## A1C

A1C is a blood test for type 2 diabetes and prediabetes. It measures your average blood glucose, or blood sugar, level over the past 3 months. Doctors may use the A1C alone or in combination with other diabetes tests to make a diagnosis. They also use the A1C to see how well you are managing your diabetes. This test is different from the blood sugar checks that people with diabetes do every day. Your A1C test result is given in percentages. The higher the percentage, the higher your blood sugar levels have been. A normal A1C level is below 5.7%Prediabetes is between 5.7 to 6.4%. Having prediabetes is a risk factor for getting type 2 diabetes. People with prediabetes may need retests every year. Type 2 diabetes is above 6.5%If you have diabetes, you should have the A1C test at least twice a year. The A1C goal for many people with diabetes is below 7. It may be different for you. Ask what your goal should be. If your A1C result is too high, you may need to change your diabetes care plan. NIH: National Institute of Diabetes and Digestive and Kidney Diseases.

## Abdominal Pain

Abdominal Pain Your abdomen extends from below your chest to your groin. Some people call it the stomach, but your abdomen contains many other important organs. Pain in the abdomen can come from any one of them. The pain may start somewhere else, such as your chest. Severe pain doesn't always mean a serious problem. Nor does mild pain mean a problem is not serious. Call your health care provider if mild pain lasts a week or more or if you have pain with other symptoms. Get medical help immediately if: You have abdominal pain that is sudden and sharp. You also have pain in your chest, neck or shoulder. You You're vomiting blood or have blood in your stool. You Your abdomen is stiff, hard and tender to touch You can't move your bowels, especially if you're also vomiting.

## Abortion

Per a court order, HHS is required to restore this website as of February 14, 2025, at 11:59 p.m. Any information on this page promoting gender ideology is extremely inaccurate, and disconnected from the immutable biological reality that there are two sexes, male and female. The Trump Administration rejects gender ideology and condemns the harms it causes to children, by promoting their chemical and surgical

mutilation, and to women, