given.

Some of the antiviral medicine used to treat both HSV-1 and HSV-2 infection are: Acyclovir Ganciclovir Famciclovir Valacyclovir

Click here to know more about the medicines for herpes simplex virus infections. Click Now!

Home-care For Herpes Simplex Virus Infections

There are few things you can do at home to help manage herpes sores.

1. To relieve pain and discomfort For painful blisters and sores, you can apply medicine such as benzocaine and L-lysine. You can also put ice on the blisters to reduce pain and itching. Keep away from triggers such as stress and getting a sunburn to prevent future outbreaks.
2. To prevent the spread of HSV infection Prevent the spread of this virus to other parts of your body by: Washing your hands after touching a blister or open sores Not applying ointment with your fingertips to the open sores but making use of a cotton tip applicator.
3. To prevent the spread to an uninfected person If you have sores or symptoms of herpes simplex virus avoid having sex with your partner People with active symptoms of oral herpes should avoid oral contact with others and sharing objects that have contact with saliva such as utensils. Even if you do not have any symptoms, you must use a latex condom to lower the risk of spreading the virus. If you are pregnant and your partner has herpes, you must inform your doctor. You may need to take medicine towards the end of your pregnancy in order to prevent passing the virus to your newborn. Complications Of Herpes Simplex Virus Infections
4. Finger or thumb infection Also known as herpetic whitlow, in this infection your finger or thumb may become red or swollen before the appearance of blisters. This is usually accompanied by burning pain.
5. Esophagus infection Herpes esophagitis is a viral infection of the esophagus that may be very painful and interfere with swallowing. It is usually seen in immunocompromised patients, post chemotherapy & HIV patients.
6. Eye infection Herpes if left untreated may cause herpes keratitis. It leads to redness in one or both eyes, swollen eyelids, conjunctivitis with opacity and superficial ulceration of the cornea, pain in the periorbital region or impaired vision.
7. Other sexually transmitted infections Genital herpes can increase the risk of transmitting or contracting other sexually transmitted infections including HIV.
8. Bladder complications In some cases, genital herpes can cause inflammation of the urethra which is the tube that carries urine from the bladder to outside. The swelling can close the urethra for many days requiring the insertion of a catheter to drain the bladder.
9. Rectal inflammation (proctitis) Genital herpes can also lead to inflammation of the lining of the rectum.
10. Nervous system involvement Cranial or facial nerves can get infected by HSV, resulting in temporary paralysis of the affected muscles. Rarely, in Maurice syndrome, neuralgic pain may precede each recurrence of herpes by 1 or 2 days. On rare occasions, if herpes is left untreated it can lead to meningitis or encephalitis which is the inflammation of the membranes and cerebrospinal fluid surrounding the brain and spinal cord.
11. Eczema herpeticum In patients with a history of atopic dermatitis or Darier disease, herpes simplex may result in a widespread disease called eczema herpeticum. Numerous blisters can erupt on the face or body along with swollen lymph glands and fever.
12. Erythema multiforme A single or recurrent episodes of erythema multiforme can occur rarely with HSV infection. The rash of erythema multiforme presents as symmetrical plaques on hands, arms, feet and legs. It is marked by target lesions which sometimes have central sores. Did you know? Neonatal herpes simplex, though rare, can occur when an infant is exposed to HSV (HSV-1 or HSV-2) in the genital tract during delivery. It is a life threatening condition which may result in brain damage and blindness in the newborn. To know more, consult a doctor. Click To Consult Now! Alternative Therapies For Herpes Simplex Infections

Some home remedies might help in alleviating the symptoms associated with sores and blisters. Do consult your doctor before trying any of them.

1. Tea tree oil Tea tree oil is a great remedy for plenty of health issues. To heal the herpes sores outbreak, the oil must be diluted with a carrier oil before using it on a cold sore or genital herpes.
2. Aloe vera Aloe vera has wound-accelerating and soothing properties. Aloe vera gel extracted from the plant can be directly applied to the body without being diluted. It is helpful in getting rid of itching and redness caused by sores.
3. Echinacea Echinacea is a medicinal plant having anti-viral properties. It is known for enhancing the immune system and easing the symptoms of this viral infection. All parts of the Echinacea plant, namely flowers, leaves, and roots can be used for healing herpes.
4. Lemon balm Lemon balm is one of the most effective herbal remedies that may cure and reduce the risk of transmission of herpes. It has flavonoids, phenolic acid, and rosmarinic acid, which helps in healing the sores or blisters.
5. Baking soda Baking soda is an effective treatment for getting rid of herpes fast. It provides relief from the itchy and painful sores.
6. Epsom salt Bathing in epsom salt water is a great remedy for soothing the itching and pain in herpes. This remedy makes the sores dry, thereby reducing itching.
7. Oregano oil Oregano oil has anti-viral properties that can help alleviate the symptoms of the herpes simplex virus and help in the speedy recovery of herpes blisters.
8. Ice pack The simplest method to get some relief from herpetic lesions, specifically for genital herpes is application of ice. However, it should be kept in mind that long exposure to ice on the genital parts can damage the tissues. Living With Herpes Simplex Infections

Herpes can be managed well with medications and other preventive measures. It usually doesn’t cause any serious troubles in healthy adults. However, there are a few things that should be kept in mind if you or your partner are living with herpes infection. If you or your partner have an active herpes infection do not indulge in any form of sexual activity. It is advised to use condoms while having sexual intercourse. However remember, condoms only protect against genital exposure to the virus, however they fail to protect against skin-to-skin contact with open sores. In case of genital herpes avoid touching the affected areas during an outbreak, and wash your hands frequently to avoid transferring the infection to other parts of the body. Herpes, like other sexually transmitted diseases, comes with some social stigma and can also have an impact on sexual relationships. If you’re feeling distressed about your condition, it is advised to talk with your doctor, therapist, or counselor.

Frequently Asked Questions Am I at a high risk of getting herpes? Can herpes be cured? How long do herpes sores last? Can I conceive if I have herpes? How to reduce herpes flare-ups? References Herpes stomatitis. MedGen. NCBI. Herpes simplex: Signs and symptoms. American Academy of Dermatology Association. (AAD). InformedHealth.org [Internet]. Cologne, Germany: Institute for Quality and Efficiency in Health Care (IQWiG); 2006-. Genital herpes: Overview. 2018 Jun 27. Mathew Jr J, Sapra A. Herpes Simplex Type 2. [Updated 2021 Feb 23]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan-. Herpes simplex: Tips for managing. American Academy of Dermatology Association. (AAD). Key facts. Herpes Simplex Virus. World Health Organization (WHO). Last updated on 1 May 2020. Herpes. Centers for Disease Prevention and Control (CDC). Last updated in Jan 2021.

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Indigestion Also known as Dyspepsia, Abdominal Discomfort, Stomach Upset Overview A sensation of pain or discomfort in the upper abdominal region accompanied by a feeling of fullness, bloating, and flatulence is known as indigestion or dyspepsia. Some of the common causes of indigestion include sedentary lifestyle, eating habits, certain medications, and some gastrointestinal illnesses like GERD.

In most cases, indigestion can be controlled by making simple lifestyle changes such as taking a physical activity, balanced healthy diet and consuming alcohol and carbonated beverages in moderation. If lifestyle measures fail to improve the condition, then the use of over-the-counter (OTC) medications like antacids are suggested to improve indigestion. Prescription drugs like prokinetics and antibiotics may also be advised to treat the underlying cause of indigestion.

If indigestion becomes a chronic problem and/or is accompanied by other symptoms such as diarrhea, vomiting, blood in the stools, severe abdominal pain, or chest pain, it is essential to seek prompt medical care. Key Facts Usually seen in Adults above 25 years of age Gender affected Both men and women but more common in women Body part(s) involved Stomach Large intestine Small intestine Oesophagus Prevalence Worldwide: 10 - 30% (2018)

Mimicking Conditions Esophagitis Gastritis GERD Esophageal Spasm Gastrointestinal Malignancy Necessary health tests/imaging X-Ray Abdomen USG Abdomen Dual Phase CT Abdomen Barium Meal Follow Through Barium Swallow Complete Hemogram Lipid Profile Plus Liver Function Test Stool Examination R/M Treatment Probiotics Digestive enzymes Antacids Prokinetic agents Mesalazine formulations Tegaserod Antibiotics for treatment of H.pylori infection- Amoxicillin, Clarithromycin ,Tetracycline Tricyclic antidepressants See All Symptoms Of Indigestion

Indigestion refers to a sensation of pain or discomfort in the upper abdominal region. It is not a disease in itself but instead presents as a group of symptoms seen in certain gastrointestinal diseases. You may be suffering from indigestion if you have the following symptoms - Feeling full too soon while eating meals A sensation of bloating in the abdomen Abdominal cramps Pain along the sides of the stomach Burning sensation in the stomach or upper abdomen Hyperacidity Nausea and vomiting Growling or grinding sounds in the stomach Acidic taste in the mouth Burping or belching up stomach contents Flatulence Seek medical attention in the following conditions: Unintentional weight loss or loss of appetite Repeated vomiting or vomiting with blood Black, tarry stools Trouble swallowing that gets progressively worse Fatigue or weakness, which may indicate anemia Causes Of Indigestion

Many factors can cause Indigestion such as - Lifestyle and dietary factors Consuming excess alcohol, caffeinated beverages, and carbonated beverages irritate the stomach and cause indigestion. Eating larger meals that are fried, spicy, or salty also causes stomach upset. Eating stale and undercooked food. Excessive smoking also irritates the stomach and causes indigestion Leading a sedentary lifestyle Overeating or eating too quickly Being stressed or overly anxious most of the time Gastrointestinal diseases Many gastrointestinal diseases cause an upset stomach, such as - GERD (gastroesophageal reflux disease): It causes the contents of the stomach to hurl back into the esophagus and cause symptoms like heartburn and dyspepsia (indigestion). Gastroparesis: It is a condition in which the stomach is not able to empty itself due to affected motility of the stomach. This leads to the sensation of fullness and bloating. Irritable bowel syndrome: It is a condition that affects the absorption of food from the intestines and can cause indigestion. Celiac disease: In this condition, the body abnormally reacts to gluten, a protein found in grains such as wheat and barley. Malabsorption syndrome: It is a condition in which the small intestine is not able to absorb nutrients from the food and body. Gastrointestinal infections: It can cause acute inflammation in the gastrointestinal tract, known as gastritis or gastroenteritis. These may be caused by a variety of microorganisms. Chronic pancreatitis: It can often cause bloating, flatulence, and indigestion. Gastric cancers: They are a rare condition but could be a probable cause of indigestion. Medications Certain medications like NSAID painkillers, antibiotics like fluoroquinolones tetracycline, iron and potassium supplements, cardiovascular drugs like digitalis, etc., can irritate the gastric lining and cause hyperacidity, bloating, or indigestion.

Functional dyspepsia This type of indigestion with no apparent cause is chronic and can last for more than 6 months. It is not associated with stool irregularities either. Other conditions Sometimes indigestion is caused by other conditions such as: Gallstones Constipation Reduced blood flow in the intestine (intestinal ischemia) Diabetes Thyroid disease Pregnancy Risk Factors For Indigestion

Indigestion is a very common condition that affects people of all ages and sex. The incidence of indigestion is found to be higher among Smokers Alcoholics Frequent use of NSAIDs/painkillers Individuals who have suffered from H. Pylori infection Diagnosis Of Indigestion

A single episode of indigestion is not a cause for concern and requires no further evaluation. However, if indigestion is recurrent, accompanied by other troublesome symptoms, and interferes with the person’s daily life and activities, lab investigations and imaging studies may be needed to establish the cause of indigestion.

Laboratory tests Laboratory tests play a limited role in the evaluation of indigestion. Complete hemogram, Lipid profile plus, and liver function test may give an insight into the general health of the patients. Breath test and stool examination R/M may be performed to check for the presence of Helicobacter pylori (H. pylori), the bacterium associated with peptic ulcers and also to find out any disease association, which can cause indigestion. Imaging studies

X-Ray abdomen - helps visualize the internal organs of the abdomen and looks for the presence of obstruction or as part barium swallow testing. USG Abdomen, Dual Phase CT Abdomen - to visualize the internal organs of the abdomen in greater detail and diagnose any abnormalities Barium Meal Follow Through, Barium Swallow - for this study, the patient is made to swallow a drink that has barium in it, followed by taking x-rays of the digestive tract. This helps identify any abnormalities of the esophagus, stomach, or intestines. A gastric emptying scan helps check the time taken by food particles to pass from the stomach to the intestines and can help identify reduced gastric motility. 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. Celebs affected Bill Clinton Former US president Bill Clinton has revealed that he was suffering from acid reflux during his stay in the White House Prevention Of Indigestion

Although indigestion is a very common occurrence, certain lifestyle modifications can help prevent the condition as follows: . Eat fresh, home-cooked food, which is simple and easy to digest. Avoid eating fried and spicy food. Eat smaller portions throughout the day rather than consuming large meals at once. Limit the consumption of aerated beverages and caffeinated beverages. Quit smoking and consumption of alcohol. Avoid taking medications, such as NSAID painkillers, antibiotics, etc., for a longer duration than prescribed. Perform light exercises, such as walking, after consuming heavy meals to help with the digestion process. Drink plenty of water and fluids throughout the day. Do not consume foods that cause allergies. Indigestion is often neglected by many people as they consider it as a common issue which does not require much attention. That may be right to some extent as an occasional episode of indigestion is mostly harmless and can be fixed easily by simple home remedies. Here are some: Indian remedies to treat indigestion naturally. Specialist To Visit

You must visit a doctor if indigestion becomes a chronic problem and/or is accompanied by one or more of the following symptoms: Diarrhea Vomiting Blood in the stools Change in the color or frequency of stools Unexplained weight loss Severe abdominal pain Chest pain In order to diagnose and treat the symptoms of indigestion, you need to visit:

General physician Gastroenterologist Treatment Of Indigestion

The treatment of indigestion aims to provide relief from symptoms and treat the underlying cause.

Symptomatic relief Digestive enzymes and probiotics help relieve the symptoms of indigestion and improve the body’s digestive system. OTC preparations for gas, acidity and indigestion help provide immediate symptom relief. Treatment of underlying cause If symptoms of gas are due to an underlying cause, it is necessary to treat the causative condition to provide complete relief.

Mesalazine formulations are used to treat Crohn’s Disease and ulcerative colitis. Proton pump inhibitors (PPIs) like pantoprazole and omeprazole and H2 receptor blockers like famotidine and ranitidine can reduce stomach acid and may be recommended if you experience heartburn along with indigestion. Antacids and prokinetic agents are used to treat gastroesophageal disease (GERD) and peptic ulcers. Tegaserod preparations are useful in constipation and reduced movement of food from the mouth which leads to symptoms of indigestion. Antibiotics like amoxicillin, clarithromycin & tetracycline are used to treat infections like H. Pylori. Tricyclic antidepressants are used to treat functional dyspepsia, a condition where the cause of dyspepsia is not apparent. Home Care For Indigestion

Most often, symptoms of indigestion, such as abdominal pain, flatulence, or bloating can be managed at home with simple home remedies and lifestyle changes. Here is a list of things to follow in order to reduce indigestion-related problems: Take OTC preparations to help with faster relief of symptoms. Perform mild exercise, such as walking, as it helps with digestion and reduces bloating. Gently massage the abdomen to reduce abdominal cramps and bloating. Modify your diet by increasing the consumption of fiber-rich foods, such as fresh fruits and vegetables. Also, reduce the intake of fatty, spicy foods that are prime cause of indigestion. Limit the consumption of alcohol, aerated, and caffeinated beverages. Modify or reduce the use of medications, such as NSAIDs or painkillers. Ginger, yoghurt, and papaya can fight indigestion You can prevent indigestion from worsening if you avoid foods such as caffeine, high-fat diets, alcohol, and spicy foods. On the other hand, including certain foods in your diet like ginger, papaya, and yoghurt can help you to improve digestion and fight indigestion. Here is a list of few other foods you must include in the diet to fight digestive problems Read To Know More! Complications Of Indigestion

Indigestion does not cause any major complications on its own. The underlying disease, however, may worsen and cause health complications like: Ulceration and bleeding in the gastrointestinal tract due to worsening of GERD and peptic ulcer disease Malnutrition due to the inability of the body to absorb nutrients Increased risk of gastrointestinal cancers Intestinal obstruction Alternative Therapies Of Indigestion

Apart from prescription medications and OTC preparations, there are alternative therapies that may help provide relief from chronic indigestion, such as -

Diet modifications Diet rich in fresh fruits and vegetables can help benefit in relieving the symptoms of indigestion. Along with that, limiting the consumption of spicy foods, fatty foods, and foods that cause allergies helps improve the overall health of the digestive system. It is advisable to eat smaller portions throughout the day instead of eating larger meals all at one go. Also, to prevent indigestion, it is recommended to have a minimum gap of 2 hours between dinner and sleep time. Early dinner, followed by a short distance walk can aid digestion and also help you sleep better.

Exercise and yoga Light exercises can help reduce abdominal discomfort, provide relief from symptoms, and improve digestion. You can do walking, simple whole body movements, light stretching, and Yoga Asanas. Paschimottanasana, Supta Baddha Konasana, Vajrasana, Pawanmuktasana are some yoga asanas suggested for digestive health.

Massage therapy Gentle abdominal massage may help ease abdominal cramps and provide relief from constipation. You can massage your abdomen gently in circular movements, while lying down. Be careful not to exert heavy pressure as it may cause harm to the internal organs.

Ayurveda Ayurveda suggests that indigestion or Ajirna Rog is caused when food is consumed without self-restraint. Bio cleansing therapies like Shodhana Chikitsa and Shamana Chikitsa help manage indigestion.

Natural herbs and spices, such as cinnamon (dalchini), carom (ajwain) seeds, cumin (jeera) seeds, ginger (adrak), asafoetida (hing), fenugreek (methi), etc., help build a strong digestive system and provide relief from flatulence and belching. You can use these herbs and spices in your meal preparations or even consume small quantities directly. Taking a pinch of asafoetida or carom seeds after a heavy meal or sucking on a piece of ginger candy or cinnamon stick can improve digestion. Medicinal preparations like Lahsunadi Vati and Hingavastaka Churna also help reduce indigestion. Amla juice is good for indigestion Amla juice not only helps in indigestion but also acts as an effective remedy in relieving acidity and heartburn. Take 15-20ml of amla juice and add equal amounts of water. Drink this amla juice every morning on an empty stomach for a healthy gut. Click here for more ayurvedic remedies for indigestion. Click Here! Living With Indigestion

Chronic indigestion may impose a lot of dietary restrictions for a patient. The person may not be able to enjoy or occasionally binge on fast foods or snacks. They may need to completely avoid eating food items if they suffer from any allergies such as lactose intolerance.

Chronic indigestion may also cause problems such malnutrition as the patient may avoid eating meals. An acute episode of indigestion may leave the patient extremely weak and fatigued. If suffering from severe symptoms of indigestion such as prolonged nausea, excessive vomiting or diarrhoea, severe stomach cramping, etc., medical care must be sought promptly.

Additionally, here are a few tips which can help people with functional dyspepsia: Your busy schedule rarely gives you a chance to relish your meals, making you eat fast and swallow without chewing thoroughly. Make sure to eat slowly and chew your food properly. Always have your dinner 3 hours prior to bedtime. Ensure you take a small walk before climbing to bed. Drink 1-2 liters of water throughout the day. This will dilute the acid in your tummy and help in better digestion. Include a lot of fresh fruits and vegetables in your diet. Get your daily dose of sleep because lack of sleep is also a key risk factor for stomach problems such as indigestion. Frequently Asked Questions Which foods can cause indigestion? What is the difference between indigestion and acidity? Is indigestion a serious illness? What should I do if I have indigestion? Can food allergies lead to indigestion? References Mahadeva S, Goh KL. Epidemiology of functional dyspepsia: a global perspective. World J Gastroenterol. 2006 May 7;12(17):2661-6. Symptoms & Causes of Indigestion. National Institute of Diabetes and Digestive and Kidney Diseases. Indigestion. NHS UK. Madisch A, Andresen V, Enck P, Labenz J, Frieling T, Schemann M. The Diagnosis and Treatment of Functional Dyspepsia. Dtsch Arztebl Int. 2018 Mar 30;115(13):222-232. Harmon RC, Peura DA. Evaluation and management of dyspepsia. Therap Adv Gastroenterol. 2010 Mar;3(2):87-98. Ford AC, Marwaha A, Sood R, et al. Global prevalence of, and risk factors for, uninvestigated dyspepsia: a meta-analysis Gut 2015;64:1049-1057. Ajirna (Indigestion). National Health Portal India. Ford AC, Marwaha A, Sood R, Moayyedi P. Global prevalence of, and risk factors for, uninvestigated dyspepsia: a meta-analysis. Kim SE, Kim N, Lee JY, et al. Prevalence and Risk Factors of Functional Dyspepsia in Health Check-up Population: A Nationwide Multicenter Prospective Study. J Neurogastroenterol Motil. 2018;24(4):603-613.

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Inflammation within blood vessels (Vasculitis) Also known as Angiitis, Arteritis, Inflammation within blood vessels, and inflammation in arteries Overview Vasculitis is a group of conditions where the body’s immune system causes inflammation and narrowing of blood vessels, including arteries, veins, and capillaries. This can lead to damage to the vessels and interfere with the flow of blood throughout the body. Vasculitis can cause mild to life-threatening symptoms. The exact cause for vasculitis is unclear; however, smoking, substance abuse, unhealthy habits, chronic infections, and genetics can increase the likelihood of developing it. Based on the size of the affected blood vessels, vasculitis can result in diverse symptoms and is classified into 20 disorders. It is vital to determine the type and position of the affected blood vessels and organs before treating it. Maintaining a healthy lifestyle with exercise, a balanced diet, and symptom management can help minimize complications and enhance the quality of life. Treatment usually involves medication to control inflammation and prevent future episodes. Surgery may be required in severe cases. Key Facts Usually seen in All age groups Gender affected Both men and women Body part(s) involved Blood vessels of the entire body Mimicking Conditions Endocarditis Histoplasmosis (fungal infection) Gonococcal arthritis Antiphospholipid syndrome Thrombotic thrombocytopenic purpura Atrial myxoma Lymphoma Necessary health tests/imaging Blood tests: Erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), Antineutrophil cytoplasmic antibodies (ANCA), Complement levels, and IgE levels. Urine dipstick Imaging tests: X-ray, Angiography, Ultrasound scan, EKG, EMG, CT scan, and MRI. Molecular imaging: Positron emission tomography: and PET scan. Biopsy Treatment 1. Medications Non-steroidal anti-inflammatory drugs (NSAIDs): Aspirin Immunomodulators: Azathioprine and Cyclosporine Corticosteroids: Prednisolone, & Methylprednisolone Antimalarial drugs: Hydroxychloroquine Neutrophil-chemotaxis inhibitors: Dapsone and colchicine Antiviral drugs: Interferon α, Ribavirin, Vidarabine, and/or lamivudine Disease-modifying antirheumatic drugs: Rituximab, Cyclophosphamide, Azathioprine, & Methotrexate. Intravenous immunoglobulin G 2. Surgery Plasmapheresis and Bypass surgery. Specialists to consult General Physician Rheumatologists Neurologists Ophthalmologists Cardiologists Nephrologists Pulmonologists Dermatologists Symptoms Of Vasculitis Vasculitis can affect blood vessels in different ways. Palpable purpura, which appears as small raised bruises, is a critical sign of small-vessel vasculitis, but other skin lesions may also occur. Vasculitis can cause a range of symptoms in various parts of the body that include: Red or purple spots, on the skin Itching, lumps, or sores Headaches Fatigue Fever Loss of weight Abdominal pain Pain and numbness in hands and feet Diarrhea Ulcers in the stomach Bleeding in stools Muscle weakness Confusion, and difficulty focusing Dizziness Ringing in the ears or hearing loss Chronic sinus congestion Bleeding from nose Eyes may be red, and itchy Vision problems Difficulty breathing Coughing up blood High blood pressure Arrhythmia (irregular heartbeat) Angina (chest pain) Fluid retention or failure of kidneys Note: In serious cases, vasculitis can block blood vessels, so blood can’t flow through them, or they can bulge (aneurysm) and possibly burst . These symptoms not only take a toll on the body, but can affect the mind as well. Make your mental health a priority with our widest range of mental wellness products to meet your needs. Check them out Types Of Vasculitis

Vasculitis can be differentiated based on the size of the blood vessels affected, falling into one of three general categories. They include: Large vessel vasculitis It affects the body’s large arteries, including the aorta (which transports oxygen-rich blood from your heart to the rest of your body). Following are the types of large vessel vasculitis: 1. Giant cell arteries (temporal arteries): It is generally found in adults older than age 50. It affects upper body parts including the head, temples, and neck. 2. Takayasu arteritis: This type of vasculitis affects the large artery and may cause inflammation, narrowing, or blockage of the arteries or weaken the lining of artery walls that may rupture or burst. Medium vessel vasculitis This category belongs to medium blood vessels. The following are the types of medium vessel vasculitis: 1. Kawasaki disease (KD): It is common in young children (under the age of 5). Inflammation in multiple arteries and veins of the body is seen. It affects lymph nodes, mucous membranes, and skin. It can lead to severe health problems such as heart damage, if not diagnosed and treated properly. 2. Polyarteritis nodosa: It affects multiple blood vessels in different parts of the body, including the skin, heart, kidneys, muscles, and intestines. Small vessel vasculitis As the name suggests, this type is characterized by inflammation and blockage of small arteries. Different types of small vessel vasculitis include: 1. Microscopic polyangiitis (MPA): It causes inflammation of small blood vessels along with inflammation in the kidneys, lungs, and nerves, but also involves the skin and joints. 2. Granulomatosis with polyangiitis (GPA): It is a rare condition that causes inflammation in small blood vessels, and it’s more common in older individuals. 3. Eosinophilic granulomatosis with polyangiitis (EGPA): It is an extremely rare form of vasculitis that causes inflammation in small blood vessels, leading to restricted blood flow and potential organ damage if not treated. It primarily affects the respiratory system and is linked with asthma. 4. Immunoglobulin A (IgA): It is a type of vasculitis that can occur in people of all ages, but is more common in young children. It is caused by the accumulation of immunoglobulin A (an antibody) in small blood vessels. This leads to inflammation and bleeding and can affect various parts of the body such as the skin, joints, kidneys, or intestines. 5. Hypocomplementemic urticarial vasculitis (HUV): It is an uncommon type of vasculitis that causes inflammation of small blood vessels that are linked to antibodies. It can lead to kidney damage and other health issues such as arthritis, lung problems, and eye inflammation. Others 1. Behcet’s disease: This condition affects blood vessels of all sizes and including skin, kidney, heart, brain, and spinal cord. More common during the second and third decades of life. 2. Buerger disease: This is inflammation of small and medium-sized blood vessels. It causes a tightening, or a blockage, of the blood vessels in your feet and hands. Causes Of Vasculitis The exact cause of vasculitis is not yet known. However, it is believed that vasculitis happens when the immune system mistakenly attacks blood vessel cells as if they were foreign objects. This makes it an autoimmune disease. Certain types of vasculitis may be linked to a person’s genetics as well. Risk Factors For Vasculitis

Vasculitis is a rare autoimmune disease that can affect anyone. Some of the risk factors associated with vasculitis are: 1. Family history Vasculitis runs in families, and the most common types include: Behçet’s disease IgA vasculitis Kawasaki disease 2. Lifestyle choices Smoking can increase your risk of Buerger’s disease, especially if you’re a man younger than 45. Using drugs such as cocaine also raises your risk of developing vasculitis. It’s never too late to quit smoking. Try our widest range of smoking cessation products available to help you get rid of this deadly habit successfully. Explore here 3. Medications The risk of vasculitis increases if you take certain medicines like hydralazine, levamisole, propylthiouracil, and tumor necrosis factor inhibitors (used to treat some immune diseases). 4. Medical conditions Disorders that can increase your chances of getting vasculitis include: Autoimmune disorders: People with disorders in which their immune systems start attacking their body parts by mistake may be at higher risk of vasculitis. These disorders include lupus, Sjogren’s syndrome, rheumatoid arthritis, and scleroderma. Cancer: Such as lymphomas can increase the risk of vasculitis. Studies suggest that cutaneous vasculitis is a manifestation of cancer. Infections: Having hepatitis B or C infections can increase your risk of vasculitis. Also, bacterial infections like gonorrhea may be associated with small-vessel vasculitis. 5. Sex Depending on the type, the prevalence among men and women can change. For example: Buerger’s disease: It is most common in men Giant cell arteritis: It affects women 4 times more often than men Microscopic polyangiitis: It affects men slightly more often than women. 6. Race Ethnicity can also increase your risk of vasculitis like: Behçet’s disease: Common in the Mediterranean, the Middle East, Central Asia, China, and Japan. Giant cell arteritis: Common in Scandinavia and Minnesota. Kawasaki disease: Common among Japanese children.

Did you know? Systemic vasculitis can increase your complications if you are infected with the COVID-19 virus. Keep your guard up with our coronavirus prevention range here. Stock up

Diagnosis Of Vasculitis

Diagnosing vasculitis can be tricky as there are several types and the symptoms can overlap with those of other conditions. Your doctor will ask questions regarding your health and recent medication. They will also do a physical exam and various tests to determine the type of vasculitis or rule out other conditions that look like it. Diagnostic approaches includes: Blood tests Antibodies and certain types of blood cells can be signs of vasculitis. These blood tests include: Erythrocyte sedimentation rate (ESR) test: These tests can help determine whether inflammation is present or not. C-reactive protein (CRP) test: It is done to check chronic disease or severe infection. A higher CRP value can indicate a sign of acute inflammation in the body. Antineutrophil cytoplasmic antibodies (ANCA): This blood test helps to determine whether ANCA is present in your bloodstream to check for any autoimmune activity. Complement levels: This test is done to determine bacterial or viral infection as the cause of vasculitis. IgE levels: The IgE is an antibody, that the immune system produces to identify and eliminate harmful microorganisms. Hepatitis panel: It is a blood test used to determine if a person has been infected with hepatitis A, B, or C viruses. Antiglomerular basement membrane (GBM) antibodies: This test is done to check for any kidney damage as a result of viral infection. Antinuclear antibody (ANA): This helps to detect if there are autoimmune diseases. Antiphospholipid antibodies (APL): This blood test indicates the occurrence of Antiphospholipid syndrome (APS), which is an autoimmune disorder that causes abnormal blood clotting due to antibodies. HIV test: To rule out HIV infections in individuals presenting with symptoms of vasculitis. Urine dipstick and microscopic tests A urine dipstick involves dipping a specially treated paper strip into a sample of your urine. These will help to detect the presence of blood and protein in the urine, which are the first signs of small vessel vasculitis in the kidneys (inflamed kidney). Imaging tests These tests can help evaluate and confirm which blood vessels and organs are affected. They include: X-ray Angiography Ultrasound scan Electrocardiogram (EKG) Electromyography (EMG) Computed tomography (CT) scan Magnetic resonance imaging (MRI) scan Biopsy It is a minor surgical procedure in which a small piece of tissue is removed from the affected area of your body. Your doctor then examines this sample of tissue under a microscope for certain signs of vasculitis. This procedure is helpful in evaluating the types of small vessel vasculitis and medium vessel vasculitis. Molecular imaging This is a growing area of research that visualizes, characterizes, and quantifies the processes taken in the body. This is a newer advancement in the imaging of vasculitis that includes:

Positron emission tomography: This test measures the function by looking at blood flow, metabolism, neurotransmitters, and drugs. PET scan: This test is used in the diagnosis of large vessel vasculitis.

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Celebs affected Ashton Kutcher The renowned Hollywood actor was diagnosed with vasculitis. Recently, he tweeted about the condition and his recovery. Specialist To Visit

Detecting vasculitis early is crucial for receiving effective treatment and avoiding further complications. A general physician may identify symptoms and conduct a physical exam, but specialists are needed to diagnose and treat specific organ involvement that includes:

Rheumatologists Neurologists Ophthalmologists Cardiologists Nephrologists Pulmonologists Dermatologists A rheumatologist is a doctor who specializes in treating inflammatory diseases such as arthritis as well as other issues like tendon and muscle injuries. Doctors who specialize in specific areas include neurologists for brain and nerve disorders, ophthalmologists for eye problems; nephrologists for kidney conditions; pulmonologists for respiratory illnesses; and dermatologists for skin, hair, and nail problems.

Consult our professional doctors to get the right diagnosis and treatment. Talk to an expert Prevention Of Vasculitis

Vasculitis is an autoimmune disorder that cannot be prevented, but lifestyle changes and identifying the cause can reduce the risk and prevent flare-ups. They include: 1. Quit smoking and tobacco Tobacco use increases the likelihood of developing vasculitis by disrupting the immune system but quitting smoking can be a highly effective way to protect yourself from this condition.

Want motivation to quit smoking? Learn how your body reacts when you stop smoking. Read this 2. Stay clear of drugs Vasculitis is one of the common side effects of using illegal drugs. Refraining from such activities can lessen your chances to some extent. 3. Lose some weight Obesity can worsen the disease’s progression. Engaging in low-intensity exercises for 20-30 minutes, such as walking, swimming, and yoga, can help with weight management and improve blood flow.

A variety of factors can cause obesity. Learn more about the root causes of obesity and ways to combat them. Read this 4. Take vitamins and supplements Supplements containing Vitamin D, Vitamin C, and antioxidants can reduce the risk of vasculitis.

Explore our widest range of vitamin and mineral supplements to take care of all your requirements. Browse here 5. Choose a healthy diet Eating foods with antioxidants can help fight infections. Increase your intake of foods high in vitamins and fiber, such as fruits, vegetables, nuts, seeds, whole grains, lean proteins, low-fat dairy products, and limited amounts of saturated fat. Switching to a healthy diet can prevent illnesses and minimize damage to the body. Want to know how to get maximum nutrition from your diet? Watch this video to learn Treatment Of Vasculitis

The treatment of vasculitis depends on the type, location, and severity of the condition. The main objective is to decrease inflammation in the affected area and control any underlying factors that may be causing it. It includes: Medicines Medications are prescribed depending on the intensity of the symptoms and the progression of the disease. They include Non-steroidal anti-inflammatory drugs (NSAIDs): IgA vasculitis is typically treated conservatively with NSAIDs like aspirin. Immunomodulators: These are commonly used to sustain disease remission in the treatment of ANCA-associated vasculitis. The drugs used are: Azathioprine Cyclosporine Corticosteroids: Corticosteroids are used as first-line treatment, and they have anti-inflammatory properties. The drugs used are: Prednisolone Methylprednisolone Disease-modifying antirheumatic drugs (DMARDs): These are recommended only if corticosteroids don’t work well or show major side effects. They include: Rituximab Cyclophosphamide Azathioprine Methotrexate Antimalarial drugs: Hydroxychloroquine, has been successful in treating hypocomplementemic urticarial vasculitis (huv) but not other types of small vessel vasculitis. Neutrophil-chemotaxis inhibitors: These are used in the initial treatments for Behçet’s disease and similar disorders without systemic involvement. They include: Dapsone Colchicine Antiviral drugs: These are important in treating virus-associated cases of vasculitis. Most commonly used ones are: Interferon α Ribavirin Vidarabine Lamivudine Dual endothelin receptor antagonists: These block the action of a chemical called endothelin that can reduce blood flow. Interleukin antagonists: These reduce swelling by blocking a protein in the body that causes the swelling. Phosphodiesterase inhibitors: These drugs increase blood flow by blocking the action of a particular enzyme in the body.

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Intravenous immunoglobulin G (IVIgG) IVIgG is the preferred treatment for Kawasaki disease, as it helps prevent the development of aneurysms and improves various symptoms. Note: The medicines used in the treatment of vasculitis often have to be taken for a long time and can have side effects. It is important to talk to your doctor about your medicines and their side effects. Surgery Vasculitis can sometimes cause an abnormal bulging of blood vessels called an aneurysm, which can be treated with surgery to prevent bursting. In more severe cases, surgery may be needed to repair damaged blood vessels and organs or even transplant organs. Surgical procedures include:

Plasmapheresis: It is done to reduce plasma antibody levels by removing and replacing blood plasma (liquid portion of blood). Bypass surgery: This may be helpful in restoring blood flow in certain areas affected by Buerger’s disease. Maintenance of remission Corticosteroids are tapered to zero or to the lowest dose that can maintain remission. IV rituximab may also be used to maintain remission, but the optimal dosage and infusion interval have not been clearly established. Individuals with frequent relapses may need to take immunosuppressants indefinitely. Home-care Of Vasculitis

Home remedies that can help alleviate the symptoms of vasculitis and its types include: Turmeric (Haldi): Studies suggest that turmeric, also known as curcumin, is helpful in managing autoimmune conditions due to its anti-inflammatory properties. Buy turmeric products online Buy turmeric products online Akarkara: Akarkara root or extract is generally used to manage pain and inflammation due to its antioxidant property. Garlic (Lahsun): It can be beneficial in the management of urticarial vasculitis due to its anti-inflammatory effect. Ashwagandha: It has antibacterial properties, which help fight and prevent infections. Holy basil (Tulsi): It has anti-inflammatory and anti-bacterial properties which can be beneficial for individuals with vasculitis. Explore tulsi products here Apple cider vinegar: It can decrease digestive symptoms associated with vasculitis. Check out our exclusive range of apple cider vinegar products. Click here

Complications Of Vasculitis

If vasculitis goes undiagnosed for a long time, it can lead to serious complications. They include: Infections: Some of the prescribed medicines which are used to treat vasculitis may weaken your immune system. This can make you more prone to infections. Blood clots and aneurysms: Vasculitis can lead to blood clots usually obstructing the blood flow. It can also cause a blood vessel to weaken and can develop an aneurysm. Vision loss or blindness: This is a complication of untreated giant cell arteritis. Stroke: The inflamed vessel wall can block oxygen flow to the brain. It can lead to loss of brain function and ultimately strokes. Organ damage: Some types of vasculitis can be severe, causing damage to major organs such as inflammation of the kidneys, heart, lungs, and other organs.

Did you know that? Vasculitis is a potential complication of COVID-19, with certain types such as leukocytoclastic (LCV), IgA, and Kawasaki disease. Learn more about COVID-19

Alternative Therapies For Vasculitis

Complementary therapies along with comprehensive treatment can benefit individuals with vasculitis to manage their symptoms. These therapies include: 1. Compression therapy Studies suggest compression therapy by short stretch bandages in vasculitic ulcers can be quite useful to improve the healing time, relieve the burning sensation and pain, due to the reduction of inflammation of blood vessels.

Check out our extensive range of healthcare devices to get your compression support. Buy them here 2. Chinese herbal medicine Studies have analyzed Chinese herbal medicine (CHM) for the treatment of vasculitis. These studies suggest that CHM can be given to ease and reduce inflammation of the blood vessels. It shows excellent results in the treatment of children with Kawasaki disease. 3. Acupuncture It uses needles to lower the levels of chemicals that cause inflammation in the body. It can help reduce pain and is beneficial for individuals with giant cell vasculitis. 4. Homeopathy This therapy can be effective in treating vasculitis as it targets the root cause of the disease, which is an abnormal immune system. Selecting the appropriate constitutional homeopathic remedy, can boost the immune system and alleviate vasculitis symptoms without any adverse effects. However, it is crucial to seek medical advice before considering any alternative treatment. 5. Yoga and meditation Practicing yoga and meditation can increase energy and reduce chronic fatigue. These techniques involve deep breathing and positive visualization, which can reduce stress and anxiety and improve immune function by relaxing the body and mind. They also promote positive thinking and mental strength, which are important for fighting serious illnesses. Want to understand more benefits of yoga? Read this

Living With Vasculitis

Vasculitis can greatly affect a person’s life and relationships, and can also impact their ability to work. Doctors focus on preventing organ damage and side effects but it’s important to remember that it’s still possible to have a happy life with vasculitis. A few points that can help include: 1. Give importance to follow-up care If you experience any new symptoms or other changes in your health, report to your doctor immediately. Regular health checkups and visits can help to monitor any side effects from the given medicine to treat vasculitis. 2. Get your vaccinations Routine vaccinations protect you from infectious diseases such as pneumonia, flu, etc. It can help prevent problems and complications that can result from vasculitis treatment. 3. Plan a safe pregnancy If you had vasculitis as a child and plan to become pregnant, inform your healthcare provider. Also, vasculitis increases the risk of high blood pressure during pregnancy, so blood pressure should be closely monitored. Do not stop taking medication without consulting your doctor. 4. Exercise regularly Try to exercise more often as it will help you to prevent fatigue and tiredness. It even helps to reduce high blood pressure, regulates blood flow, and prevents other health complications which can be associated with vasculitis. 5. Maintaining a strong support system Living with vasculitis can get tiring and difficult and it is vital to seek support from loved ones and connect with support groups for those with vasculitis, which can be recommended by a doctor. 6. Try to avoid flares-ups Following the advice of your doctor and adopting a healthy lifestyle can help you with flare-ups and prevent relapse. Frequently Asked Questions Is vasculitis curable? Will my children or other family members get vasculitis? Is vasculitis serious? Is chemotherapy used to treat vasculitis? Can long-term use of steroids to treat vasculitis cause health issues? References Jatwani S; Goyal A. 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Influenza (flu) Also known as Flu Overview Influenza, most commonly referred to as the “flu” is a contagious viral infection caused primarily by the influenza virus A or B. It generally affects the nose, throat, bronchi, and lungs (i.e. upper respiratory organs) but other organs such as the heart, brain, and muscles can also get affected in severe cases.

The occurrence of influenza is worldwide showing pandemic, epidemic, or seasonal patterns. Epidemics of flu happen annually during autumn and winter in temperate areas and produce significant mortality and morbidity each year.

The virus is transmitted from person to person with respiratory droplets produced when the patient coughs or sneezes within close contact (<1 m). Individuals usually recover after a few days, but influenza can give rise to complications, especially in high-risk groups like pregnant women, individuals with an underlying immunodeficiency state, adults older than 65 years of age, children below 5 years, and individuals with chronic diseases like asthma, heart and kidney conditions.

The symptoms of flu include high fever, body ache, headache, severe malaise, dry cough, sore throat, and runny nose. It should be differentiated from the common cold by clinical presentations. Flu also shares some of its symptoms with COVID -19 infection. One cannot tell the difference between flu and COVID-19 just by looking at the symptoms, hence, testing is needed to confirm the diagnosis. Testing is also important as it can determine if someone is suffering from both flu and COVID-19 at the same time.

Treatment of flu involves relieving the symptoms and in some cases, the use of antiviral drugs is also required. Though the annual influenza vaccine isn’t 100% effective, it’s still the best defense against the flu. Key Facts Usually seen in Children under 59 months and individuals above 65 years of age. Gender affected Both men and women Body part(s) involved Nose Throat Lungs Prevalence India: 81.4% (2012) Mimicking Conditions Pneumonia Common cold Strep throat COVID-19 Bronchitis Respiratory syncytial virus Necessary health tests/imaging Molecular assay (rapid) Rapid influenza diagnostic Test (RIDT) Immunofluorescence assay (direct and indirect) Rapid cell culture (shell vials; cell mixtures) Treatment Neuraminidase inhibitors (i.e. oseltamivir) and corticosteroids See All Symptoms Of Influenza

Each person may experience symptoms in a different manner. Though influenza is a respiratory disease, it can affect the entire body. Sometimes individuals may have trouble figuring out whether they have a common cold or the flu.

There are differences between them like the symptoms of a cold usually come on more slowly and are less severe than symptoms of the flu. Colds rarely cause a fever or headaches. In the case of influenza people usually become very sick with most, or all, of the following symptoms: Cough that becomes severe gradually Extreme exhaustion or tiredness Severe muscle aches and pains Runny or stuffy nose Occasional sneezing Fatigue for several weeks Headache Loss of appetite High fever with chills Sore throat Vomiting and diarrhea (more common in children) Pale face with watery and red eyes Fever and body aches usually last for 3 to 5 days, but cough and fatigue may last for 2 weeks or more. Know the difference between common cold and flu. Click To Know!

Similarities and differences between influenza and common cold

Influenza (flu) and the common cold are both contagious respiratory tract illnesses, but they are caused by different viruses. They have a lot of similarities and it becomes difficult to distinguish between them. Some of the most common similarities and differences include:

1. Symptoms Similarity: The symptoms of cold and flu are very similar at the onset with runny nose, headache, fatigue and difficulty in breathing. Difference: Cold symptoms are usually milder than the symptoms of flu and it generally does not result in serious health problems.
2. Cause Similarity: Both cold and influenza are caused by viruses. Difference: Flu is caused by influenza viruses only, whereas the common cold can be caused by a number of other viruses, including rhinoviruses, parainfluenza, and seasonal coronaviruses.
3. Incubation period Similarity: Both the diseases are highly contagious and have an incubation period (the period between exposure to an infection and the appearance of the first symptoms) of minimum 1 day before the individual starts experiencing symptoms. Difference: The exact incubation period for influenza is 1-4 days and 1-7 days for cold.
4. Duration of illness Similarity: Influenza and common cold cause respiratory tract illness ranging from 4 days to two weeks. Difference: A cold’s duration (how long it lasts) is about 7 to 10 days; however, depending upon the viral strain, it can last up to two weeks. The flu’s duration varies from about 5 days to two weeks depending upon the severity of the infection.
5. Risk factors Similarity: Both have similar risk factors i.e. younger children, old people, pregnant women and immunocompromised individuals are at a higher risk. Difference: Individuals who do not receive the yearly flu vaccine are more likely to risk getting infected with a flu virus but there is no vaccination to prevent against common cold. It is important to know the difference between common cold and influenza (flu). Do not ignore the symptoms or take them lightly. Read more about how to know when your cold is more than a cold? Click Now!

Similarities and differences between influenza (flu) and COVID-19

Influenza (flu) and COVID-19 are both contagious respiratory infections of the respiratory system but are caused by different viruses. COVID-19 is caused by an infection with a coronavirus (first identified in 2019). And influenza is caused by infection with a flu virus (influenza viruses). These two infections have caused havoc in the world. Let us look at some of the common similarities and differences between them:

1. Duration of illness Similarity: It takes 1 or more days before an infected person starts experiencing the symptoms of illness. Difference: COVID -19 may take a longer duration for the symptoms to start whereas in the case of flu the symptoms begin between 1-4 days.
2. Duration of the spread of the virus Similarity: It is possible to spread the virus for at least 1 day before experiencing any symptoms. Difference: If a person has COVID-19, they could be contagious for a longer time than if they have flu (7 days).
3. Mode of the spread Similarity: Both COVID-19 and flu can spread from person to person between people who are in close contact with one another i.e within about 6 feet through droplets from sneezing, coughing, or talking. Difference: Though the virus that causes COVID-19 and flu viruses are thought to spread in similar ways, COVID-19 is generally more contagious than flu viruses.
4. Individuals at risk Similarity: Both COVID-19 and flu illness can result in severe illness and complications in older adults, individuals with certain underlying medical conditions, and pregnant women. Difference: COVID-19 seems to cause more serious illnesses in some people resulting in hospitalization and death can occur even in healthy people.
5. Complications Similarity: Respiratory complications occur in patients infected with influenza or COVID -19. Difference: Most people who get flu will recover on their own in a few days to two weeks whereas COVID -19 complications can happen even after the recovery (long covid syndrome). COVID- 19 is here to stay, but we need to adapt to it and get accustomed to the “new normal”. Read more about the FAQs on COVID- 19. Click Here!

Causes Of Influenza

Influenza viruses belong to the family of viruses called “Orthomyxoviridae”, an RNA-type virus. Viruses have spherical or filamentous shapes with an envelope, containing glycoproteins and a single-stranded RNA gene. The 2 most important glycoproteins over the outer layer of the flu virus are hemagglutinin (H, or HA) and neuraminidase (N, or NA). Both of them have important roles in the spread of the disease.

The influenza viruses are divided into 3 main types i.e A, B, and C. Most of the epidemics (a widespread occurrence of an infectious disease in a community at a particular time) and outbreaks of flu are caused most commonly by types A and B, with type C being generally responsible for sporadic mild upper respiratory symptoms.

Type A influenza virus For influenza type A, at least 16 highly variable hemagglutinins( a glycoprotein which causes red blood cells to clump together- H1 to H16) and 9 distinct NAs (N1 to N9) have been recognized so far. With the aid of these different antigens, the influenza type A virus is further subdivided into subtypes on the basis of variable combination patterns of their own specific H or N proteins, for example H1N1 or H3N2.

Type B influenza virus The influenza B virus has a similar viral structure to type A, but, due to the fixed antigenic characters of HA and NA, there are no subtypes in this virus. Still, since the 1970s, some small antigenic variability has been reported in this virus. Also, studies have shown that this virus has started to diverge into 2 antigenically distinguishable lineages. Risk Factors For Influenza

Influenza vaccination is the primary method for preventing influenza and reducing the risk of severe outcomes. However, groups of individuals who are at high risk include: Adults above the age of 65 years Children below 5 years (especially< 2 years) Pregnant women (2nd or 3rd trimester of pregnancy up to 2 weeks postpartum) Residents of nursing homes and other long-term care facilities Individuals with certain chronic medical conditions like Chronic pulmonary diseases Cardiovascular conditions Diabetes mellitus Kidney disorders Liver diseases Blood disorders Metabolic disorders Cognitive dysfunction Neuromuscular disorders Stroke Seizure disorders Immunocompromised patients Current or past use of tobacco Obese individuals with BMI > 40 Children and adolescents receiving aspirin or salicylate-containing medications might be at risk for developing Reye syndrome (a rare but serious condition that causes swelling in the liver and brain) with influenza virus infection. Did you know? Asthma and influenza (flu) are two common conditions of the respiratory tract that affect millions of people worldwide. Learn more on how flu affects people with asthma and what you should do to prevent health complications. Click Now! Diagnosis Of Influenza

Influenza virus testing is not required to make a clinical diagnosis of influenza in outpatients with suspected influenza, particularly when seasonal influenza A and B viruses are circulating in the local community.

Influenza testing is recommended for all patients requiring hospitalization with suspected influenza, including those admitted to the ICU during influenza season with acute respiratory illness and community-acquired pneumonia, without a clear alternative diagnosis. Also, all individuals requiring critical care outside of influenza season should be tested for influenza if there is a possible link to an individual with recent influenza, such as travel to areas with influenza activity or exposure to an institutional influenza outbreak.

However, during periods of low influenza activity and outside of epidemics situations, the infection of other respiratory viruses e.g. parainfluenza, rhinovirus, respiratory syncytial virus,and adenovirus can also present with similar symptoms which makes the clinical differentiation of influenza from other viruses difficult.

Several kinds of influenza diagnostic tests are available in clinical settings with variable sensitivities and specificities. They include:

Rapid influenza diagnostic Test (RIDT) Rapid influenza diagnostic tests (RIDTs) are the most common tests used in clinical settings. RIDTs work by detecting the parts of the virus (antigens) that stimulate an immune response. These tests can provide results within approximately 10-15 minutes but may not be as accurate as other flu tests as their reliability depends largely on the conditions under which they are used. Therefore, one could still have influenza, even though your rapid test result is negative.

Rapid molecular assay Rapid molecular assays are a new type of molecular influenza diagnostic test to detect influenza viral RNA or nucleic acids in upper respiratory tract specimens in approximately 15-30 minutes. They are more accurate than RIDTs.

In addition to RIDTs and rapid molecular assays, there are more accurate tests available that have to be performed in specialized laboratories. Results may take one to several hours. Proper collection, storage and transport of respiratory specimens is the essential first step for laboratory detection of influenza virus infections. Sample collection requires the healthcare provider to swipe the inside of your nose or the back of your throat with a swab and then send the swab for testing. The tests are discussed below:

Reverse transcription polymerase chain reaction (RT-PCR) Reverse Transcription-Polymerase Chain Reaction (RT-PCR) can identify the presence of influenza viral RNA in respiratory specimens with very high sensitivity and specificity.

Immunofluorescence assay (direct and indirect) Immunofluorescence assays are antigen detection assays that generally require use of a fluorescent microscope to produce results in approximately 2-4 hours with moderate sensitivity and high specificity. Both direct (DFA) and indirect fluorescent antibody (IFA) staining assays are available to detect influenza A and B viral antigens in respiratory tract specimens. Subtyping or further identification of influenza A viruses is not possible by immunofluorescence assays.

Viral culture (shell vials; cell mixtures) Viral or rapid cell culture results do not yield timely results to inform clinical management. Shell-vial tissue culture results may take 1-3 days, while traditional tissue-cell viral culture results may take 3-10 days. However, viral culture allows for extensive antigenic and genetic characterization of influenza viruses. The collection of some respiratory samples for viral culture is essential for surveillance and antigenic characterization of new seasonal influenza A and B virus strains that may need to be included in next year’s influenza vaccine. Serologic testing Serological testing for influenza is not recommended for clinical decision-making. Although offered by some commercial laboratories, serological testing results for antibodies to influenza A or B viruses on a single serum specimen cannot be reliably interpreted. Proper serological testing for diagnosis of influenza requires paired acute and convalescent sera collected 2-3 weeks apart, with reliable testing at a limited number of public health or research laboratories to assess a 4-fold or greater rise in influenza virus strain-specific antibodies. Therefore, serological testing for influenza does not provide timely results to help with clinical decisions-making and is not recommended except for research and public health investigations.

H1N1 is a subtype of influenza and is commonly known as swine flu. Read about H1N1 qualitative RT-PCR. Click To Read!

Celebs affected Walt Disney The wonderful world of Disney,” was not so magical when Walt was afflicted with the influenza virus. Assigned first to a training facility on the south side of Chicago, Disney came down with the flu. He returned home to be nursed back to health by his mother before rejoining the Corps in December. David Lyod George In September 1918, the Prime Minister of the United Kingdom encountered the influenza pandemic in Manchester, England, the city of his birth. He survived, and was widely hailed as the man who won the war. Prevention Of Influenza

Influenza is commonly seen during seasonal changes and affects almost all age groups. It can be prevented to a certain extent through the following:

Vaccination The best way to prevent influenza is to receive an influenza vaccination every year as stated by the Centers for Disease Control and Prevention (CDC). Anyone above the age 6 months and older should get vaccinated annually. The best time to get the flu vaccine is in the early fall months ie. August to October. It takes about 3 weeks for the vaccine to wield its protective benefits.

Flu vaccines can vary in how well they work, but even in cases when flu vaccination does not prevent infection completely, it can reduce the severity and duration of disease and prevent serious complications especially in elderly patients.

Vaccination is especially important for people at high risk of influenza complications, and for people who live with or care for the people at high risk. WHO recommends annual vaccination for the following groups of people: Health-care workers Pregnant women at any stage of pregnancy Children between 6 months to 5 years of age Elderly individuals above 65 years of age Individuals diagnosed with chronic medical conditions Although the flu vaccine is safe, it is contraindicated or not advised in case someone is: Allergic to eggs Allergic to a previous dose of any influenza vaccine Suffering from a fever. It is advisable to get the vaccine shot after recovering from illness. Having history of Guillain-Barré syndrome, a severely paralyzing condition, after getting the flu vaccine Nasal flu vaccine which is administered through the nose is also available for prevention of flu. However, it is not advised in the following: Children and adolescents who are taking aspirin or any type of salicylate-containing medications. Children who are 2 to 4 years of age who have been diagnosed with asthma or have a history of wheezing. Immunocompromised patients. Caregivers or close contacts of severely immunosuppressed patients. Pregnant women. Patients who have received antiviral drugs to treat the flu within the past 48 hours. Note: Pre-exposure or post-exposure prophylaxis with antivirals is possible but depends on several factors e.g. individual factors, type of exposure, and risk associated with the exposure. Learn more about inactivated influenza vaccines. Click Now!

Chemoprophylaxis strategy Available antiviral drugs play an important role for patients who have not been immunized or who are nonresponsive to vaccines. Oseltamivir and zanamivir are the recommended drugs for the prevention of influenza based on their established efficacy and low rates of resistance in comparison to adamantanes that include the oral medications amantadine and rimantadine that block the M2 ion channel on influenza A viruses. Some indications for chemoprophylaxis include: Influenza prophylaxis should be given during influenza outbreaks in long-term care centers in the elderly regardless of prior influenza vaccinations To be given in unvaccinated individuals at high risk of influenza complications who have been exposed to an individual with influenza infections within the previous 48 hours For vaccinated persons at high risk of influenza complications who have had close contact with an individual with influenza within the previous 48 hours when there is a poor match between the vaccine and circulating viruses in a given year The United States’ ACIP recommends that antiviral chemoprophylaxis be considered in pregnant women and in women up to 2 weeks postpartum who have close contact with suspected or confirmed influenza A-infected individuals. Zanamivir may be the drug of choice for prophylaxis due to its limited systemic absorption General measures Apart from vaccination and antiviral treatment, the public health management includes maintaining personal protection through: Washing hands regularly with proper drying of the hands Covering mouth and nose when coughing or sneezing, using tissues and disposing of them correctly Self-isolating at an early stage of those feeling unwell, feverish and having other symptoms of influenza Avoiding close contact with sick people Avoiding touching one’s eyes, nose or mouth. Kids, pregnant women, diabetics, elderly people and those with a weak immune system are at a high risk of suffering from this viral infection. Hence, it is wise to follow preventive measures to protect from seasonal flu rather than get it treated after acquiring the infection.Read about 7 tips to prevent seasonal flu. Click Here! Specialist To Visit

Most people who have the flu (influenza) have a mild illness and can be managed at home. However if any individual has fever above 100 F (38 C), cough or sore throat might need medical interventions from: General physician Pediatrician If you are facing such an issue, seek advice from our professionals. Consult Now!

Treatment Of Influenza

Influenza also known as flu causes mild illness generally and the treatment depends on the condition of the patient, that includes:

Patients with uncomplicated seasonal influenza Patients that are not from a high risk group should be managed with symptomatic treatment. If they are symptomatic it is best to stay home in order to minimize the risk of infecting others in the community. Treatment mainly focuses on relieving symptoms of influenza such as fever, cough, cold or sore throat. Patients should monitor themselves to detect if their condition deteriorates and seek medical attention.

Patients that are known to be in a group at high risk for developing severe or complicated illness should be treated with antivirals in addition to symptomatic treatment as soon as possible.

Patients with severe or progressive clinical illness Patients associated with suspected or confirmed influenza virus infection like clinical syndromes of pneumonia, sepsis or exacerbation of chronic underlying diseases, should be treated with antiviral drugs as soon as possible. These drugs may shorten the illness and help prevent serious complications. The drugs are discussed as follows:

Oseltamivir phosphate (Tamiflu): This is an oral prescription drug used to treat influenza in patients who are two weeks of age and older. It is also approved to prevent flu in patients who are one year of age and older. Important points regarding this drug are: This drug should be prescribed as soon as possible (ideally, within 48 hours following symptom onset) to maximize therapeutic benefits. Administration of the drug should also be considered in patients presenting later in the course of illness. Treatment is recommended for a minimum of 5 days, but can be extended until there is satisfactory clinical improvement. Potential side effects include nausea, vomiting, nosebleeds, headaches and tiredness. Zanamivir (Relenza): This drug is approved to treat flu in patients seven years and older, and to prevent flu in patients who are five and older. This product is inhaled through a device similar to an asthma inhaler. It is not recommended for people who have certain chronic respiratory illnesses like asthma or COPD. Common side effects of the drug include headache, nausea, diarrhea, nose irritation and vomiting.

Peramivir (Rapivab): Peramivir is approved to treat influenza in patients 2 years and older. This drug is injected into the vein (intravenously) by a healthcare provider. A common side effect of this drug is diarrhea.

Baloxavir (Xofluza): This drug is approved to treat flu in people 12 years old and older. Common side effects include diarrhea, bronchitis, nausea and headache.

Antiviral drugs: Antiviral drugs like amantadine and rimantadine (Flumadine) are older antiviral drugs which are approved to treat influenza, but most circulating strains of influenza have become resistant to them. Hence, they are no longer recommended.

Corticosteroids: These should not be used routinely, unless indicated for other reasons (eg: asthma and other specific conditions); as it has been associated with prolonged viral clearance, immunosuppression leading to bacterial or fungal superinfection.

Corticosteroids are powerful anti-inflammatory drugs which are used to provide symptomatic relief from inflammation, swelling, redness, and itching. Read about do’s and don’ts you need to know about corticosteroids. Click Here! Home-care For Influenza

Influenza or flu is caused by a virus. While it causes mild sickness it can also cause symptoms like stuffy nose, sore throat and fever. Here are some homecare tips that can help soothe flu symptoms and may also shorten the duration of the flu. They are: Drink a lot of liquids to be well hydrated and keep the throat, nose and mouth moist Increase your fluid intake in the form of coconut water, fresh fruit juices, broths, herbal teas, and soups. Get adequate rest to fight the fatigue and malaise Uptake the mineral intake. Use zinc and Vitamin C to boost the immunity Do rigorous salt water gargles to relieve symptoms of sore throat Take lozenges, these will provide soothing effect to the throat Eat a well balanced diet and get all the nutrition. Food items to include are: Eggs Dairy products Cereals Green leafy vegetables Fresh fruits Dry fruits Apply essential oils directly on the chest, throat and nose as they have antiviral and antibacterial properties, and do not ingest them. Some of the beneficial essential oils are: Cinnamon oil Peppermint oil Eucalyptus oil Geranium oil Lemon oil Thyme oil Oregano oil Do steam inhalation in case of stuffy nose as the vapors from the steam can help loosen the loose mucus congestion, relieve swelling in the nose and lungs and help to soothe a dry cough, irritated nose, and chest tightness. Use a humidifier to add humidity in your home and workplace that might help reduce flu viruses in the air. Avoid certain foods in case of diarrhea and vomiting. These food items include: Caffeine Meats Spicy foods Fied foods Fatty foods Alcohol Apply vapor rub and keep yourself warm. Blow the nose in the right way i.e. press a finger over one nostril while blowing gently to clear the other. Most people are prone to common cold during winters, however, it is possible to catch a cold all around the year. Hence, it is important to follow a few tips that can reduce the risk of catching a cold. Read about 5 Simple tips to prevent the common cold. Tap Now! Complications Of Influenza

Influenza is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and sometimes the lungs. It generally causes mild to moderate symptoms, but in certain cases can lead to complications that include:

Pneumonia The most important and common complication of influenza is pneumonia that may happen as a continuation of the acute influenza syndrome when caused by the influenza virus (primary pneumonia) or as a mixed viral and bacterial infection after a gap of a few days (secondary pneumonia).

Primary influenza viral pneumonia The illness occurs after the typical course of flu with a rapid progression of fever, shortness of breath, cough, cyanosis (low blood oxygen), and difficulty breathing. It happens predominantly among individuals with cardiovascular or underlying pulmonary diseases such as asthma.

The most severe cases progress rapidly to acute respiratory distress syndrome (when fluid builds up in the tiny, elastic air sacs (alveoli) in the lungs) along with involvement of multiple lobes. These patients usually present with progressive dyspnea (shortness of breath) and severe hypoxemia (when enough oxygen is not available to maintain the self regulating mechanism in the body) 2 to 5 days after the onset of typical influenza symptoms. Hypoxemia increases rapidly and causes respiratory failure, requiring intubation and mechanical ventilation, maybe after only 1 day of hospitalization.

Secondary bacterial pneumonia Recently, community–acquired methicillin-resistant Staphylococcus aureus was determined as the causative agent for secondary bacterial pneumonia after seasonal influenza,but another very common etiologic bacterium is Streptococcus pneumonia. The patients have a classic influenza disease, followed by an improvement period lasting for maximum 2 weeks.The recurrence of the symptoms such as fever, productive cough, and dyspnea and findings of new consolidations in chest imaging can be found in involved patients. Accordingly, a biphasic pattern of signs and symptoms in influenza-labeled patients should be considered as secondary superimposed bacterial pneumonia.

Non-pulmonary complications In addition to its respiratory effects, the virus can exert effects on other body systems such as the musculoskeletal, cardiac, and neurologic systems. Some of the extrapulmonary symptoms include: Myocarditis (inflammation of heart muscle) Pericarditis (inflammation of saclike covering of the heart) Stroke Encephalopathy (brain damage due to virus, bacteria, or toxins) Mild myositis (weak, painful or aching muscles) Myoglobinuria (excessive protein called myoglobin in urine) Other rare complications such as Guillain–Barré syndrome (a rare disorder in which your body’s immune system attacks your nerves. Weakness and tingling in your extremities) Acute liver failure Reye syndrome Did you know? According to the World Health Organization (WHO), globally, on an average, around 3-5 million people suffer from the flu every year. Furthermore, the flu causes around 2,90,000 – 6,50,000 deaths every year. Read about 5 ways to stay “SAFE” this flu season. Click Now! Alternative Therapies For Influenza

Influenza is contagious and can cause mild to severe illness. Alternative therapy along with medications that can help in fighting the flu and relieve the symptoms include:

Natural therapy There are a dozen things to do while the individual has the flu, but the age-old natural remedies can never go wrong. Here is a list of natural ingredients that can help:

1. Garlic (Lahsun) Garlic provides many health benefits like enhancing the immune function and decreasing the severity of flu.
2. Ginger (Adrak) Ginger is widely used in herbal medicine and as a well known home remedy to beat nausea. Adding ginger to the tea can soothe the throat as well.
3. Herbal tea An herbal tea may help your body fight off the flu virus. A hot herbal drink is also soothing to the throat and sinuses.
4. Honey (Shahad) There are numerous benefits of honey-like antibacterial properties, stimulating the immune system, relieving seasonal allergy, and helping in suppressing cough in children.
5. Turmeric (Haldi) It helps the body to naturally cleanse the respiratory tract, and helps fight the infection and relieves direct impact of cold and flu due to its anti-inflammatory properties.
6. Spices Certain spices, such as pepper and horseradish, can help break up congestion and help breathe better.
7. Yogurt (Dahi) Yogurt with live cultures not only can help soothe a sore throat but can also boost the immune system. Living With Influenza

People with flu are most contagious in the first 3-4 days after their illness begins. Some otherwise healthy adults may be able to infect others beginning 1 day before symptoms develop and up to 5 to 7 days after becoming sick. Here are a few tips to follow during the sickness to prevent the spread and as well as get better: Maintain personal hygiene Always cover nose and mouth while sneezing Maintain social distancing Wash the hands regularly Rest well Have adequate fluids Take steam inhalations 2-3 times a day Stay warm and cozy Avoid cold items Drink hot soups and broths Apply vapor rubs or essential oils on the nose, throat and chest. Eat well balanced and nutritious meals. Every person is different and so are the nutritional requirements. Read about some dietary guidelines that you should follow for a proper balanced diet. Click To Read!

Frequently Asked Questions What is the vaccine for influenza? Are seasonal influenza (flu) vaccines safe? How long does influenza last? When is the best time to get flu vaccination? Is the BRAT diet recommended for influenza? References Moghadami M. A Narrative Review of Influenza: A Seasonal and Pandemic Disease. Iran J Med Sci. 2017. Chow EJ, Doyle JD, Uyeki TM. Influenza virus-related critical illness: prevention, diagnosis, treatment. Crit Care. 2019;23(1):214. Published 2019 Jun 12. Keiko, Mitamuraa, Masahiko, et al. Clinical usefulness of a rapid molecular assay, ID NOW™ influenza A & B 2, in adults. Volume 27, Issue 3, March 2021. Overview of Influenza Testing Methods. Influenza (Flu). Centers for Disease Control and Prevention. Aug 2020. Ask the expert: Influenza Q&A. Influenza (seasonal). World Health Organization. Nov 2018. Burden. Flu (Influenza). National Foundation for Infectious Diseases. Jan 2022. What is the flu? Flu (Influenza). Nemours Kids Health. Sep 2021. Siddharth V, Goyal V, Koushal VK. Clinical-Epidemiological Profile of Influenza A H1N1 Cases at a Tertiary Care Institute of India. Indian J Community Med. 2012 Oct.

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Insomnia Also known as: Sleeplessness, Sleep deprivation, Lack of sleep and Trouble sleeping Overview In simple terms, insomnia is characterized by dissatisfaction with sleep quantity or quality. It is associated with difficulty falling asleep, frequent nighttime awakenings with difficulty returning to sleep and waking up earlier in the morning than desired.

The immediate effects of insomnia include poor performance, daytime sleepiness, and fatigue, while the long term complications include poor immunity, indigestion, forgetfulness, risk of heart diseases, anxiety, depression, vision disturbances and even premature mortality.

Hence, timely management of insomnia is of utmost importance. Acute or short term insomnia will often go away on its own following home-based interventions. However, chronic or long term insomnia may require making changes in sleep habits, taking prescribed medications, doing relaxation exercises, and treating the underlying condition that is causing insomnia. 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 Mimicking Conditions Sleep apnea Obstructive sleep apnea (OSA) Depression Restless legs syndrome Jet lag disorder Post traumatic stress disorder (PTSD) Anxiety disorder Bipolar disorder Alcoholism Hyperthyroidism Chronic obstructive pulmonary disorder (COPD) Necessary health tests/imaging Polysomnography Blood tests Imaging tests like MRI and CT scan Sleep record tests Wrist actigraphy Sleep quality tests Treatment Cognitive behavioral therapy (CBT) Benzodiazepines: Alprazolam, Lorazepam & Clonazepam Barbiturates: Phenobarbitone & Thiopentone sodium (Z) drugs: Zolpidem, Zopiclone & Zaleplon Heterocyclic antidepressants: Trazodone & Amitriptyline Melatonin receptor agonists: Ramelton & Agomelatine Orexin pathway Inhibitors: Suvorexant Specialists to consult Sleep specialist Neurologist Psychiatrist Psychologist Symptoms Of Insomnia

The symptoms of insomnia include: Difficulty falling asleep Difficulty staying asleep Getting up too early Problems in day to day functioning due to insufficient sleep Problems with concentration and memory Tiredness and sleepiness during day time Problems with work, family, and social life Irritability, grumpiness, mood swings, and anxiety Increased errors or accidents Causes Of Insomnia

To know the causes, it is important to understand the basics of sleep. Several structures within the brain are involved with sleep mechanisms. Two internal biological mechanisms – circadian rhythm and homeostasis – work together to regulate when you are awake and asleep. One of the key hormones responsible for maintenance of the sleep wake cycle is melatonin, which is secreted by the pineal gland in our body.

Circadian rhythms Circadian rhythm influences many functions from daily fluctuations in wakefulness to body temperature, metabolism, and release of hormones. It controls the cause of being sleepy at night and the tendency to wake in the morning without an alarm. The body’s biological clock, which is based on a roughly 24-hour day, controls most circadian rhythms. Circadian rhythms synchronize with environmental cues (light and temperature) about the actual time of day, but they continue even in the absence of cues as they are not driven by the environment.

Sleep-wake homeostasis It keeps track of your need for sleep. The homeostatic sleep drive reminds the body to sleep after a certain time and regulates sleep intensity. This sleep drive gets stronger every hour you are awake and causes you to sleep longer and more deeply after a period of sleep deprivation. Factors that influence your sleep-wake needs include medical conditions, medications, stress, sleep environment, and what you eat and drink. Types Of Insomnia

The type of insomnia one experiences has a lot to do with the underlying causes of insomnia.

Acute or short-term insomnia It is having problems with sleep only for a brief period of time. This could be due to: Stress caused by a painful event in life such as loss of job, death of a loved one, and divorce Worry before an exam Anxiety before an interview Pain or uneasiness due to an illness Travel that causes jet lag Unfamiliar surroundings like sleeping in a hotel or a new home Uncomfortable bed Disturbances due to noise and light Occupational night shifts

Chronic or long-term insomnia It happens when you have trouble falling asleep for at least 3 days in a week for 3 consecutive months. It may occur due to: Stress Parkinson’s disease Alzheimer’s disease Depression Mania or bipolar disorder Post traumatic disorder Drug abuse Alcohol intake Heavy smoking Obstructive sleep apnea Poor sleep habits Medical conditions like asthma & heart failure Myth: Snoring during sleep is quite normal Fact: Snoring could be a sign of an underlying condition known as obstructive sleep apnea and is associated with several medical problems such as cardiovascular diseases and diabetes. This usually means that something is affecting your breathing during sleep. Snoring can occur in kids as well as adults. Here are more myths and facts about sleep. Click Here To Read! Risk Factors For Insomnia

Almost everyone might have experienced difficulty in sleeping at one point in their life. However, your risk of suffering insomnia is high, if you: Are a woman due to hormonal changes during periods and pregnancy Are above 60 years of age as with age changes in sleep patterns occur Have a chronic health condition which can impact your physical as well as mental health Are taking certain medications such as steroids, decongestants, and antihypertensives which risk of sleeping problems as a side-effect Are stressed due to family matters, job pressure or any other triggers of stress Have an irregular lifestyle pattern such as night shifts, poor sleep environment, exercising or use of devices close to bedtime Excessive use of stimulants like coffee or tea especially during the evening or close to bed can can interfere with your sleep schedule Alcohol consumption may help you fall asleep, but when consumed in excess, it prevents deeper stages of sleep and often causes awakening in the middle of the night and hence deteriorates the sleep quality Diagnosis Of Insomnia

The diagnosis of insomnia includes taking an extensive history of the patient that includes questions on: Duration of sleep during night time Daytime napping, if any Frequency of having difficulty in sleeping Medical condition, if any Any stressful event in the recent past

A doctor may conduct a few tests such as:

1. Blood tests Tests for thyroid disorders, anemia (low hemoglobin), and uremia (high uric acid levels) are recommended to rule out any underlying health problems.
2. Imaging tests These are recommended to know if there are any problems with the brain or nerve problems that may be responsible for problems with sleep. Imaging tests such as CT and MRI scan are advised, in some cases.
3. Sleep record tests (sleep log) Sleep record over a period of 2 weeks to know the time at which a patient falls asleep, the duration of sleep in the daytime as well as night time. The patient may be asked to record these in a diary.
4. Wrist actigraphy It is to detect movements during sleep. A device called actigraphy is worn on the wrist during sleeping. It records body movements and can help distinguish wakefulness from sleep.
5. Sleep quality tests These tests are done to measure the quality of sleep such as the insomnia severity index or Pittsburgh sleep quality index.
6. Polysomnography Polysomnography is done, if the cause of your insomnia isn’t clear or you have signs of another sleep disorder such as sleep apnea or restless legs syndrome. It is used to record a set of parameters like brain waves, heart rate, breathing, oxygen levels, and eye and leg movements during sleep. You may need to spend a night at a sleep center for this test. Celebs affected Shahid Kapoor Bollywood actor Shahid Kapoor spoke about being an insomniac during a promotional activity of his film Shaandar in 2015. George Clooney In 2012 during an interview, American actor and filmmaker George Clooney, had revealed that he routinely had a tough time getting asleep. Prevention Of Insomnia To prevent insomnia, you need to have a good night’s sleep. Here are a few simple and effective habits that you can adapt to ensure that you get a sound sleep. Maintain a sleep schedule and follow sleep hygiene guidelines. This includes sleeping and waking up at the same time everyday. Get early morning sunlight. Spending 15-30 minutes in sunlight keeps the body’s biological clock in order. Stay active during the day as a sedentary lifestyle can hamper a good night’s sleep. Limit daytime naps. Mind what you eat by avoiding large meals and beverages before bedtime. Switch off the television set and computers two hours prior to sleep time. The light from the screen interferes with the sleep cycle. Discourage use of tablets and smartphones on bed as the blue light from these gadgets interferes with the release of melatonin or the sleep hormone. Avoid intake of caffeine, nicotine, and alcohol before sleeping. Create a relaxing pre-bedtime ritual such as taking a warm bath, reading or listening to soft music. Sleeping in complete darkness can help you to get rid of night lights and any other light coming from outside. This helps in secreting melatonin and promoting sound sleep. Read about daytime habits that can prevent insomnia and improve your sleep! Click Here!

Specialist To Visit

If you face any difficulty in falling asleep at night or if you have been suffering from any chronic health problem that is affecting your sleep patterns, then it is wise to consult a doctor at the earliest.

Although, your general physician is the first doctor you may need to consult to know the cause of insomnia, other specialists who can help in the diagnosis and treatment of insomnia and its related health complications are: Sleep specialist Neurologist Psychiatrist Psychologist Consult India’s best doctors online. Click Here!

Treatment Of Insomnia

Treatment of insomnia includes making changes in sleep habits, taking medicines, doing relaxation exercises, and treating the underlying condition that causes insomnia.

1. Cognitive behavioral therapy Cognitive behavioral therapy for insomnia (CBT-I) can help you control or eliminate negative thoughts and actions that keep you awake and is generally recommended as the first line of treatment for people with insomnia. Typically, CBT-I is equally or more effective than sleep medications.

The cognitive part of CBT-I teaches you to recognize and change beliefs that affect your ability to sleep while the behavioral part of CBT-I helps you develop good sleep habits and avoid behaviors that keep you from sleeping well.

1. Medications
2. Benzodiazepines It inhibits the reticular activating system (RAS) center, also known as awakening center, thereby inducing sleep. Benzodiazepines carry a risk of addiction and abuse, especially in patients with history of alcohol or sedative abuse, so medical supervision is advisable. Some of the common examples of this class of drugs include: Alprazolam Lorazepam Clonazepam
3. Barbiturates These drugs act on the GABA receptor thereby aiding in sleep. It causes long term changes thereby ensuring that the effect of the drug lasts for a long time. Examples include: Thiopentone sodium Methohexitone Phenobarbitone
   1. Drugs These drugs are basically newer drugs of benzodiazepine agonist class, however they are relatively more specific as these act on alpha 1 subunit of GABA-A receptor. These are recommended for early phase insomnia, late phase insomnia and middle of night awakening problems. The medications that belong to this group include: Zolpidem Zopiclone Zaleplon
4. Heterocyclic antidepressants These are the most commonly prescribed alternatives to benzodiazepine receptor agonists due to their lack of abuse potential and lower cost. The common examples include: Trazodone Amitriptyline
5. Melatonin receptor agonists As the name suggests, these drugs act on the melatonin receptor to include sleep. These drugs are mostly recommended for people with sleep cycle disorder (people who sleep at any time other than the actual sleeping time), shift workers, and insomnia due to jet lag. Some of the common drugs include: Ramelton Agomelatine
6. Orexin pathway inhibitors These drugs inhibit the chemical orexin, which is known to keep the RAS center active. Suvorexant is a commonly used drug that belongs to this class.
7. Antihistamines Antihistamines such as diphenhydramine are the primary active ingredients in the most over-the-counter sleep aids. Some of the side effects include dry mouth and constipation.

Do’s and Don’ts when using sleeping pills Never mix sleeping pills with alcohol or other sedative drugs. Always consult your doctor prior to taking any sleeping pill as most of these medicines have abuse potential. Don’t take a second dose in the middle of the night. Start with the lowest recommended dose. Avoid frequent use of sleeping pills to avoid dependency and lower its side-effects. Never drive a car or operate machinery after taking a sleeping pill. Carefully read the package insert for any potential side effects and drug interactions. Note: Medications for insomnia may increase the risk of injurious falls and confusion in elderly. Hence, they should be taken cautiously in the lowest effective dose and under strict medical supervision. Home-care For Insomnia

Your need for sleep and your sleep patterns change as you age but this varies significantly across individuals of the same age. There is no magic “number of sleep hours” that works for everybody of the same age. Babies initially sleep as much as 16 to 18 hours per day, which may boost growth and development (especially of the brain). School-aged children and teens on an average need about 9.5 hours of sleep per night. Most adults need 7-9 hours of sleep a night but after age 60, nighttime sleep tends to be shorter, lighter, and interrupted by multiple awakenings.  
Poor sleep habits are one of the common causes of insomnia. Here are 8 effective ways to improve your child’s sleeping habits.

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Complications Of Insomnia

Sleep problems are associated with short and long-term effects on health and well-being. The immediate effects include poor performance, daytime sleepiness, and fatigue. The long term complications caused due to sleep deprivation include premature mortality, cardiovascular disease, hypertension, obesity, diabetes, impaired glucose tolerance, and psychiatric disorders such as anxiety and depression.

Some of the common effects of sleep deprivation include:

1. Accidents Fatal road accidents are caused due to sleepiness or driver fatigue.
2. Heart disease Insomnia and obstructive sleep apnoea have also been linked to higher rates of hypertension. Moreover, sleep loss can affect inflammatory markers, which in turn can increase the risk of heart disease. Studies have shown that inflammatory responses are increased in people with obstructive sleep apnoea.
3. Obesity The role of obesity and sleep loss is bidirectional. The prevalence of obstructive sleep apnoea is over double among the obese. It is reported that 3–5% of the overall proportion of obesity in adults could be attributable to short sleep.
4. Diabetes Sleep restriction and poor quality of sleep are linked to increased risk of diabetes. Lack of sleep is linked to glucose dysregulation and an increase in hunger and appetite via hormonal imbalance. It causes down-regulation of the satiety hormone, leptin, and up-regulation of the appetite-stimulating hormone, ghrelin.
5. Stress & anxiety Lack of sleep can lead to mental disorders such as stress and anxiety. However, depression is also one of the most prevalent of the conditions associated with troubled sleep. Poor sleep can up the levels of stress hormones and in the long run, can affect mental health. Insomnia can negatively affect work performance, impair decision-making, damage relationships and decline overall quality of life.
6. Poor performance A direct way that sleep and school or job performance are connected is through effects on mental functioning. Some known problems associated with lack of sleep include decreased attention. The ability to concentrate is vital to learning and academic achievement but insufficient sleep reduces attention and focus.

Here are a few tips that will help you get a goodnight’s sleep and avoid complications of insomnia. Check Here! Alternative Therapies For Insomnia

If you are one of those who has problems falling asleep, read on to know about some of the best foods to have before you hit the bed.

1. Cherries Cherries contain melatonin, which is a sleep-regulating hormone. A study shows that drinking 200 ml tart cherry juice twice a day helps in increasing sleep quality and duration. This is an excellent remedy for people suffering from insomnia. Drink a glass of cherry juice before going to bed. You can add some water, if you do not like its taste.
2. Kiwis Kiwis have high levels of antioxidants and serotonin, a hormone that aids in sleep. As low levels of serotonin can lead to insomnia, munching two kiwis an hour before sleep can help you to sleep better.
3. Walnuts (Akhrot) Like cherries, walnuts are also a source of melatonin. Eating a handful of walnuts will help you sail through the night. Since nuts are high in calories, just having 20-30 gms of it would be sufficient.
4. Banana (Kela) They are a rich source of potassium and magnesium which acts as muscle relaxing agents. In addition, they contain amino acid tryptophan which the body converts to serotonin. Plus, they are a source of carbohydrates which will make you feel sleepy as well.
5. Leafy green vegetables Leafy green vegetables such as turnip green and spinach have calcium which is used by the brain to produce sleep-inducing hormone melatonin. Try a leafy vegetable salad for dinner.
6. Almond butter Almond butter is a source of magnesium, low levels of which are related to insomnia. Munch a whole grain toast coated with almond butter as a pre-sleep snack.
7. Sleep-inducing teas Teas like chamomile (babunah ke phul) tea, passion flower tea, magnolia bark tea, peppermint (pudina) tea, and lavender tea can promote good sleep.

However, remember not to eat too much just before trying to sleep. Scheduling your dinner time in the evenings may help you sleep better. Doing regular light exercise can help you get a good sleep. Try yoga, meditation or breathing exercises to relax.

Supplements for insomnia There are many dietary and herbal supplements available in the market that are known for their sleep-promoting effects. As these supplements can interfere with other medications and vitamin supplements, it is best to talk to your doctor before taking them. The two common supplements for insomnia are:

Melatonin: It is a hormone that helps to regulate the sleep-wake cycle and is known to be effective for people who are night owls (who go to bed and wake up late). It is available as an over-the-counter (OTC) supplement.

Valerian: It is a herbal supplement which is known to have mild sedative (sleep-inducing) effects. There are a wide range of valerian supplements available. Pick the one that best suits your needs. Did you know? Sleeping on the stomach can cause serious damage to the muscles of the neck and spine. Here’s more about the worst and the best sleeping positions to help you sleep better. Click Here! Living With Insomnia

Insomnia can cause difficulty in falling asleep or can wake you up in the middle of the night. Here are a few tips to deal with these issues and improve your condition.

A. What to do when you have difficulty falling asleep

1. Maintain a sleep diary A sleep diary can pinpoint day and nighttime habits that may contribute to your problems at night. Your sleep diary should include: What time you went to bed and woke up. Total sleep hours and perceived quality of your sleep. A record of time you spent awake and what you did ( for example: got up, had a glass of milk, and meditate). Type and amount of food, liquids, caffeine, or alcohol you consumed before bed, and time of consumption. Your feelings and moods before bed (happiness, sadness, stress and anxiety). Any drugs or medications taken including dose and time of consumption.
2. Create a better sleep environment A quiet, comfortable sleep environment and a relaxing bedtime routine can make a big difference in improving the quality of your sleep. Make sure your bedroom is quiet, dark, and cool and also invest in proper mattress, foam toppers, and pillows. Try using a sound machine or earplugs to mask outside noise and use blackout curtains or an eye mask to block out light. Keep your window open for proper ventilation and to keep the room cool Stick to a regular sleep schedule such as going to bed and getting up at the same time every day, including weekends. Turn off all screens at least an hour before bed as electronic devices emit a blue light that disrupts your body’s production of melatonin and combats sleepiness. Avoid stimulating activity and stressful situations before bedtime such as checking messages on social media, discussions or arguments, or catching up on work. Avoid naps during the day as it can make it more difficult to sleep at night. However, power naps of 30 minutes when tired, especially in the afternoon, can be of great help.
3. Avoid certain things before going to bed These include: Drinking too many liquids or alcohol just before bed. Big evening meals and spicy or acidic foods that can promote acidity or uneasiness while sleeping. Drinking caffeinated beverages at least six hours before bedtime.
4. Say NO to negative thoughts and worries The more trouble you have with sleep, the more it starts to invade your thoughts. These self-destructing thoughts can further fuel insomnia. For example, instead of thinking “I’m never going to be able to sleep well. It’s out of my control,”think of a self promoting comeback like, “insomnia can be cured and if I stop worrying so much and focus on positive solutions, I can beat it.”
5. Make your bed your buddy Use the bedroom only for sleeping (and sex) but not for work, watch TV or scroll through your phone at night. Do not hang wall clocks in the bedroom as watching the time tick as you count sheep in bed can further make you anxious about getting tired the next day, adding fuel to your worries. Instead of tossing and turning in bed, leave the bedroom, and do something relaxing like taking a stroll on your balcony or drinking a cup of herbal tea.
6. What to do if you wake up in the middle of the night Many people with insomnia are able to fall asleep at bedtime, but then wake up in the middle of the night. And once they wake up, they find it difficult to go back to sleep, often lying awake for hours. If this is your problem, then here are a few tips that can help you!
7. Do not stress too much As stressing over not being able to fall asleep at night can further activate your brain and elevate stress levels making you stay awake at night. Instead, taking deep breaths or closing your eyes and concentrating on your breathing can help to ease stress and induce sleep. Ways to do abdominal breathing: Close your eyes Take deep, slow breaths Make sure each breath is deeper than the last Breathe in through your nose and out through your mouth
8. Try relaxation techniques If you find it hard to fall back to sleep, try a relaxation technique such as visualization or meditation on your bed. This can help you to rejuvenate your mind and body and may help you sleep. Steps for mindfulness meditation: Sit or lie quietly Focus on your natural breathing Allow thoughts and emotions to come and go without judgment As you do so, always focus on your breath and body
9. Say yes to simple exercises Simple exercises such as rubbing your ears or rolling your eyes can help promote calmness and relaxation, thereby helping you to sleep better.
10. Get out of your bedroom If you have been lying on your bed for more than 30 minutes, then get out of your bedroom and try reading a book or drinking herbal teas. Do not watch TV or check your phone.
11. Postpone your worries for the next day Whether you feel anxious about something or have an idea for your presentation, then make a note of it on paper and go back to sleep. Leave your ideas or worries for the next day and get a good night’s sleep. Frequently Asked Questions What is the main cause of insomnia? Will insomnia go away? What is sleep anxiety? Is insomnia a mental illness? Why can’t I sleep even though I’m tired? References Ferrie JE, Kumari M, Salo P, Singh-Manoux A, Kivimäki M. Sleep epidemiology–a rapidly growing field. Int J Epidemiol. 2011 Dec;40(6):1431-7. Bhaskar S, Hemavathy D, Prasad S. Prevalence of chronic insomnia in adult patients and its correlation with medical comorbidities. J Family Med Prim Care. 2016 Oct-Dec;5(4):780-784. Shah N, Bang A, Bhagat A. Indian research on sleep disorders. Indian J Psychiatry. 2010 Jan;52(Suppl 1):S255-9. Mondal G, Bajaj V, Goyal BL, Mukherjee N. Prevalence of sleep disorders and severity of insomnia in psychiatric outpatients attending a tertiary level mental health care facility in Punjab, India. Asian J Psychiatr. 2018 Feb;32:8-13. Gupta R, Das S, Gujar K, Mishra KK, Gaur N, Majid A. Clinical Practice Guidelines for Sleep Disorders. Indian J Psychiatry. 2017 Jan;59(Suppl 1):S116-S138. Stranges S, Tigbe W, Gómez-Olivé FX, Thorogood M, Kandala NB. Sleep problems: an emerging global epidemic? Findings from the INDEPTH WHO-SAGE study among more than 40,000 older adults from 8 countries across Africa and Asia. Sleep. 2012 Aug 1;35(8):1173-81. National Institute of Health. Insomnia | National Heart, Lung, and Blood Institute (NHLBI) [Internet]. Nhlbi.nih.gov. 2018 [cited 5 October 2018]. Available from: Jehan S, Auguste E, Hussain M, Pandi-Perumal S, Brzezinski A, Gupta R et al. Sleep and Premenstrual Syndrome. Journal of Sleep Medicine and Disorders [Internet]. 2016 [cited 5 October 2018];3(5). Available from: Roth T, Roehrs T. Insomnia: Epidemiology, characteristics, and consequences. Clinical Cornerstone. 2003;5(3):5-15. Johnson E, Roth T, Schultz L, Breslau N. Epidemiology of DSM-IV Insomnia in Adolescence: Lifetime Prevalence, Chronicity, and an Emergent Gender Difference. PEDIATRICS. 2006;117(2). Nowakowski S, Meers J, Heimbach E. Sleep and Women’s Health. Sleep Med Res. 2013;4(1):1-22. Kaur H, Spurling BC, Bollu PC. Chronic Insomnia. [Updated 2021 Jul 17]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Ramakrishnan K, Scheid DC. Treatment options for insomnia. Am Fam Physician. 2007 Aug 15;76(4):517-26.

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Iron deficiency anemia Also known as Greensickness and Chlorosis Overview Iron deficiency anemia, as the name suggests, is a type of anemia in which there is not enough iron present in the blood. It is the most common cause of anemia worldwide. As iron is needed for the production of hemoglobin, the molecule in your blood that carries oxygen, lack of this mineral is related to decreased oxygen delivery to the entire body. This can lead to symptoms such as pale or yellow skin, shortness of breath, chest pain, rapid heartbeat, unexplained weakness, and brittle nails or hair loss.

Iron deficiency anemia is very common, especially among women, which include menstruating women, pregnant women and breastfeeding women. It is also quite common in people who have undergone major surgery or physical trauma, people with peptic ulcer disease, vegetarians and not eating a diet rich in iron.

The condition is diagnosed by blood tests that include complete blood tests (CBC), low hemoglobin (Hg) and hematocrit (Hct), low ferritin, low serum iron, and low iron saturation. Iron deficiency can be treated by taking medicinal iron in the form of multivitamins until the deficiency is corrected.

In severe cases of iron deficiency anemia, red blood cell transfusions may be given that are actively bleeding or have symptoms such as chest pain, shortness of breath, or weakness. Transfusions are only a temporary cure to replace deficient red blood cells and will not completely correct the iron deficiency. Key Facts Usually seen in Adults between 20 to 35 years of age Pregnant women Lactating women Gender affected Both men and women but more common in women Body part(s) involved Red blood cells Blood Mimicking Conditions Chronic fatigue syndrome Thrombotic thrombocytopenic purpura Plummer vinson syndrome Lead poisoning Hookworm infestation Thalassemia minor Sideroblastic anemia Anemia of chronic disease Necessary health tests/imaging Complete blood count (CBC) Hemoglobin count Serum Iron (Fe) Total iron-binding capacity (TIBC) Peripheral smear Ferritin test Vitamin B12 test Upper and lower endoscopy Fecal occult blood test (FOBT) Treatment Iron-rich diet Iron supplements: Ferrous ascorbate with folic acid Intravenous iron infusion: Iron sucrose, Iron dextran & Ferric gluconate Blood transfusion Specialists to consult General physician Hematologist Symptoms Of Iron Deficiency Anemia Iron deficiency anemia can range from mild to severe. People with mild or moderate iron-deficiency anemia may not show any signs or symptoms. But, as the anemia generally worsens the condition becomes more severe.

A few symptoms of iron-deficiency anemia are: Unexplained fatigue or lack of energy Pale yellow skin Shortness of breath or chest pain Rapid heartbeat Generalized weakness Brittle nails Hair loss Sore or swollen tongue Tingling or crawling feeling in the legs Dysphagia (difficulty in swallowing) due to formation of esophageal webs (Plummer–Vinson syndrome) Brittle nails Irritability Pica (desire to eat peculiar substances such as dirt or ice) Headache Enlarged spleen Did you know? Anemia is the most common nutritional disorder across the world. It is known to affect an estimated 2.36 billion individuals worldwide with a high prevalence in women and children. Read more about symptoms of anemia that you might be ignoring. Click To Read! Causes Of Iron Deficiency Anemia

The main causes of iron deficiency anemia include:

Diet low in iron Iron is obtained from foods in our diet; however, only 1 mg of iron is absorbed for every 10 to 20 mg of iron ingested. Examples of iron-rich foods include meat, eggs, leafy green vegetables, and iron-fortified foods. If a person is unable to obtain a balanced iron-rich diet, he/she may suffer from some degree of iron-deficiency anemia.

Loss of blood Blood contains iron within red blood cells. So if a person loses blood, he or she will lose some iron. Iron deficiency is very common, especially among women having heavy periods as blood is lost during menstruation. Slowly, chronic blood loss within the body such as from a peptic ulcer, a hiatus hernia, a colon polyp, or colorectal cancer can also cause iron-deficiency anemia. It can also be due to conditions like hemorrhoids, gastritis (inflammation of the stomach), and cancer.

Inability to absorb iron Iron from food is absorbed into the bloodstream in the small intestine. An intestinal disorder such as celiac disease, which affects the intestine’s ability to absorb nutrients from digested food, can lead to iron-deficiency anemia, if a part of the small intestine has been bypassed or removed surgically. In other cases, children drink more than 16 to 24 ounces a day of cow’s milk (the milk contains little iron, but it can also decrease absorption of iron and irritate the intestinal lining causing chronic blood loss).

Pregnancy An increased iron requirement and increased red blood cell production are required when the body is going through changes, during pregnancy iron deficiency anemia occurs in many pregnant women because iron stores need to serve their increased blood volume as well as be a source of hemoglobin for the developing fetus.

Endometriosis If you have endometriosis, you may have heavy blood loss during menstrual periods. You may not even know you have endometriosis because it occurs hidden in the abdominal or pelvic area outside of the uterus.

Parasitic disease The leading cause of iron-deficiency anemia worldwide is a parasitic disease known as helminthiasis caused by infestation with parasitic worms (helminths); specifically, hookworms.

Destruction of red blood cells (haemolysis) Inherited conditions such as sickle cell anemia and thalassemia; stressors such as infections, drugs, snake or spider venom; or certain foods can cause destruction of RBCs. Intravascular hemolysis is a condition in which red blood cells break down in the bloodstream, releasing iron that is then lost in the urine. This sometimes occurs in people who engage in vigorous exercise, particularly jogging. This condition can also be seen in other conditions including damaged heart valves or rare disorders such as thrombotic thrombocytopenic purpura (TTP) or diffuse intravascular hemolysis (DIC).

Gastrointestinal tract abnormalities Blood loss from the gastrointestinal tract due to gastritis (inflammation of the stomach), esophagitis (inflammation of the esophagus), ulcers in the stomach or bowel, hemorrhoids, angiodysplasia, infections such as diverticulitis, or tumors in the esophagus, stomach, small bowel, or colon. Increased demand by the body Chronic kidney disease (CKD) patients receiving I/V erythropoietin therapy have increased iron demand. Similarly, iron demand is increased during rapid growth in infancy and adolescence.

Genetics Some conditions — like celiac disease — that can make it difficult to absorb enough iron are passed down through families. There are also genetic conditions or mutations that can add to the problem. One of these is the TMRPSS6 mutation. This mutation causes your body to make too much hepcidin. Hepcidin is a hormone that can block your intestine from absorbing iron.

Other genetic conditions such as Von Willebrand disease and hemophilia may contribute to anemia by causing abnormal bleeding.

Anemia is a common health problem in children. Here’s more about iron deficiency anemia in children. Click Here! Risk Factors For Iron Deficiency Anemia

Iron deficiency is very common, especially among women and in people who have a diet that is low in iron. Menstruating women, particularly if menstrual periods are heavy People who have undergone major surgery Vegetarians, vegans, and other people whose diets do not include iron-rich foods Pregnant or breastfeeding women or those who have recently given birth Athletes, especially young females, are at risk for iron deficiency Frequent blood donation Kidney transplant recipients Bariatric surgery (procedure of the digestive system to promote weight-loss in people with severe obesity) patients Did you know? According to the National Family Health Survey (NFHS-4) for the years 2015-16, iron deficiency in India is rampant. It was reported that around 55.9% of children in the age group of six months to less than a year are anemic. Most cases of low hemoglobin count can be treated with simple lifestyle changes like eating a healthy and balanced diet and regular exercise. Read about tips to increase hemoglobin count. Tap Here! Diagnosis Of Iron Deficiency Anemia 1. Physical examination and medical history Iron-deficiency anemia may be suspected from general findings on a complete medical history and physical examination, such as complaints of getting tired easily, abnormal paleness or yellow-colored skin, or a fast heartbeat (tachycardia). Checking the medical and genetic background of the suspected person.

A thorough medical history is important to the diagnosis of iron deficiency anemia. The history can help to differentiate common causes of the condition such as menstruation in women or the presence of blood in the stool. Travel history to areas in which hookworms and whipworms are endemic may also be helpful in guiding certain stool tests for parasites or their eggs.

1. Lab tests Complete blood count (CBC): A CBC test measures many blood-related issues. It measures the red blood cells (RBC) count, white blood cells (WBC), hemoglobin, hematocrit, and platelets. A low RBC count may be a sign of iron deficiency anemia. Hemoglobin count: Iron-deficiency anemia is usually discovered during a medical examination through a blood test that measures the amount of hemoglobin (number of red blood cells) present. Serum iron (Fe): It is a laboratory test that measures the amount of circulating iron that is bound majorly to transferrin and serum ferritin. The main aim of the iron-serum test is to examine the iron present in the blood. Low levels of serum iron may indicate iron deficiency. Total iron-binding capacity (TIBC): A TIBC test measures the blood’s ability to attach itself to iron and transport it around the body. If TIBC levels are high, it may indicate low iron in the blood due to iron deficiency anemia. Peripheral smear: Examination of blood smear under a microscope can help detect iron deficiency anemia. While examining, the RBCs may appear smaller and paler than usual. Ferritin test: Ferritin is an iron-containing protein in the blood. Measuring the amount of ferritin in the blood helps in understanding the iron reserve in the blood. Low levels of ferritin in the blood can be indicative of iron deficiency. Red cell protoporphyrin levels: Protoporphyrin is an intermediate in the pathway in the production of hemoglobin. Under conditions in which production of hemoglobin is impaired, protoporphyrin (an organic compound that plays an important role in living organisms as a precursor to heme) accumulates within the red cell. Normal values are <30 µg/dL and in iron deficiency >100 µg/dL. Hemoglobin electrophoresis and measurement of hemoglobin A 2 and fetal hemoglobin - to rule out thalassemia.

Sometimes, it is difficult to diagnose the cause of iron deficiency, or your doctor may be concerned that there is a problem other than iron deficiency causing the anemia. In patients such as men, postmenopausal women, or younger women with severe anemia, the doctor may recommend additional testing. These tests may include the following: Upper and lower endoscopy: This test is done to look for abnormalities in the gastrointestinal tract which looks to the stomach, esophagus, and colon. These tests may help rule out a source of blood loss. Fecal occult blood test (FOBT): This test may be useful in identifying patients with iron deficiency anemia who may have gastrointestinal lesions. Occult gastrointestinal bleeding usually is discovered when fecal occult blood test results are positive. Urine routine: Urine-containing blood can be due to some internal bleeding and can be a cause of anemia. Bone marrow aspiration and biopsy: This test is done in very few cases, this test helps diagnose a few types of cancers like leukemia, myeloma, and the diagnosis of anemia. The procedure involves taking a small amount of bone marrow fluid or solid bone marrow tissue (called a core biopsy), to be examined for the number, size, and maturity of blood cells or some abnormal cells. Here’s more about the hemoglobin test & what the results mean.

Celebs affected Selena Gomez In 2011, Selena Gomez was taken to the hospital where she was found to be malnourished, exhausted, and had an iron deficiency anemia. She is doing well now. Angelina Jolie American actress, filmmaker, and humanitarian. Angelina Jolie became very sick in 2010 when she adopted a Vegan lifestyle. Though green leafy vegetables are known for their iron, they are not enough to provide the nourishment her body needs. Prevention Of Iron Deficiency Anemia

When caused by inadequate iron intake and blood loss due to menstruation, iron-deficiency anemia can be prevented by eating a diet high in iron-rich foods. For infants, breast milk or iron-fortified infant formula can be given. Some of the foods rich in iron include: Greens leafy vegetables such as spinach Non-vegetarian food such as lamb, pork, chicken, and beef Iron-fortified dry and instant cereals Seafood such as clams, sardines, shrimp, and oysters Raisins and other dried fruits Did you know? There is a link between iron and Vitamin C. Iron absorption is significantly increased by the presence of Vitamin C, also known as ascorbic acid. Both iron and Vitamin C work together within the body and a major role is played by them in the synthesis of red blood cells. Iron is an important component of hemoglobin, it is found in red blood cells. Read more about Vitamin C rich foods that are easily available and are cost effective. Check Out Now! Specialist To Visit

Sometimes, it is difficult to diagnose the cause of iron deficiency, a general practitioner may be concerned that there is a problem other than iron deficiency causing the anemia. These may include genetic blood disorders including thalassemias in which red blood cells appear small and pale, hemoglobinopathies such as sickle cell disease, and other blood disorders. When the cause of the anemia is not clear, your doctor may refer you to a hematologist, for consultation and further evaluation. General physician Hematologist Hematologist specializes in blood disorders including iron deficiency anemia and helps in managing your iron deficiency as well as any underlying causes.

If you or anyone in your family are facing such issues, seek medical help immediately. Consult Now! Treatment Of Iron Deficiency Anemia

Treatment guidelines from the American College of Physicians (ACP) for adult patients with anemia and iron deficiency include the following: Patients hospitalized with coronary heart disease, with the hemoglobin levels as low as lowered to 7-8 g/dL , red blood cell transfusion strategy is recommended. Agents that stimulate red cell production are not recommended for patients with mild to moderate anemia and either congestive heart failure or coronary heart disease.

Specific treatment for iron-deficiency anemia will be determined by your doctor based on the following: Medical history, genetic history, and age Cause of the anemia Extent of anemia

The treatments consist of the following:

1. Iron-rich diet Eating a diet with iron-rich foods can help treat iron-deficiency anemia. Good sources of iron include the following: Meat such as beef, pork, or lamb, and organ meats such as liver Leafy green members of the cabbage family including broccoli, kale, and turnip Iron-enriched pasta, grains, rice, and cereals Legumes including beans, peas, pinto beans, and black-eyed peas Poultry such as chicken, duck, and turkey
2. Iron supplements These can be taken over several months to increase iron levels in the blood. The amount of iron needed to treat patients with iron deficiency is higher than the amount found in multivitamin supplements. Most people with iron deficiency need 150-200 mg per day of elemental iron (2 to 5 mg of iron per kilogram of body weight per day).

The purpose of oral iron supplementation is to treat your symptoms by increasing the levels of iron and hemoglobin in the body. Examples include folic acid, methylcobalamin, carbonyl iron, ferrous fumarate, ferrous sulfate, and gluconate. It is recommended by some doctors to take Vitamin C (ascorbic acid) including ferrous ascorbate with folic acid, with iron supplements as it improves iron absorption.

The oral iron preparations available are ferrous sulfate, ferrous fumarate, ferrous gluconate, and polysaccharide iron.

Note: You should avoid taking oral iron supplements with milk, tea, coffee, antacids or calcium supplements as these may reduce the absorption of iron.

1. Intravenous iron infusion In some cases, the doctor may recommend intravenous (IV) iron. It may be necessary to treat iron deficiency in patients who do not absorb iron well in the gastrointestinal tract. In the case of patients with severe iron deficiency or chronic blood loss, patients can receive supplemental erythropoietin, a hormone that stimulates blood production, or patients who cannot take oral iron supplements. A few examples of IV infusions are iron sucrose, iron dextran, ferric gluconate, low molecular weight iron dextran, and ferric carboxymaltose.

Feraheme (ferumoxytol injection), a hematinic, was initially approved by the FDA in 2009 to treat iron deficiency anemia in adults with chronic kidney diseases (CKD). In 2018, the FDA expanded the indication for ferumoxytol injection to include all eligible adults with iron deficiency anemia who have an intolerance or unsatisfactory response to oral iron.

Ferric derisomaltose (monoferric) was approved by the FDA in January 2020 for iron deficiency anemia in adults who have an intolerance to oral iron or have had an unsatisfactory response to oral iron.

Note: Large doses of iron can be given at one time using iron dextran. Iron sucrose and ferric gluconate require more frequent doses spread over several weeks.

1. Blood transfusions Red blood cell transfusions may be given to patients with severe iron-deficiency anemia who are actively bleeding or have significant symptoms such as chest pain, shortness of breath, or weakness. Red blood cell transfusions will only provide temporary improvement, it is important to find and treat the cause of anemia.

Watch this video to know more about the symptoms and treatment of iron deficiency anemia.

Home-care For Iron Deficiency Anemia

Home remedies

1. Drumstick Drumsticks are loaded with vitamins A and C, iron, calcium, and magnesium that can help cure anemia. Chop the leaves, blend them, and drink this juice for about a month.
2. Raisins (kismish) and dates (khajur) These dried fruits offer a combination of iron and Vitamin C. This enables the body to quickly and effectively absorb the iron from them.
3. Green vegetables Green veggies like kale, spinach, radish greens, mustard greens, and broccoli. The vegetables contain high amounts of chlorophyll and are a good source of iron and help in treating anemia.
4. Vitamin C rich foods Anemia tends to weaken your immune system and thus, you may be more prone to infections and inflammatory diseases. Fruits like orange, apple, lime, lemon, grapefruit, tangerine, gooseberries, apple, and berries are loaded with Vitamin C and other essential vitamins and minerals that help in the production of RBCs and hemoglobin.
5. Figs (anjeer) Figs are a great source of iron. They are loaded with Vitamin A, folate, and magnesium.
6. Beetroot (Chukandar) It is one of the healthiest and richest sources of iron. Consuming it regularly can help treat and prevent iron deficiency.
7. Shilajit It is an herbal remedy that is useful in gradually increasing iron levels. The use of these herbal remedies for anemia would also ensure proper oxygen supply to all organs and improve their health.

Iron deficiency negatively affects the growth and development of both the mind and body of a child. Here’s an article highlighting the significance, detection, and prevention of iron deficiency in children. Click and Read! Alternate Treatment For Iron Deficiency Anemia

1. Yoga and exercise Doing yoga and exercises three times a week can help improve blood circulation and help the body to feel fresh and prevent from feeling fatigued all the time. However, to reduce stress or pressure on the body, exercise when your condition has improved a bit and you feel stronger.
2. Water therapy Hydrotherapy (that takes advantage of water at different temperatures and pressures) could be an adjuvant treatment for iron deficiency anemia. Specifically, it’s believed that the water could stimulate circulation and, as a result, the production of red blood cells (RBCs).
3. Lifestyle changes Changing the lifestyle can help in curing iron deficiency anemia. Cooking in iron pots is a fine remedy to treat anemia and sitting in sun (sunbathing) for some time ensures an increase of red blood cells in the body because of the increase in blood circulation. Living With Iron Deficiency Anemia

Self management can help in taking care of yourself. It includes: Understanding your condition: Sometimes, iron deficiency anemia can affect the mental health of a person and it can lead to anxiety and depression. Talking to your near and dear ones can eliminate cases of emotional drainage and thus an effective treatment plan. Exercising daily: It increases the blood circulation of the body and frees the mind from tension and stress. Taking your medicine on time: Self helps give a sense of satisfaction to the person that he/she is aware of the condition. Talking with a doctor openly in case of any questions related to the disease: The person having iron deficiency anemia should ask as many questions that come to his mind. Lowering the stress levels: Practicing meditation and yoga helps in eliminating stress and keeps the person happy, Getting adequate sleep: Sleep activates and calms the body and mind. This makes the person feel less fatigued. In this video, Dr. Akta Bajaj clearly mentions about the anemia issues during pregnancy and multiple ways to handle the situation carefully without having side effects in infants.

Frequently Asked Questions What is the normal hemoglobin level for iron deficiency anemia? What causes iron-deficiency anemia in children? What happens if you don’t have enough iron in your blood? Why is iron-deficiency anemia more common in women? What are a few significant symptoms that are visible in the case of iron deficiency anemia? References Stoltzfus RJ. Iron deficiency: global prevalence and consequences. Food Nutr Bull. 2003 Dec;24 Busti F, Campostrini N, Martinelli N, Girelli D. Iron deficiency in the elderly population, revisited in the hepcidin era. Front Pharmacol. 2014 Apr 23 Samal J. Ayurvedic preparations for the management of Iron Deficiency Anemia: A systematic review. Ayu. 2016 Jul-Dec Bansal, Deepak. (2016). Iron Deficiency in India. The Indian Journal of Pediatrics. Warner MJ, Kamran MT. Iron Deficiency Anemia. [Updated 2021 Aug 11]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan Iron Deficiency Anemia. Johns Hopkins Medicine. Patients. Iron Deficiency Anemia. American Society of Hematology. Introduction. Iron Deficiency Anemia. National Health Portal. February 2016. Iron Deficiency Anemia. National heart, lung, and blood institute.

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Irritable bowel syndrome Also known as Spastic colon, Irritable colon, Mucous colitis, and Spastic colitis. Overview

Irritable bowel syndrome (IBS) is a bowel disorder characterized by abdominal pain or discomfort, cramping, food intolerance, stool irregularities, increased gas and bloating.

The exact cause of IBS is not known, however, it is frequently associated with other comorbidities such as pain syndromes, overactive bladder, and migraine and psychiatric conditions such as depression and anxiety. It can present in many ways such as IBS with constipation, IBS with diarrhea, IBS with both diarrhea and constipation.

It is essential for IBS patients to identify their food triggers so that they can avoid them. Increased intake of dietary fiber, drinking plenty of water, avoiding soda, and eating smaller meals is beneficial to most patients in general.

The approach to treating IBS is based on the patient’s predominant symptoms. Treatment comprises dietary and lifestyle modifications, and prescription medications like antidiarrheals, antispasmodics, bulking agents, osmotic laxatives, antidepressants, etc. Key Facts Usually seen in Individuals between 26 to 55 years of age Gender affected Both men and women but more common in women Prevalence Worldwide: 11.2% Mimicking Conditions Carcinoid tumor Celiac disease Colorectal cancer Diverticular disease Gastrointestinal infection Hyperthyroidism/hypothyroidism Inflammatory Bowel disease Ischemic colitis Lactose intolerance Necessary health tests/imaging Rome criteria III (symptoms-based criteria for diagnosis of IBS) Blood tests Stool test Colonoscopy Treatment Diet and lifestyle modifications Medicines: Antidiarrheal- atropine, eluxadoline, loperamide, diphenoxylate, rifaximin Antispasmodic- Hyoscyamine, dicyclomine, pinaverium, peppermint oil, trimebutine Antidepressants- Diazepam, lorazepam, clonazepam Probiotics Mental health therapies- Cognitive behavioral therapy, Gut-directed hypnotherapy, Relaxation therapy Specialists to consult General Physician Gastroenterologists Nutritionist Symptoms Of Irritable bowel syndrome

IBS symptoms and their intensity can vary from person to person. Symptoms often occur after eating a large meal or when you are under stress, and they are often temporarily relieved by having a bowel movement.

Chronic and recurring abdominal pain Constipation followed by diarrhea Gassiness or bloating Abdominal bloating, or the sensation of being full Distention, or swelling of the abdomen Nausea Indigestion Heartburn Vomiting Worsening of pain with food intake and relief with defecation. Mucus in the stool The urge to move your bowels without being able to have a bowel movement

Other Symptoms: Patients with IBS often complaint of anxiety, depression, and tension headaches Some women with IBS notice a link between pain episodes and their menstrual cycle. Types of IBS:

Irritable bowel syndrome has 3 subtypes: 1. IBS with constipation (IBS-C) The perimeters for this include: More than a quarter of your stools are hard or lumpy and Less than a quarter of your stools are loose or watery

1. IBS with diarrhea (IBS-D) The perimeters for this include: More than a quarter of your stools are loose or watery and Less than a quarter of your stools are hard or lumpy
2. Those whose symptoms include both diarrhea and constipation (IBS-M) The perimeters for this include: More than a quarter of your stools are hard or lumpy and More than a quarter of your stools are loose or watery Did you know? People frequently mix up Irritable Bowel Syndrome (IBS) and Inflammatory Bowel Disease (IBD). IBS is a functional gastrointestinal disorder that does not cause inflammation or damage to the intestines. It is a condition that affects the motility and sensitivity of the bowel. Whereas IBD is a chronic inflammatory disorder of the digestive tract that causes inflammation, ulcers, and tissue damage in the lining of the gut. Click Here To know Myths About IBS Causes Of Irritable bowel syndrome

The exact cause of IBS is not known, however, it is frequently associated with other comorbidities such as: 1. Muscle Contractions in the Intestine: As the food passes through the digestive tract, muscles lining the intestinal walls contract. Weak intestinal contractions cause slow food passage and hard, dry stools whereas stronger and longer-lasting contractions result in gas, bloating, and diarrhea. 2. Problems in Nerve Signaling: Poorly coordinated brain-intestine signals can cause your body to overreact to changes in the digestive process, resulting in pain, diarrhea, or constipation. Note: Reduced plasma serotonin levels (a hormone and neurotransmitter that aids in the regulation of GI motility, sensation, and secretion) may be linked to constipation-predominant IBS, whereas increased serotonin release may be linked to diarrhea-predominant IBS. 3. Severe Infection: IBS can develop following a severe bout of diarrhea (gastroenteritis) caused by a bacterial or viral infection. 4. Changes in Gut Microbes: Changes in the bacteria, fungi, or viruses that live in the small intestine are also important in the development of IBS.

Do you want to know how important it is to maintain gut health and how to do it? Watch this video to know the answers from our expert doctors. Tap Here Risk Factors For Irritable bowel syndrome

1. Genetics Genes may play a role in the development of IBS. Many people who have IBS have a first-degree relative (parent, child, or sibling) who also has the condition.
2. Age IBS is more common in people under the age of 50 and is rarely diagnosed after that age. Over the age of 50, your symptoms are more likely to be caused by an organic cause rather than IBS.
3. Gender Females are more likely than males to be diagnosed with IBS. Estrogen therapy, either before or after menopause, is another risk factor for IBS.
4. Stress People who have faced stressful life events, especially in their childhood, are more prone to develop IBS.

To know more about techniques to deal with stress, Click Here 5. Mental health problems If you have anxiety or depression, you may be more prone to developing IBS. The opposite is also true: if you have IBS, you may be more prone to anxiety or depression. Anxiety and depression can exacerbate symptoms in IBD and IBS patients. Consultation with a psychologist or psychiatrist familiar with IBD and IBS can be very helpful in managing these conditions.

Here are 5 effective self-help tips to cope with anxiety. Click to read. 5. History of childhood abuse People with a history of childhood physical or sexual abuse have a higher risk of developing IBS. 6. Other factors Smoking, frequent alcohol consumption, physical or psychological stress, underlying depression, being exposed to antibiotics, contracting food poisoning, obesity, sleep problems, low exercise level, family history of mental illness, etc. can be the precipitating factors for IBS. Do you know Covid-19 can trigger IBS? Studies have shown that COVID-19-related psychological stress and disturbances can contribute to the occurrence of IBS. Watch this video to know more about Covid-19 from our expert doctors. Click Here Diagnosis Of Irritable bowel syndrome

Your doctor may be able to diagnose IBS based on your symptoms. They may also take one or more of the following steps to rule out other possible causes of your symptoms: Have you adopted a certain diet or cut out specific food groups for a time to rule out any food allergies Stool test to rule out infection or presence of any IBD. Complete blood tests are done to check for anemia and rule out celiac disease (a serious immune reaction to gluten). Perform a colonoscopy (if they suspect any type of Inflammatory Bowel Disease) Erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP) - can show if there is inflammation in the body (which does not occur with IBS).

The diagnosis of IBS is made by performing a careful review of the patient’s symptoms, determining the presence or absence of red flags, performing a thorough physical examination, and utilizing Rome IV criteria.

The Rome IV diagnostic criteria for irritable bowel syndrome:

Abdominal pain that occurs, on average, at least 1 day/week over the last 3 months, associated with two or more of the following criteria: Related to defecation Associated with a change in the frequency of stool Associated with a change in the form (appearance) of stool

Evaluation of IBS should include a thorough history and identification of any red flags like: IBS should not cause rectal bleeding, fever, weight loss, anemia Diarrhea that prevents sleep. Red flags indicate a colonoscopy Celebs affected Tyra Banks Tyra Banks,the model-turned-actress/television host once revealed that she suffers from IBS on her TV show, Tyra. She mentioned she is ‘very gassy’ and follows a low FODMAP diet to keep her symptoms under control. Shamita Shetty Bollywood actress, Shamita Shetty shared that she has colitis and IBS. She claimed that as a result she was in constant discomfort and switched to a gluten-free diet. She asserted that it helps her with digestive problems and is good for her intestines. Prevention Of Irritable bowel syndrome

IBS symptoms vary from person to person. Some people suffer from constipation, while others suffer from diarrhea. There are times when symptoms worsen, and other times when they improve or even disappear completely. Here are a few tips that may help you better manage IBS symptoms: 1. Avoid foods and drinks that trigger IBS. Foods that may make IBS constipation worse: Dairy products, especially cheese High-protein diets Carbonated drinks Caffeine and alcohol Processed foods, such as cookies or chips Refined grains (think white flour) in bread and cereals Foods that may make IBS diarrhea worse: Dairy foods, especially if you are lactose intolerant Foods with wheat if you’re gluten-sensitive Chocolate Carbonated drinks Caffeine Alcohol Too much insoluble fiber, such as from the skin of fruits and vegetables Fried foods 2. If you’re not sure what triggers your symptoms, try the elimination approach. List the foods you believe may be contributing to your symptoms. After that, for 12 weeks, cut out one food at a time to see if it affects how you feel. 3. Avoid or limit processed foods. Processed foods often contain unexpected or hidden ingredients that cause flare-ups of IBS.

Want to know more about the side effects of processed food? Click Here to Read 4. Avoid having big portions of meals at a time. You should aim for small meals. Eat multiple small meals throughout the day instead of 3 big meals. 5. Don’t eat too quickly. Avoid eating quickly, eating with your mouth open or chewing gum. This will minimize the amount of air you swallow. 6. Avoid food high in FODMAPs. Foods containing high FODMAPs (fermentable oligosaccharides, disaccharides, monosaccharides, and polyols - which are short-chain of carbohydrates) aren’t well digested in the intestine. They can cause excess gas production causing pain and diarrhea. Try to include low FODMAP foods like lettuces, carrots, crab, lobster, oils, pumpkin seeds, butter, peanuts, quinoa, brown rice etc. in your diet to reduce GI symptoms.

You can consult a dietitian or nutritionist to reduce high FODMAPs in your diet. Book an appointment with a dietician. Tap Here 7. Avoid gas-producing foods. Avoiding things like carbonated drinks, caffeine, raw fruits, and cruciferous vegetables like cabbage, broccoli, and cauliflower may be helpful if bloating and gas are issues for you. 8. Don’t smoke. Smoking can irritate the digestive system and worsen IBS symptoms, so it’s important to avoid smoking or quit if you are a smoker.

Say no to tobacco. Try our smoking cessation product range. Tap Here Specialist To Visit

If you experience any symptoms of IBS- 1. Consult your doctor as soon as possible for a proper diagnosis of the condition. 2. Keep track of your symptoms (for a few weeks) before going to the doctor such as: Cramping, abdominal pain, bloating and gas, constipation, diarrhea etc. When and for how long the symptoms appear Which food helped to ease the symptoms Which food flared up the symptoms 3. Take note of any other symptoms such as frequent loose, watery stools, urgent need to have a bowel movement, fullness etc. 4. Seek immediate medical attention if you have a fever, rectal bleeding, weight loss, or any other symptoms in addition to these. Sometimes IBS is difficult to be diagnosed by a general physician and one might need to see a specialist. In such cases, your doctor might advise you to consult: Gastroenterologists Nutritionists Gastroenterologists specialize in the disorders and diseases that affect the digestive system and nutritionists provide guidance on healthy eating habits and lifestyle choices that can improve digestive health.

Consult India’s best doctors online. Book An Appointment. Treatment Of Irritable bowel syndrome

Drug therapy may be initiated when IBS symptoms start to diminish the patient’s quality of life. 1. Drug treatments for IBS with diarrhea Antidiarrheal Medications- Losetron Atropine Eluxadoline Loperamide Diphenoxylate Loperamide Antibiotics like Rifaximin amongst others are prescribed to treat bacterial infections. 2. Drug treatments for IBS with constipation Lubiprostone Linaclotide Plecanatide Fiber supplements with psyllium, in case dietary fiber intake is insufficient

Check out our wide range of constipation care products. Click Here 3. Medication to treat abdominal pain in people with IBS. Antispasmodics- which relax the smooth muscle in the small and large intestines, thereby reducing abdominal spasms and cramps. Examples- Hyoscyamine, dicyclomine, pinaverium, peppermint oil, trimebutine Low-dose tricyclic antidepressants- Diazepam, lorazepam, clonazepam Low-dose selective serotonin reuptake inhibitors (SSRIs)- tegaserod Coated peppermint oil capsules 4. Bloating/ Gas It requires probiotics, dietary changes and medications such as fluoxetine. Probiotics contain good bacteria such as bifidobacteria and lactobacilli which help maintain the health of the digestive tract and aid in proper digestion.

Explore our wide range of probiotics supplements. Click Here Home-care For Irritable bowel syndrome 1. Be careful with fiber- Adding fiber to your diet can help deal with constipation. Increase the amount of fiber in your diet gradually over a few weeks. Whole grains, fruits, and vegetables are high in fiber. Avoid eating too much fiber if you have diarrhea.

1. Avoid trigger foods- If certain foods aggravate your signs and symptoms, avoid them. Avoid beans, cabbage, milk, cauliflower, and broccoli if you suffer from gas.
2. Eat at regular times- To help regulate bowel function, don’t skip meals and try to eat at the same time every day.
3. Be mindful of dairy products- If you’re lactose intolerant, try replacing milk with curd. Consuming milk products in small amounts or combining them with other foods is also beneficial.
4. Drink plenty of liquids- Try to include plenty of fluids in your diet. Drink 8-10 glasses of water daily.
5. Have Gluten free food- The gluten-free diet is very helpful for sufferers of IBS. Gluten is a group of proteins found in grains including rye, wheat, and barley, which may cause problems for some people with IBS.
6. Probiotics- Probiotics are live microorganisms that are similar to the good bacteria that live in the digestive tract. Taking them in the form of food or supplements helps to relieve gas and bloating.

Note: In a 2022 study, IBS patients who took a probiotic called Bifidobacterium longum for 1 month, observed a significant decrease in symptom severity compared to baseline measurements.

Want to know more benefits of probiotics? Tap Here

1. Keep a food and symptom diary- Record the foods you eat as well as the symptoms you experience to determine which foods help or worsen your symptoms.
2. Exercise regularly- Exercise relieves depression and stress, stimulates normal bowel contractions, and can make you feel better about yourself.
3. Manage stress- Your gut and bowel habits can be affected by your mood and stress levels. Spend some time during the day doing something that helps you relax or de-stress. For example, meditating, going for a walk outside or reading a book.

Watch out this video to know more about stress and anxiety and how to cope up in such situations. Tap here

Complications Of Irritable bowel syndrome

IBS can lead to both physical and mental health complications such as: 1. Diarrhea or Constipation Diarrhea occurs when you have three or more liquid bowel movements per day. Constipation occurs when stools are frequently hard and pellet-shaped. Even when the rectum is completely empty, patients may experience a sense of incomplete evacuation. 2. Anal fissures/ Tears These can occur as a result of pushing too hard during a bowel movement. During constipation, these small tears are difficult to heal. 3. Hemorrhoids It can cause rectal bleeding and develop from constipation-related straining. 4. Fecal impaction It happens when stool gets stuck in the rectum. In addition, healthcare workers will have to manually remove the impacted stool. 5. Rectal prolapse It happens when the rectum exits the anus, causing mucus to leak out. Chronic constipation can be the reason for this. 6. Cramping Cramping is usually caused by eating too much food. Both cramping and diarrhea may be avoided by cutting down on food consumption or eating smaller-sized meals. 7. Malnourishment It can develop as a result of avoiding certain nutritious, healthy foods that aggravate IBS symptoms. 8. Bladder issues Pressure on the bladder can cause irregular urination and irritation. 9. Problems in sex life You may have difficulty enjoying your sex life. People who have IBS may experience increased urgency to use the restroom or other symptoms. 10. Agoraphobia It is a fear of going out in public. Anxiety about finding a restroom in unfamiliar places can lead to agoraphobia symptoms. 11. Anxiety and depression It could arise as a result of coping with IBS symptoms. IBS symptoms can cause anxiety, and anxiety can exacerbate the symptoms. It is frequently a vicious circle. 12. Sleeping disturbances Sleeping problems are common with IBS because abdominal pain and other cramps can keep you awake at night. Alternative Therapies For Irritable bowel syndrome

1. Herbal therapies Herbal remedies have been shown to have a significant effect on the management of IBS symptoms. Such as turmeric extract, peppermint oil extract, artichoke (beet)leaf extract etc.

Learn more about herbs that help in managing IBS? Click here

1. Mind-body therapies Any stressful situation (for example, family problems, work stress, or examinations) may trigger symptoms of IBS in some people. Hypnotherapy- Hypnotherapy for IBS can help you to learn relaxation techniques, as well as learn new ways to manage stress. Cognitive behavioral therapy- CBT can help patients learn coping strategies to control the symptoms brought on by anxiety. The aim of this therapy is to help the patient identify their stressors and come up with healthier responses to reduce the impact of their triggers. Click here to know more Relaxation techniques- Specific exercises focused on promoting relaxation in the body, such as breathing exercises, are particularly helpful in fighting anxiety. This boosts the person’s confidence in battling negative thoughts as well as helps improve behavioral responses.

Gut-directed hypnotherapy- It is one of the most successful treatment approaches for chronic IBS. In addition to decreasing pain perception at the level of the brain, hypnosis may improve immune function in IBD and IBS, increase relaxation, reduce stress, and ease feelings of anxiety. 3. Acupuncture Acupuncture can help IBS by stimulating your nervous system in a way that releases chemicals and hormones that relieve pain, stress, and other symptoms. 4. Moxibustion It is a type of traditional Chinese medicine therapy that is typically administered in conjunction with acupuncture. The two approaches are thought to complement each other best. It is similar to heat therapy. Dry herbs are burned close to your skin, often near acupuncture points. Moxibustion combined with acupuncture may help with IBS symptoms. Living With Irritable bowel syndrome

1. Sociological impact- IBS has a significant negative impact on patients’ personal and professional lives, including a decreased tendency to travel, reduced socializing, and a loss of earnings. IBS makes it difficult to carry out daily tasks outside of the home, where access to a bathroom is a concern. This can eventually lead to social isolation. There are several ways to manage the sociological impact of IBS: Join a support group for individuals with IBS or seek professional counselling to address the emotional impact of IBS on your life. Try to communicate with others about your condition, needs and limitations. This can help reduce anxiety and make social interactions more comfortable.
2. Psychological impact- According to some studies, having IBS might increase your risk of depression, anxiety, sleep disorder, or bipolar disorder. Depression and anxiety can also make IBS worse. Here are some tips to help manage the psychological impact of IBS: Practice stress-reducing activities such as meditation, yoga, deep breathing etc. Talking to loved ones Consider consulting with a mental health professional who can help you develop coping strategies for managing anxiety, depression, and stress. Stay physically active as it helps in reducing stress. Track your symptoms. This can help you avoid foods that trigger your symptoms, which can reduce stress and anxiety.
3. Financial burden- IBS can be financially draining as well in the aspect of hospitalizations, physician services, prescription drugs, over-the-counter drugs, skilled nursing care etc. This can be managed through: Understanding the cost of therapy well in advance. Communicating any financial issues with the doctor’s team. This will help doctors to look for affordable alternatives. Finding financial support resources through doctors, or online. Taking help through your health insurance partners.
4. Role of caregivers- Caregivers play a very important role in the overall disease outcome of the patient diagnosed with IBS. The important role of caregivers are:  
   Making decisions about diseases management options Participating in doctor appointments Giving the medicines to the patient on time Helping with meals Frequently Asked Questions Is Irritable bowel syndrome (IBS) considered a “serious illness?” What are the Rome Criteria? Can certain foods affect IBS symptoms? Is there any specific diet for IBS sufferers? What is the difference between IBS and IBD? References Vahedi H, Ansari R, Mir-Nasseri M, Jafari E. Irritable bowel syndrome: A review article [Internet]. Middle East journal of digestive diseases. U.S. National Library of Medicine; 2010 [cited 2023Jan18]. Available from: StatPearls. Irritable bowel syndrome [Internet]. StatPearls. StatPearls Publishing; 2022 [cited 2023Jan18]. Available from: Wilkins T, Pepitone C, Alex B, Schade RR. Diagnosis and management of IBS in adults [Internet]. American Family Physician. 2012 [cited 2023Jan18]. Available from: StatPearls. Irritable bowel syndrome [Internet]. StatPearls. StatPearls Publishing; 2022 [cited 2023Jan18]. Available from: UCLA G. Oppenheimer center for neurobiology of stress and resilience [Internet]. UCLA G. Oppenheimer Center for Neurobiology of Stress and Resilience. [cited 2023Jan18]. Available from: Irritable bowel syndrome: A review and update - scientificliterature.org [Internet]. [cited 2023Jan18]. Available from: Basnayake C. Treatment of irritable bowel syndrome [Internet]. NPS MedicineWise. 2018 [cited 2023Jan18]. Available from: 9 ways to avoid IBS symptoms [Internet]. Temple Health. [cited 2023Jan18]. Available from: The Role of the Microbiome And Probiotics in IBS [Internet]. Gastroendonews.com. [cited 2023Jan18]. Available from: Managing irritable bowel syndrome (IBS) - queensland health [Internet]. [cited 2023Jan18]. Available from: Vahedi H, Ansari R, Mir-Nasseri M, Jafari E. Irritable bowel syndrome: A review article [Internet]. Middle East journal of digestive diseases. U.S. National Library of Medicine; 2010 [cited 2023Jan18]. Available from: Management of irritable bowel syndrome (IBS) in adults: Conventional … [Internet]. [cited 2023Jan18]. Available from: Burcham C. 8 celebrities who have spoken about their experience with IBS and gut issues [Internet]. Women’s Health. 2022 [cited 2023Jan18]. Available from:

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Japanese encephalitis Also known as Japanese B encephalitis, JE, Russian autumnal encephalitis and Summer encephalitis Overview Japanese encephalitis (JE) is a vector borne disease caused by the Japanese encephalitis virus (JEV). JEV is transmitted by mosquitoes to humans and animals. Domestic animals, especially pigs, generally act as reservoirs of the virus. This virus is not transmitted from one person to another.

Japanese encephalitis (JE) is most commonly seen in Asia and the western Pacific countries. It primarily affects children between the ages of 0 to 15 years and occasionally adults.

Most people infected with JE do not have symptoms or have only mild symptoms and treatment involves supporting the functions of the body as it tries to fight off the infection.

However, a small percentage of infected people can develop inflammation of the brain (encephalitis), with symptoms like sudden onset of headache, high fever, disorientation, coma, tremors and convulsions.

The prevention generally consists of avoiding mosquito bites by using mosquito repellents, wearing long-sleeved shirts and long pants, getting vaccinated for JE is also important especially while living in or traveling to JE endemic areas. Key Facts Usually seen in Children between 0-15 years of age Adults above 40 years of age Gender affected Both men and women Body part(s) involved Brain Prevalence India: 25% (2015) Mimicking Conditions Influenza Meningitis Acute ischemic stroke Necessary health tests/imaging Cerebrospinal fluid (CSF) Peripheral smear examination Serological tests: Plaque reduction neutralization test (PRNT), Hemagglutination inhibition (HI) test & Indirect immunofluorescence assay (IFA) Treatment Interferons Antiviral drugs: Minocycline Glucosidase inhibitors See All Symptoms Of Japanese Encephalitis

Generally, patients suffering from JE do not present with any symptoms, but if there are symptoms, they will appear 5 to 15 days after being infected. In mild cases of Japanese encephalitis, individuals might only develop fever and a headache, but in more severe cases, serious symptoms can develop quickly.

Some of the possible symptoms include: Headache High fever Nausea Vomiting Stiff neck Tremors (shaking) Hyperactivity of the muscles Abnormal posturing Abdominal pain

The symptoms of Japanese encephalitis that indicate brain inflammation include deafness, uncontrollable emotions, and weakness on one side of the body, which can cause lifelong complications. In some cases, individuals might also undergo changes to brain function such as: Disorientation Coma Stupor (state of near-unconsciousness) Convulsions or seizures in children Swelling of the testicles (in rare cases) Causes Of Japanese Encephalitis

Japanese encephalitis is caused by a flavivirus, which can affect both humans and animals. The virus is passed from animals to humans through the bite of an infected mosquito. Understanding the transmission cycle is very important in knowing the cause. Transmission This virus exists in the zoonotic transmission cycle, which means the infections spread from animals, through insects to humans. The general carrier and host of this virus are: Mosquitoes: The major mosquito vectors of JEV vary in different geographic regions, but the most common are Culex species (mainly Culex tritaeniorhynchus). Pigs: They are the main contributors in the transmission cycle with respect to human infection, because these animals often stay close to human dwellings. Bats: Recently, JEV antibodies were detected in bats, revealing that bats can be a part of the JEV transmission cycle. Water birds: The birds belonging to the family Ardeidae (cattle egrets and pond herons) are important maintenance hosts.

In most temperate areas of Asia, JEV is transmitted mainly during the warm season whereas in the tropics and subtropical regions, transmission can occur year-round but often intensifies during the rainy season and pre-harvest period in rice-cultivating regions.

First, the endemic region is composed of Southern India, Southern Vietnam, Southern Thailand, the Philippines, Malaysia, and Indonesia. Secondly, the intermediary subtropical region, which includes Northern India, Nepal, North and Central Burma, Northern Thailand, Northern Vietnam, Southern China, and Bangladesh. Thirdly, the temperate epidemic region, spanning Northern China, Korea, Japan, Taiwan, and the southern extremities of Russia.

Japanese encephalitis virus (JEV) is a flavivirus related to dengue, yellow fever and West Nile viruses. Read more about symptoms, causes, treatment and prevention of dengue. Click Now! Risk Factors For Japanese Encephalitis

The risk of becoming infected with Japanese encephalitis is highest during and right after rainy seasons as mosquitos breed during this time and populations tend to increase suddenly around rainy seasons. The factors determining who of all the infected develop the disease are unknown, but factors such as age, genetic make-up, general health, and pre-existing immunity play an important role in the spread of the disease.

People in countries with year-round tropical climates are also at risk of getting Japanese encephalitis. High-risk countries include:

China Myanmar (Burma) Thailand Philippines Sri Lanka Malaysia Indonesia Vietnam Cambodia Laos Nepal India

Overall, for every million travelers it is estimated that there’s less than 1 case of Japanese encephalitis. But there are certain activities that can increase the risk of getting the infection. These include: Visiting rural areas during the rainy season Camping, or traveling in high-risk areas for a long time Living or working outdoors in rural areas Did you know? Despite its name, Japanese encephalitis is now relatively rare in Japan as a result of mass immunization programmes. Understand why vaccination is needed in adults? Click To Read! Diagnosis Of Japanese Encephalitis

Individuals who live in or have traveled to a JE-endemic area and experience encephalitis are considered a suspected JE case. Confirming the diagnosis consist of the following: Detailed medical and travel history Japanese encephalitis (JE) should be considered in a patient with evidence of a neurologic infection like meningitis, encephalitis, or acute flaccid paralysis (onset of weakness or paralysis with reduced muscle). Individuals who have recently traveled to or resided in an endemic country in Asia or the western Pacific are also suspected of infection with JEV. Laboratory tests Clinically, it is difficult to distinguish JE from other cases of encephalitis, therefore laboratory confirmation is necessary in such circumstances. This is generally accomplished by testing of the following:

1. Cerebrospinal fluid (CSF): The ideal method for laboratory confirmation is testing cerebrospinal fluid (CSF) or serum for JEV-specific IgM antibodies to detect virus-specific IgM antibodies. JE virus IgM antibodies are usually detectable 3 to 8 days after onset of illness and persist for 30 to 90 days, but longer persistence has also been documented.
2. Peripheral blood picture: A peripheral smear examination shows moderate leukocytosis with relative lymphopenia (decreased white blood cells called lymphocytes). The case fatality rate is high, around 25–50%, and most of the deaths occur around 5–9 days after onset.
3. Serological tests: In JE cases, generally the infection is asymptomatic. Several assays have been developed for detection of antibodies induced by natural infection or vaccination. A multitude of tests based on nucleic acid detection have been explored for JEV detection in humans as well as the swine population. These tests include: Plaque reduction neutralization test (PRNT): PRNT is considered as a gold standard in flavivirus diagnosis. To discriminate between potentially cross-reactive antibodies with other flaviviruses, PRNT is the test of choice. A fourfold increase in IgG titre in acute and convalescent sera is considered as a confirmatory test. Hemagglutination inhibition (HI) test: The hemagglutination inhibition (HI) assay is used to titrate the antibody response to a viral infection. The principle behind the hemagglutination test is that the nucleic acids of viruses encode proteins such as hemagglutinin, that are expressed on the surface of the virus. Indirect immunofluorescence assay (IFA): It is a standard virologic technique to identify the presence of antibodies by their specific ability to react with viral antigens expressed in infected cells; bound antibodies are visualized by incubation with fluorescently labeled anti-human antibody. Enzyme-linked immunosorbent assay (ELISA): The JEV-specific IgM antibody capture ELISA (MAC-ELISA) has now become the first-line diagnostic assay recommended by the WHO for detection of acute infections. Virus isolation: Isolation can be done in mice using intra cerebral route. However, transient and low-level presence of virus in blood is observed in JE infection, therefore, the isolation of virus is not a method of choice for diagnosis in clinical specimens. Nucleic acid amplification: The RT-PCR tests, quantitative PCR (TaqMan), restriction fragment length polymorphism (RFLP) analysis are useful molecular assay tests as they are very specific, sensitive and can detect low viral copies in acute or early phase of infection. Staphylococcal coagglutination tests: This test is done using polyclonal or monoclonal antibodies in rapid diagnosis of JE. Did you know? Anti-N-methyl-D-aspartate receptor (NMDA) encephalitis is a neuro-autoimmune disease. It can be confirmed by a test NMDA IGg, read more about it. Click Here! Prevention Of Japanese Encephalitis

Japanese encephalitis virus is spread to people through the bite of an infected mosquito. The best way to prevent Japanese encephalitis virus infection is to protect from mosquito bites. The tips that can help prevent it are:

Use Environmental Protection Agency (EPA) registered insect repellents Spray insect repellent onto hands and then apply to a child’s face Cover strollers and baby carriers with mosquito netting Do not use products containing oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD) for children under 3 years old Do not apply insect repellent to a child’s hands, eyes, mouth, cuts, or irritated skin Always follow the product label instructions Reapply insect repellent as directed Do not spray repellent on the skin under clothing Apply sunscreen first and then insect repellent, if using a sunscreen Wear long-sleeved shirts and long pants Use 0.5% permethrin (insecticide that kills or repels mosquitoes) to treat clothing and gear (such as boots, pants, socks, and tents) Use screens on windows and doors and repair holes in screens to keep mosquitoes outdoors Prevent water stagnation to stop mosquitoes from laying eggs in or near water Use air conditioning, if available Empty or throw out items that hold water such as tires, buckets, planters, toys, pools, birdbaths, flowerpots, or trash containers, once a week While traveling, choose a hotel or lodging with air conditioning or window and door screens Minimize outdoor activities during dawn and dusk in JE endemic areas Improved and safe methods of animal rearing Use mosquito nets correctly in the following way: Tuck the net under the mattress to keep the mosquitoes out Tuck netting under the crib mattress or select a mosquito net long enough to touch the floor Pull the net tightly to avoid choking hazards for young children. Check label instructions for additional information Hook or tie the sides of the net to other objects if they are sagging in towards the sleeping area Check for holes or tears in the net where mosquitoes can enter Do not sleep directly against the net, as mosquitoes can still bite through holes in the net Travelers to rural areas can be vaccinated after consulting the doctor. Types of vaccinations available are: Purified, formalin-inactivated mouse-brain-derived JE vaccine Inactivated hamster kidney cell-culture-derived JE vaccine Vaccine based on the SA14-14-2 strain Cell-culture derived live attenuated JE vaccine Vaccination in India The JE vaccination campaign was launched during 2006 wherein 11 of the most sensitive districts in Assam, Karnataka and Uttar Pradesh were covered. Altogether, 86 JE endemic districts in the states of Assam, Andhra Pradesh, Bihar, Haryana, Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu, Uttar Pradesh, and West Bengal have been covered.

Inactivated Japanese Encephalitis virus protein is used for prevention of Japanese Encephalitis. Learn more about Inactivated Japanese Encephalitis virus protein. Click Now! Specialist To Visit

Most people infected by the Japanese encephalitis virus have either no symptoms or mild short-lived symptoms, which are often mistaken for influenza (flu). In rare cases, it can cause neurological problems as well. The doctors to visit in this case are: General physician Neurologist

A neurologist is a doctor specialized in organic disorders of nerves and the nervous system.

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

There is no specific treatment for JE except for supportive care for hospitalized patients, controlling convulsions and treating raised intracranial pressure when they occur.

Treatment is mostly symptomatic and consist of the following: Adequate amount of fluids Use of pain relievers Medication to reduce fever may relieve some symptoms

Apart from this there are few other promising modalities like: Interferons Interferon-á is currently the most promising potential treatment. It is produced naturally in cerebrospinal fluid (CSF) in response to infection with Japanese encephalitis virus.

Naturally occurring compounds such as arctigenin, a phenylpropanoid dibenzyl butyrolactone lignan, and rosmarinic acid, a phenolic compound found in various herbs like basil, mint, rosemary, sage, savory, marjoram, and oregano has been found to provide protection to mice against JEV.

Antiviral drugs A number of antiviral agents have been investigated, including INF alfa-2a68 and diethyldithiocarbamate (a low molecular weight dithiol). However, none of these have convincingly been shown to improve the outcome of JE. Mannitol might be used to reduce intracranial pressure.

Minocycline, a member of the broad-spectrum antibiotic tetracycline group, has been a notable breakthrough in anti-flavivirus drug research. Another compound that has shown inhibition of JEV replication completely in vitro is an N-methylisatin-β-thiosemicarbazone derivative.

Glucosidase inhibitors This works on the mechanism that eliminates the production of several endoplasmic reticulum–budding viruses, including dengue type II (DEN-2) and JEV.

Jenvac Vaccine is a medicine used for prevention of Japanese encephalitis (JE). It protects against JE and is given as part of a universal immunization program for selected places endemic to JE. Read more about it. Click Now! Home-care For Japanese Encephalitis

There is no effective and exact treatment for Japanese Encephalitis, but like any other viral infections, mild symptoms can be managed by: Drinking adequate fluids Taking enough rest Eating a nutritious, wholesome and well balanced diet Managing pain with painkillers Taking multivitamin supplements Adding honey and lemon to the diet Keeping oneself warm and comfortable Adding bananas and rice to soothe an upset stomach and curb diarrhea Relieving the symptoms of fever with tulsi leaves Are you down with fever? If you are down with fever and are wondering what to do to lower your body temperature, here is a list of a few do’s and don’ts to follow. Read To Know! Complications Of Japanese Encephalitis

Complications of JE that increase risk of death are treatable in most of the cases. Some of the common complications include:

Seizures: JE is associated with seizures in 46% of the patients in the acute stage of encephalitis which is easily controlled by monotherapy. Increased intracranial pressure: Growing pressure inside of the skull due to seizures in case of JE. Status epilepticus: A seizure that lasts longer than 5 minutes, or having more than 1 seizure within a 5 minutes period, without returning to a normal level of consciousness between episodes. Parkinson’s-like symptoms: These include symptoms such as mask‐like face, rigidity, and tremor. However, acute flaccid paralysis can be a presenting symptom. Acute encephalitis: Rapid implantation of the brain, most commonly caused by virus. Aspiration pneumonia: It occurs when food, saliva, liquids, or vomit is breathed into the lungs or airways leading to the lungs, instead of being swallowed into the esophagus and stomach. This is due to reduced gag reflex in patients with JE.

The case-fatality rate among those with encephalitis can be as high as 30% and permanent neurologic or psychiatric sequelae can occur in 30%–50% of those with encephalitis. Read about ways to prevent it. Click Now!

Alternative Therapies For Japanese Encephalitis

Japanese encephalitis is a virus spread by the bite of infected mosquitoes that can cause brain swelling. Many clinical trials and research are in progress to battle this infection. Some of the latest advances include: RNA interference This is an innovative study on mice that uses RNA interface to administer intracranial dose of lentivirus-delivered short hairpin RNA has been sufficient to provide protection against lethal encephalitis. TNF activity Tumor necrosis factor (TNF) can be a product of T cells and can act on T cells. Pentoxifylline has been studied as an adjunctive treatment for both malaria and dengue fever because of its anti-TNF activity, can also inhibit JEV replication in vitro and has protective effects in mouse models of Japanese encephalitis. TLRs Toll-like receptors (TLRs) are a class of proteins that play a key role in the innate immune system. Tlr4 protects mice against the lethal effects of Japanese encephalitis; therefore, this receptor represents a potential therapeutic target. The effect of TLR4 is nullified by eritoran (an investigational drug for the treatment of severe sepsis), which has been used in phase III trials for sepsis and has also been shown to protect mice in a model of influenza. Living With Japanese Encephalitis

Japanese encephalitis is a very low risk disease with mild symptoms for most travelers, traveling to JE affected countries. However, some travelers will be at increased risk of infection based on factors like periods of travel, travel during the JE virus transmission season, and spending time in rural areas. To prevent this individual at higher risk can follow these tips:

Wear long sleeved shirts and pants Use EPA approved mosquito repellent Stay indoors as much as possible Use air conditioning Do not allow mosquitoes to breed in stagnant water Use mosquito nets Get vaccinated while planning to live in a JE-endemic country for a month or longer

In case of the infection with mild symptoms, following things can be done:

Staying hydrated Taking medication for pain and fever Resting as much as possible Eating a nutritious diet

Viral infections are extremely common. Every other person seems to be having one infection or the other. Read about 4 simple habits to follow to prevent these infections. Click Here!

Frequently Asked Questions How is Japanese encephalitis transmitted? Is Japanese encephalitis contagious? Is Japanese encephalitis deadly? Is Japanese encephalitis curable? How to prevent JE? References Basu A, Dutta K. Recent advances in Japanese encephalitis. F1000Res. 2017;6:259. Published 2017 Mar 13. Amicizia D, Zangrillo F, Lai PL, Iovine M, Panatto D. Overview of Japanese encephalitis disease and its prevention. Focus on IC51 vaccine (IXIARO®). J Prev Med Hyg. 2018;59(1):E99-E107. Published 2018 Mar 30. Prevention. Japanese Encephalitis. Center For Disease Control And Prevention. Feb 2019. Ghosh D, Basu A. Japanese encephalitis-a pathological and clinical perspective. PLoS Negl Trop Dis. 2009;3(9):e437. Published 2009 Sep 29. Key Facts. Japanese Encephalitis. Feb 2019. Japanese Encephalitis. Causes. NHS Uk. Feb 2019. AkiraIgarashi. JAPANESE ENCEPHALITIS VIRUS(FLAVIVIRIDAE). Encyclopedia of Virology (Second Edition). Jun 2004. Misra UK, Kalita J. Seizures in Japanese encephalitis. J Neurol Sci. 2001. Zhao J, Chen F, Lu L, Li C, Du Y. Japanese encephalitis (JE) mimicking acute ischemic stroke: A case report. Medicine (Baltimore). 2020. Sarika Tiwari, Rishi Kumar Singh et al. Japanese encephalitis: a review of the Indian perspective. The Brazilian Journal of Infectious disease ;16(6). 2012.

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Jaundice Also known as Yellowing of the skin Overview Jaundice is a condition characterized by yellowish discoloration of the skin, sclera (whites of the eyes), and mucous membranes resulting from the accumulation of excessive amounts of bilirubin. Bilirubin is a waste product that is made during the normal breakdown of hemoglobin. It passes through the liver and is eventually excreted from the body. Excessive bilirubin is the result of increased production or impaired excretion.

The normal serum levels of bilirubin are less than 1mg/dl; however, peripheral yellowing of the eye sclera (also known as icterus), is seen when the bilirubin levels are as high as 3 mg/dl as sclerae have a high affinity for bilirubin due to their high elastin content. As the serum bilirubin levels increase, the skin will progressively discolor ranging from yellow to green. The green color is due to biliverdin, a type of bile pigment that gives the color.

Jaundice usually does not require treatment in adults. Treatment if required is mostly focussed on its underlying causes and complications. Jaundice can generally be managed with diet or lifestyle, but if the cause is severe, the individuals may need immediate surgical or long-term treatment. Key Facts Usually seen in Adults above 45 years of age Gender affected Both men and women but more common in men Body part(s) involved Liver Gallbladder Pancreas Mimicking Conditions Carotenoderma Quinacrine Necessary health tests/imaging Laboratory evaluation: Complete blood count (CBC), Alanine transaminase test, Aspartate transaminase test, and γ-Glutamyltransferase test Imaging: Ultrasonography, Dual phased computed tomography (CT), and Magnetic resonance cholangiopancreatography Liver biopsy Treatment Medications: Iron supplements, Antihistamines, Cholestyramine, Rifampin, and Naltrexone. Surgery Liver transplant Specialists to consult General physician Gastroenterologist Internal medicine specialist Symptoms Of Jaundice

Some individuals may present certain signs and symptoms while others don’t. Here are common symptoms of jaundice that include: A yellow tinge to the skin, mucous membranes, and the whites of the eyes Pale or clay-colored stools Dark urine Itchiness in the skin Weight loss Vomiting Nausea Loss of appetite Other symptoms that accompany jaundice may include: Fatigue, tiredness, and drowsiness Abdominal pain and tenderness Blood in vomit or stool Dark or tarry stool Flu-like symptoms (fever and chills) Agitation or confusion Easy bruising or bleeding, causing the tiny reddish-purple rash Did you know? Yellowing of the skin, sparing the sclerae, is indicative of carotenoderma which occurs in healthy individuals who consume excessive carotene-rich foods like carrots. Though the excessive consumption can lead to carotenoderma, carrots are a powerhouse of nutrients. Here’s more benefits of carrots. Read Here! Causes Of Jaundice

On the basis of causes, jaundice can be classified into three types. They are: Pre-hepatic jaundice Hepatic jaundice Post-hepatic jaundice

1. Pre-hepatic jaundice This type of jaundice is caused due to hemolysis (destruction of red blood cells), therefore it is also known as hemolytic jaundice. The causes of prehepatic/hemolytic jaundice are classified into:

Congenital causes (present at birth) Spherocytosis: This condition affects the red blood cells (RBCs) and is characterized by anemia, jaundice, and enlarged spleen. Elliptocytosis: It is a hereditary disorder in which the RBCs are elliptical in shape rather than the normal round shape. Congenital LCAT deficiency: This is a genetic disorder that affects the body’s ability to process cholesterol. It is characterized by corneal opacities (clear front surface of the eye), hemolytic anemia, and kidney failure. Thalassemia: It is an inherited blood disorder caused when the body doesn’t make enough hemoglobin. Sickle cell anemia: It is a group of inherited disorders known as sickle cell disease that affects the shape of RBCs. Stomatocytosis: A rare condition of RBCs characterized by a mouthlike or slitlike pattern rather than the normal shape. Acanthocytosis: It is a red cell phenotype (determines the antigen present in RBCs) indicative of various underlying conditions. Echinocytes: In this condition, the RBCs are crenated (notched) and resemble a hedgehog or sea urchin rather than the pale-centered biconcave disks. GSH synthetase deficiency: Glutathione synthetase (GHS) deficiency is a disorder that prevents the production of an important molecule called glutathione which is required to prevent cell damage. Pyruvate kinase deficiency: An inherited lack of the enzyme pyruvate kinase, without which, the RBCs break down too easily, resulting in hemolytic anemia (low level of RBCs). G6PD deficiency: It is a genetic disorder in which the enzyme called glucose-6-phosphate dehydrogenase (G6PD) is less. G6PD protects RBCs from substances in the blood that could harm them. Erythroblastosis fetalis: It is hemolytic anemia in the fetus or neonate. Acquired causes Microangiopathy: It is a disease of the microvessels and small blood vessels in the microcirculation system. Hemolytic uremic syndrome: It is a condition that can occur when the small blood vessels in the kidneys become damaged and inflamed. Disseminated intravascular clot: This is a serious disorder in which the proteins that control blood clotting become overactive. Paroxysmal nightly hemoglobinuria: It is a rare disorder in which RBCs break apart prematurely. Thrombotic thrombocytopenic purpura: This condition is characterized by the formation of blood clots (thrombi) in small blood vessels throughout the body. Hypophosphatemia: A condition in which your blood has a low level of phosphorus leading to muscle weakness, respiratory or heart failure, seizures, or comas. Other causes Resorption of extensive hematomas (blood clots) Autoimmune hemolysis Long-distance runners Infections like malaria Chemicals like nitrites and aniline dyes Toxins such as snake venoms Transfusion reactions Trauma Vitamin B12 deficiency Folic acid deficiency Vitamins are essential nutrients for our various bodily functions like immunity, digestion, and metabolism. Learn why are vitamins so important? Tap To Read!

1. Hepatic jaundice It is a type of jaundice in which the basic defect lies within the liver mainly in the hepatocytes. The causes include:

Congenital causes Wilson’s disease: It is a rare inherited disorder that causes copper to accumulate in your liver, brain, and other vital organs. Rotor’s syndrome: A mild condition characterized by elevated levels of a substance called bilirubin in the blood (hyperbilirubinemia). Hemochromatosis: An inherited condition where iron levels in the body slowly build up over many years. Crigler Najjar syndrome: It is a severe condition characterized by hyperbilirubinemia. Gilbert’s syndrome: A common, harmless liver condition in which the liver doesn’t properly process bilirubin. Dubin-Johnson’s syndrome: It is characterized by jaundice that appears during adolescence or early adulthood. Acquired causes Drug-related hepatitis (e.g. NSAIDs) Sepsis Pregnancy Malnutrition Physical trauma Hepatic adenoma (non-cancerous liver tumor) Viral hepatitis Alcoholic hepatitis Autoimmune hepatitis 3. Post-hepatic jaundice It is the type of jaundice in which the cause lies in the biliary portion of the hepatobiliary system (liver, gallbladder, and bile ducts). The major cause of post-hepatic jaundice is biliary obstruction outside the liver, hence, it is also known as obstructive jaundice. The causes include:

Congenital causes Biliary atresia: This is a condition in which there is a blockage in the tubes (ducts) that carry bile from the liver to the gallbladder. Cystic fibrosis: An inherited disorder that affects the cells that produce mucus, sweat, and digestive juices. Idiopathic dilatation of the common bile duct: This can be an indicator for obstructive jaundice. Pancreatic biliary malfunction: A medical condition that results from the inability of the sphincter to contract and relax normally. Choledochal cyst: This is a congenital anomaly of the duct (tube) that transports bile from the liver to the gallbladder and small intestine. Acquired causes Portal biliopathy: It refers to the abnormalities seen in bile duct imaging that occur in patients with portal cavernoma (changes in the portal vein). Strictures: It causes abnormal narrowing of the bodily passages. Choledocholithiasis: It refers to the presence of at least one gallstone in the common bile duct. Intra-abdominal tuberculosis (TB): A type of TB that affects the gut, the peritoneum (the lining of the abdominal cavity), abdominal lymph nodes, and, more rarely, the solid organs in the abdomen like the liver, pancreas, and spleen. Other causes: Trauma, AIDS, tumors, cholecystitis (inflammation of the gallbladder), and pancreatitis (inflammation of the pancreas). Pancreatitis is inflammation of the pancreas. It happens when digestive enzymes start digesting the pancreas itself. Read more about pancreatitis. Click Here!

Risk Factors For Jaundice

The risk factors that may increase the chances of jaundice are similar to that for liver and gallbladder disorders. They may include: Autoimmune disorders Extensive use of medications that may damage the liver Infections like hepatitis A, hepatitis B, or hepatitis C Exposure to certain industrial chemicals Presence of congenital abnormalities Trauma to the liver Obstruction in the bile duct Deficiencies of certain vitamins and enzymes Excessive alcohol consumption Did you know? The term alcoholic liver disease refers to medical conditions and their respective symptoms which develop due to liver damage by alcohol abuse and misuse. Understand better about alcoholic liver disease. Read More! Diagnosis Of Jaundice

The differential diagnosis for jaundice is based on whether the disease responsible for jaundice is pre-hepatic (primarily unconjugated hyperbilirubinemia), hepatic (mixed hyperbilirubinemia), or post-hepatic (conjugated hyperbilirubinemia). Jaundice can be diagnosed by checking for any signs of liver disease and it includes:

1. Physical examination and history A detailed alcohol and drug use history can help identify intrahepatic disorders such as alcoholic liver disease, viral hepatitis, chronic liver disease, drug-induced liver injury or any underlying malignancies.

The physical examination should include the following: Evaluating encephalopathy by testing for asterixis (motor control disorder) and changes in the mental status. Assessing for any signs of chronic liver disease including bruising. Looking for abnormal collection of blood vessels near the surface of the skin (spider angiomas), redness of palms and hands (palmar erythema), and an increased amount of breast tissues in men (gynecomastia). Examining the abdomen completely to evaluate for enlargements of the liver and spleen, right upper quadrant tenderness, and ascites (fluid build-up in the stomach). 2. Laboratory evaluation The laboratory evaluation to determine the etiology of jaundice should include: Fractionated bilirubin: Used in the diagnosis and treatment of liver diseases, hemolytic disorders, hematologic disorders, and metabolic disorders, including hepatitis and gallbladder obstructive disease. Complete blood count (CBC): To identify hemolysis and evaluate for anemia of chronic disease and thrombocytopenia, which is common in acute deterioration of liver function. Alanine transaminase test and aspartate transaminase test: To check for hepatocellular damage. γ-Glutamyltransferase test: An elevated γ-glutamyltransferase level can be associated with biliary obstruction and hepatocellular damage. Alkaline phosphatase test: An elevated alkaline phosphatase level can be associated with biliary obstruction and parenchymal liver disease, but it is also associated with several other physiologic and non-biliary pathologic processes in bone, kidney, intestine, and placenta Other tests: Low levels of prothrombin time (INR), albumin, and protein can indicate decreased synthetic function and liver decompensation. Note: If the jaundice etiology is unknown after the initial laboratory evaluation, it is necessary to perform additional tests including hepatitis panle and autoimmune panel such as antinuclear, smooth muscle, and liver-kidney microsomal antibodies.

1. Imaging Noninvasive imaging modalities in individuals with jaundice include: Ultrasonography and dual phased computed tomography (CT): These are used to evaluate obstruction, cirrhosis, and vessel patency of the liver. Magnetic resonance cholangiopancreatography: To visualize the intra and extrahepatic biliary tree.
2. Liver biopsy It is done in cases of jaundice in which the diagnosis is unclear after the initial history and physical examination, laboratory studies, and imaging tests. Prevention Of Jaundice

Jaundice is related to liver function. Since there are numerous causes for jaundice, there are no perfect prevention guidelines. The basic way to prevent jaundice is by taking care of the liver with several lifestyle changes such as: Avoiding hepatitis infections Keeping the weight in check to prevent being overweight or obese Monitoring cholesterol levels Eating a well-balanced diet Exercising regularly Controlling the alcohol consumption Making sure that toxins from chemicals and other sources, both inhaled and touched are avoided Managing medications carefully by avoiding taking more than the recommended dose Consulting a doctor before starting on any herbal therapies Quitting smoking and avoiding recreational drugs Getting the recommended vaccinations before traveling Practicing safe sex and using condoms to avoid chances of infections Getting a full body checkup, if family history of autoimmune conditions is present Did you know? Liver disease accounts for around 2 million deaths every year across the world. Here are 5 simple tips to prevent liver disease. Click To Know! Specialist To Visit

Jaundice is when your skin or the whites of your eyes turn yellow. It can be a sign of something serious such as a liver disease. The doctors that can help diagnose and treat jaundice are: General physician Gastroenterologist Internal medicine specialist Seek medical help if you notice the following: Skin or the white part of the eyes looks yellow. Itching in the skin, darker urine, and paler stool than usual. Consult India’s best doctors online from the comfort of your home. Consult Now!

Treatment Of Jaundice

Jaundice usually does not require any treatment in adults, but the treatment is majorly based on the cause of jaundice. The treatment of choice for jaundice is the correction of the underlying hepatobiliary or hematological disease. Here are some of the options for the treatment and management of jaundice: If the cause of jaundice is acute viral hepatitis, then it will go away on its own as the liver begins to heal. Surgery may be required if the cause of jaundice is a blocked bile duct. Pruritus (itchy skin) associated with cholestasis (liver disease when the flow of bile from the liver is reduced or blocked) can be managed based on the severity. For mild pruritus, warm baths or oatmeal baths help in relieving the discomfort. Antihistamines can also help with pruritus. Patients with moderate to severe pruritus can benefit from medications like cholestyramine or colestipol. Other less effective therapies include: Rifampin Naltrexone Sertraline Phenobarbital Hemolytic jaundice is treated with iron medication. Including iron-rich foods in the diet is also effective. Steroids also prove effective in treating jaundice. Liver transplantation may be the only effective therapy for pruritus if all the medical treatments fail. A liver transplant is also suggested if jaundice is due to liver decomposition, depending on the severity of the liver injury. Iron helps in building our hemoglobin levels and making us more energetic and active. Read more about the reason behind feeling cold and superfoods to tackle it. Click Here!

Home-care For Jaundice

Individuals suffering from jaundice generally feel fatigued, have a low appetite, and have itchy skin. It usually gets better on its own, but, it is important to treat the underlying cause of jaundice. However, to manage the disease at home several measures can be taken like: Eating pleasant-tasting bland food Having a well-balanced diet with low-fat Avoiding supplements, herbs, or medications that can cause side effects Drinking fluids and juices as much as possible Taking adequate amounts of rest Following the instructions given the doctor Avoiding any herbal medication or therapy Taking medications (if any) by the doctor Applying moisturizer for itchy skin Taking warm water baths The food you eat plays a vital role in your mental and physical wellness. Read more about 6 tips to reap the benefits of a healthy diet. Tap To Read!

Complications Of Jaundice

These vary depending on the medical conditions, the type of jaundice, and severity. Some common complications include: Bleeding Constipation Abdominal pain Gastritis Diarrhea Anemia Infections Bloating of the stomach Swelling in the legs Liver cirrhosis Kidney failure

Some of the uncommon complications seen in severe conditions include: Primary sclerosing cholangitis (disease of the bile duct) Cholangiocarcinoma (cancer of the bile duct) Hepatic amyloid (amyloid deposits in the liver) Chronic hepatitis (inflammation of the liver) Cholangitis (inflammation of the bile duct) Alternative Therapies For Jaundice

Jaundice may indicate another condition or disease. Diagnosing the cause and getting proper treatment can be the key to a healthy recovery. Here are some of the alternative therapies:

Unani Unani is a traditional medicine practiced in South Asia and modern-day Central Asia. According to this therapy, an oil-free and bland diet along with adequate rest is essential for recovery from jaundice. Here are some helpful dietary tips for those affected by yarqaan (jaundice). They are: Eating a diet that is easily digestible, usually a liquid diet. Incorporating a high carbohydrate diet without spices and fat. Drink enough fluids and always drink boiled water. Eating vegetables and fruit juices that are raw or steamed. Adding fruits, yogurt and porridge to the diet. Karela (bitter gourd) and saijan ki phalli (drumsticks or moringa) are very beneficial for jaundice patients. Increasing the intake of foods rich in calcium and other minerals like iron and magnesium. Consuming smaller and frequent meals. Fasting with fruit juice for about one week is very effective for the patients. Fruits are natural laxatives, diuretics, and fat burners. They are a powerhouse of fiber, energy, vitamins, minerals, and antioxidants. Here’s more on fruit juices v/s whole fruits. Click To Read!

Home remedies Some of the popular food items that can help in the treatment of jaundice are:

1. Sugarcane (Ganna) juice: It aids in strengthening the liver and helps in its proper functioning.
2. Yogurt (Dahi):The probiotics in it help in decreasing the bilirubin levels by fighting against harmful bacteria and increasing immunity.
3. Tomatoes (Tamatar): They contain a compound called lycopene, which is a potent antioxidant and helps with detoxification of the liver.
4. Indian gooseberry (Amla): It is filled with Vitamin C and other essential nutrients that help in combating jaundice by improving liver functioning and balancing the serum bilirubin levels.
5. Goat’s milk: It is easy to digest and contains antibodies that can help in curing jaundice.
6. Grape (Angoor) juice: Grapes, especially the green ones, help in improving liver function and balance the serum bilirubin levels.
7. Ginger (Adrak): Ginger has excellent antioxidative and can help in reducing cholesterol levels, thus aiding liver recovery.
8. Garlic (Lahsun): Garlic is a powerful antioxidant. This helps with liver detoxification and thus contributes to curing jaundice.
9. Lemon (Nimbu): Lemon juice helps in enhancing immunity and stops further damage to the liver by unblocking the bile ducts as it has antioxidant properties.
10. Holy basil (Tulsi): It is perfect for the liver as it protects the liver, increases immunity, and fights against infections.
11. Papaya (Papita) leaves:They are rich in enzymes that support digestion and improve liver health. Living With Jaundice

All the conditions associated with jaundice require medical diagnosis and treatment. In some cases, the only treatment needed may be observed. Jaundice can be managed with certain modifications in lifestyle like: Maintaining proper hygiene to avoid infections Decreasing alcohol consumption Focusing on eating a well-balanced diet Consulting the doctors before starting any herbal therapies Avoiding medications that have ill-effect on the liver Drinking adequate fluids Exercising regularly Getting vaccinated for hepatitis B and hepatitis C infections Hepatitis B vaccine (rDNA) is a vaccine which helps develop immunity by initiating a mild infection. Learn more about it. Click Here!

Frequently Asked Questions What is bilirubin? Can one still have jaundice if they are not showing a yellowish tinge? Is liver dysfunction the only cause of jaundice? Is jaundice a fatal condition? What is the best diet for patients with jaundice? What are the risks of developing jaundice? References Joseph A, Samant H. Jaundice. [Updated 2021 Aug 11]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. Muhammad Waseem Abbas\*, Talha Shamshad, et al. Jaundice: a basic review. International Journal of Research in Medical Sciences. Vol 4, No 5. May 2016. Jaundice. Health Library. Winchester Hospital. April 2018. Stillman AE. Jaundice. In: Walker HK, Hall WD, Hurst JW, editors. Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Boston: Butterworths; 1990. Chapter 87. Introduction. Yarqaan (Jaundice). National Health Portal. Jul 2016. Kruger, Danielle RPA. The assessment of jaundice in adults: Tests, imaging, differential diagnosis. JAAPA Vol 24 (6). Jun 2011.

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Joint pain Also known as Arthralgia Overview Joint pain is a perception of pain or discomfort in the joints. While pain in the joints is a common occurrence with age, other factors like weight, previous injuries, overuse and underlying systemic medical conditions can also cause it. Joint pain is mostly associated with major joints like knee, hip, ankle or wrist but involvement of small joints is also seen in case of systemic disorders like rheumatoid arthritis, psoriasis etc.

Of the various types of joint pain, osteoarthritis is the most commonly seen joint problem. It is estimated that 9.6% of men and 18% of women above 60 years of age have symptomatic osteoarthritis. This condition is associated with degenerative changes of the joint and most commonly affects the knees, hips, spine and hands.

To know the exact cause of the joint pain, your doctor may advise various radiological and laboratory tests. In most cases, joint pain is treated with medications such as painkillers to provide symptomatic relief or with medications that treat the underlying cause of pain. In a few cases, surgery is also recommended. Other therapies such as exercise, yoga, and physiotherapy are also known to be useful in reducing joint pain. 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 Knees Hips Spine Hands Shoulder Elbow Ankle Mimicking Conditions Neuropathic pain Muscle spasms Necessary health tests/imaging X-Ray Both Knees Standing AP & Lateral Views MRI Both Knee Joints Bone Densitometry Whole Body Complete Blood Count (CBC) Erythrocyte Sedimentation Rate C-Reactive Protein Quantitative Uric Acid AntiNuclear Antibody Rheumatoid Arthritis Panel HLA-B27 PCR Calcium Vitamin D (25 - OH) Treatment NSAID analgesics:Ibuprofen, Diclofenac & Paracetamol Narcotics: Tramadol & Morphine Muscle relaxants: Cyclobenzaprine Corticosteroids: Prednisolone Disease-modifying anti-rheumatic drugs (DMARDs): Methotrexate and Leflunomide  
Antigout drugs: Allopurinol & Colchicine Surgery: Synovectomy, Osteotomy & Joint replacement surgery Specialists to consult Orthopedic Rheumatologist See All Symptoms Of Joint Pain

The following symptoms commonly occur with joint pains - Pain and tenderness around the joint Redness, warmth or swelling around the joint Joint stiffness Reduced range of motion of the joint Feeling of locking sensation, where the joint feels locked in a particular position Severe pain that may radiate to surrounding body parts Weakness of the muscles surrounding the joint

Risk Factors Of Joint Pain

Joint pain is usually associated with the following risk factors: Previous injury to a joint Repeatedly use and/or overuse of a joint and muscle Chronic medical conditions associated with arthritis Old age Depression, anxiety or stress Overweight Poor nutritional health Immunocompromising diseases Types Of Joint Pain

Joint pain refers to a feeling of discomfort in the joints, such as knee joint, hip joint, ankle joint, spine, etc. Joint pains may occur in any joint of the body. There are two major types of joint pains:

Acute joint pain: This may affect a single joint, such as in cases of an injury or acute infection of the joint, or it may affect multiple joints, such as post-viral fever joint pains. Acute pain is usually sudden in onset and may last up to a few days. It usually responds well to conventional treatments and may get cured completely.

Chronic joint pain: Joint pains lasting more than a few weeks are called chronic joint pains. They may occur due to age-related degenerative changes in the joints known as osteoarthritis or may be due to other diseases of the bones and joints, such as rheumatoid arthritis, gout, etc. Chronic joint pains may affect a single joint or multiple joints. The pain is gradual in onset, and the severity may increase with time. Chronic joint pains are difficult to treat and may or may not recover completely. Causes Of Joint Pain

There are various causes of joint pain, such as:

Injuries: Injuries to the joint, such as contusion, ligament sprains or tears, fracture, joint dislocation, soft tissue injuries, etc., that occur due to trauma and cause acute joint pain.

Infections: Infections can occur in the joint as a complication of injury or internal infection, such as septic arthritis, and osteomyelitis. This may further cause redness, swelling, warmth, tenderness, and acute pain in the affected joint. Infections may also be chronic, such as tuberculosis infection of the joints.

Degenerative changes: Degenerative changes occur due to age-related wear and tear of the joint surface, cartilage, and surrounding soft tissues. Degenerative changes of the joint, also known as osteoarthritis, are the most common cause of joint pains. Osteoarthritis most commonly affects the knees, hips, spine, and hands.

Chronic inflammation: Repetitive mild trauma to the joint and surrounding structures causes chronic inflammatory changes, such as tendinitis, bursitis, etc. Certain diseases also cause chronic inflammation in the joints which is an important cause of joint pain like gout.

Systemic Diseases: Systemic and genetic diseases associated with involvement of the bones and joints and cause joint pains are: Ankylosing spondylitis - a disease with a genetic predisposition that affects the spine Fibromyalgia - a chronic condition characterized by widespread musculoskeletal pain Avascular Necrosis - a condition in which blood supply to the joints is affected, leading to the death of bone tissue. This commonly affects the hip joints. Bone Cancer - Osteosarcoma, leukemia and other types of bone cancers that spread to bones and joints can cause severe joint pains. Paget’s Disease - in this disease, the bones become abnormally shaped and brittle, which can cause severe joint pains.Rickets - a deficiency of vitamin D that causes the bones to weaken and may cause joint pains. Autoimmune disorders: Certain autoimmune diseases can involve joints and cause joint pains are: Rheumatoid Arthritis - a condition characterized by chronic inflammation, stiffness, and deformity of the joints. It commonly affects the small joints of the hands in initial phase of disease. Systemic Lupus Erythematosus - an autoimmune disease that causes inflammation and pain in multiple joints apart from involvement of other organ systems of the body.

Miscellaneous causes: There are many other causes of joint pains, such as viral fever, Lyme disease, sarcoidosis, juvenile idiopathic arthritis, etc. Take a break after every 2-3 minutes while texting to ease strain on your fingers & hands In this age of technology, we are addicted to our phones and laptops. But the constant, repetitive motions of our hands while texting, typing or holding the phone puts strains on our shoulder joints and joints of our fingers. It is advisable to take a break after every 2-3 minutes while texting. Also, opt for simple stretching exercises to keep your wrist and hand joints in good condition. Boost your exercise schedule with our range of workout essentials. Shop Now! Diagnosis Of Joint Pain

The following evaluations are performed by the doctor to evaluate joint pain and establish a cause-

History and physical examination

The doctor will take a detailed history of the onset of symptoms, perform a thorough physical examination, and check for joint stiffness, inflammation around the joint, joint mobility, muscle spasms, muscle strength, etc., to evaluate the affected joints.

Imaging studies

X-Rays: X-Ray studies of the affected joint are performed to evaluate the bony changes in and around the affected joint. Based on the location of the pain, your doctor may advise you to go for:

X-Ray Both Knee Standing AP & Lateral Views X-Ray Hip Joint AP View X-Ray Cervical Spine AP & Lateral X-Ray Lumbar Spine AP & Lateral X-Ray Right Ankle AP & Lat View X-Ray Right Wrist AP & Lat View MRI: MRI scans of the affected joints are performed to perform in-depth study of the bony and soft tissue changes occurring in the affected joint. These include:

MRI Both Knee Joints MRI Both Hip Joint MRI Screening of Whole Spine MRI Ankle Joint MRI Shoulder Joint

Other imaging studies: Bone Densitometry Whole Body - to check for concomitant osteoporosis, a condition where the bones lack calcium and become brittle and weak.

Laboratory tests Complete Blood Count (CBC), Erythrocyte Sedimentation Rate, C-Reactive Protein Quantitative to detect any ongoing infection or inflammation in the body. Serum Uric Acid in suspected Gout. Anti Nuclear Antibody to check for auto-immune diseases. Rheumatoid Arthritis Panel in cases of suspected Rheumatoid Arthritis. It consists of 3 tests - antinuclear antibody, anti-cyclic citrullinated peptide antibody, and rheumatoid factor. HLA-B27, PCR in case of suspected ankylosing spondylitis. Serum Calcium - to check for calcium deficiency which plays an important part in bone and joint pains. Vitamin D (25 - OH) - to check for Vitamin D deficiency which plays an important role in absorbing calcium into the body. Other tests like synovial fluid analysis, tissue biopsy, etc., may be performed for certain conditions. Celebs affected Hrithik Roshan Famous Bollywood actor and dancer Hrithik Roshan has Ankylosing Spondylitis. Kathleen Turner Kathleen Turner was one of Hollywood’s biggest celebrities until she had rheumatoid arthritis and had to take a break from her career. Prevention Of Joint Pain

Certain conditions that cause joint pain cannot be prevented. A few things that can help prevent the occurrence of severe joint pains and maintain the overall health of your joints are: Following a healthy diet rich in calcium and other minerals. Enough exposure to the morning sunlight to ensure a sufficient level of Vitamin D in the body. Regular exercise to maintain strength and mobility in the joints. Following correct ergonomics while weight lifting and exercising. Avoiding sudden, jerky, and twisting movements of the joints. Weight loss lessens strain on joints. With our modern sedentary and stressful lifestyle, the chances of developing joint pain increases manifold. Here are 7 everyday habits that are harming your joints. Click Here To Read!

Specialist To Visit

When symptoms of joint pain start to become bothersome and it becomes difficult to perform daily activities, or you have sustained an injury to the joints, it is essential to visit a doctor who will diagnose and treat the condition. Specialists who can help in the diagnosis of the condition such as fractures, arthritis, etc. include: General physician Orthopedician Rheumatologists Treatment Of Joint Pain

Depending on the cause and severity of the joint pain, your doctor may advise you to take medications to relieve the pain or go for surgery.

Medical management It involves use of medications to relieve the symptoms and treat the underlying cause of the joint pain such as arthritis or gout. In some cases, medications to improve overall bone and joint health can be prescribed. Symptom Relief NSAID Analgesics help relieve pain and inflammation. These medicines must always be consumed with meals, as taking them on an empty stomach can irritate the gastric lining. Some of the common drugs are Ibuprofen, Diclofenac, Paracetamol. Narcotics (opioids) i.e. tramadol, morphine, may be required for severe pain, which is not relieved by the first line of medications. These tablets must be used only as prescribed by the physician as they are potentially habit-forming. Muscle Relaxants help relieve the painful spasms and stiffness associated with osteoarthritis of the spine. Examples include Cyclobenzaprine. Corticosteroids may be prescribed for a short duration or even as an injection to address resistant pain. These include drugs containing prednisolone. Topical application of analgesic ointments (diclofenac), sprays and rubefacient can help with symptomatic pain relief. Dietary supplements, like glucosamine, calcium, vitamin D3 may help in improvement. Intra-articular Injections can be given In cases of severe pain that does not respond to medications, a hydrocortisone injection may be given in the joint to offer quick relief. In some cases, hyaluronic acid injections are also given in the joint to aid joint lubrication. Treatment of underlying cause Rheumatoid arthritis: Disease-modifying anti-rheumatic drugs (DMARDs), such as Methotrexate and Leflunomide are used to treat rheumatoid arthritis. Gout: Allopurinol formulations and colchicine formulations are used to treat Gout. Arthritis: Antibiotics are also used to treat septic arthritis. Surgical management and other invasive procedures

In this, use of injections to relieve the pain or corrective surgeries to improve the condition can be advised. Joint replacement surgery is another common procedure used to treat joint pain. Corrective surgery Corrective surgeries like synovectomy, osteotomy, laminectomy, spinal fusion, fracture reduction, etc., are performed in the case of severe joint deformities that cause limitation of function and pain. Joint replacement surgery For severely damaged knees and hips, a prosthesis may be fitted, and the worn-out joints are completely replaced by mechanical joints. This can be done for hip, knee and shoulder joints. surgeon removes parts of the patient’s bone and implants an artificial joint made from metal or plastic. This procedure has had excellent results and the majority of patients feel long-lasting pain relief after this type of surgery. Home Care For Joint Pain

Along with medications, the following home care tips can help manage symptoms and lead to the best possible disease outcomes- Take a wholesome, balanced diet rich in calcium and other minerals. Follow the exercise routine suggested by the doctor or physiotherapist. Hot fomentation or icing (as applicable) and application of topical analgesic preparations help relieve pain and stiffness. Gentle massage performed by a massage therapist can aid relaxation and promote pain relief. Use joint supports, such as knee caps, cervical collar, lumbosacral belt, wrist cuffs, etc., to help support the frail joints. The use of walking aids, such as a cane or walker, may help offload the diseased joints, promote safer walking, and offer pain relief. Avoid lifting heavyweights. When weight training is a part of an exercise program, it must be done with extreme caution and correct ergonomic posture. Change the mattress and sleeping pillow if not proper and use those that offer good support and stabilize the spine. Did you know? RICE therapy is particularly important during the first 24 to 72 hours after a sprain or strain happens. RICE therapy indicates R- rest, I- ice , C- compression , E- elevation. Read For More! Complications Of Joint Pain

If join pain is left untreated, the following complications can occur - Complete loss of mobility and extreme stiffness in the joints rendering a patient bed-ridden or with severe walking issues. Deformities in the hands can hinder skillful activities, such as writing, sewing, etc. Chronic debilitating pain may hamper a patient’s quality of life, interfere with sleep, and be a source of anxiety or depression. Infection in the joints may spread to surrounding areas and may cause septicemia. Alternative Therapies Of Joint Pain

Along with medicines and topical analgesic preparations, various other treatment options help manage joint pains-

Exercise and yoga: Regular exercises and yoga focused on strengthening the joints and surrounding musculature and improving mobility help manage the pain and stiffness caused by arthritis and other joint conditions.

Massage: Gentle massage improves blood flow to the affected parts, promotes relaxation, and helps with pain relief. Massage must be performed only by a qualified massage therapist.

Physiotherapy: Physiotherapeutic modalities, such as Interferential Therapy (IFT) and Transcutaneous Electrical Nerve Stimulation (TENS), are very useful in pain relief, even from nerve pain. IFT and TENS use electric currents, applied via electrodes directly over the joint to stimulate the surrounding nerves and muscles. This leads to muscle relaxation and inhibition of the painful sensation. The rehabilitation exercises focus on strengthening and correcting weight-bearing of the joint and surrounding muscles, improving the overall strength and mobility of the affected joints.

Acupressure and acupuncture: Chronic joint pain may respond to acupuncture or acupressure therapy, an alternative form of therapy that works by applying pressure or noxious stimuli on the peripheral trigger points. Accupressure and accupuncture must be performed by a qualified therapist or under supervision of a qualified therapist only.

Ayurveda: There are various Ayurvedic preparations in the form of oils and liniments such as menthol and camphor oil, sesame oil, etc. to be applied locally at the site of pain. They provide good relief from symptoms and promote joint health.

Homeopathy: Homeopathic preparations in the form of injections or oral drops/pills, such as Rhus Toxicodendron, Arnica Montana, Solanum Dulcamara, etc., are known to improve pain and other troublesome symptoms of patients with joint pain.

External orthoses support: Using knee caps, cervical collars, lumbosacral belts, and walking aids like a stick or walker offer much-needed support to the degenerative joints and are useful in alleviating joint pain. Use them if advised by your doctor and exactly as instructed as misuse may cause more harm to the joints. Chronic joint pains and aches can be quite disabling. In addition to conventional treatment, here are some excellent essential oils that you could try to relieve chronic joint pains. Click Here To Read!

Living With Joint Pain

Joint pain has a great impact on an individual’s quality of life. Severe, chronic, and debilitating pain may interfere with basic activities, such as walking, thereby leading to restrictions in movements and travel. Often, chronic pain is a source of anxiety and depression in patients with osteoarthritis, rheumatoid arthritis, and other joint diseases. They find themselves withdrawn from society and the community at large. Joining knee care, spine care, and other such musculoskeletal health clubs may help these patients deal with joint issues and bond with others suffering from similar pain. Winters are known to be the worst for people with joint pain because change in weather causes changes in the atmospheric pressure resulting in more inflamed tissue leading to swelling and pain. Here are a few lifestyle changes one can incorporate into their routine life to ease off joint pains, especially during winter. 1. Supplement bone & joint healthy foods: Stock up dairy products and spend at least 15 minutes in sunlight daily to increase the intake of vitamin D. Include foods rich in omega-3 fats such as salmon, nuts, fish oil in your diet as these ease inflammation. Foods rich in vitamin K are helpful because of its pain-soothing properties. Include greens in your meal such as spinach, fenugreek (methi), cabbage, kale, etc. Foods rich in vitamin C halt cartilage loss associated with arthritis. Add juicy oranges, sweet red peppers, tomatoes, amla and other vitamin C-rich foods in your diet. 2. Exercise regularly:Go for a 30-minute walk daily. If cold weather makes you lazy to go out in the mornings, go for an afternoon walk. Also, stretch your muscles as it helps maintain your mobility.

1. Stay hydrated: Drink plenty of water in winters as dehydration reduces flexibility and increases stiffness.
2. Get a massage: Massage therapy by a professional helps in relaxing the muscles around the painful joints, thereby reducing pain and making you more mobile.
3. Cover up: Try to keep painful joints covered with a sleeve or wrap. Keeping them warm helps reduce pain and increases mobility. Using a muscle relaxant gel on the aching joints and then covering up has been seen to be very helpful.
4. Use hot packs:Hot packs/hot baths/steam helps to soothe the painful joints. Heat stimulates blood flow, which brings healing nutrients to the affected area and inhibits the pain messages being sent to the brain.
5. Take medication on time: Do not forget to take your medications as advised by your doctor. If you suffer from chronic joint pain, consult your doctor for painkillers. Do not self-medicate. Also, go for regular doctor consultation, especially if your symptoms recur/worsen.
6. Watch your weight: Major joints like the hips, knees and back carry one’s body-weight while performing daily activities. The pressure gets compounded depending upon the nature of activity and more the pressure; more is the wear and tear that the joints are subject to. So lose weight.
7. Improve your posture: Consciously maintaining a correct upright posture is paramount. While you are standing, your spine should be straight, buttocks pressed against each other, belly in and chest out. When sitting, your core should firmly rest on the chair’s backrest and it is advisable that you sleep on a firm mattress facing sky-wards. Do not slouch when watching TV or using a laptop.
8. Get enough sleep: Sleep is the best healer is a saying that is all the more true for our joints. Our bones, muscles and tendons are never off-duty during an average day so letting them recover is something that cannot be skipped. A tired tissue is more susceptible to injury. Frequently Asked Questions Can I play sports if I have joint pain? Will I need joint replacement surgery if I have osteoarthritis? Which foods should I avoid if I have joint pain? Does massage help relieve joint pain? References Hardin JG. Arthralgia. In: Walker HK, Hall WD, Hurst JW, editors. Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Boston: Butterworths; 1990. Chapter 160. Morden A, Jinks C, Ong BN. Understanding Help Seeking for Chronic Joint Pain: Implications for Providing Supported Self-Management. Qual Health Res. 2014 Jul;24(7):957-968. Joint Pain. NHS UK Joint Pain and Arthritis. Centers for Disease Control and Prevention. Chronic Rheumatic Conditions. World Health Organisation. Kenneth W. Lin. Treatment of Knee Osteoarthritis. Am Fam Physician. 2018 Nov 1;98(9):603-606. Long L, Ernst E. Homoeopathic remedies for the treatment of osteoarthritis: a systematic review. Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews [Internet]. York (UK): Centre for Reviews and Dissemination (UK); 1995. Osteoarthritis. National Health Portal of India.

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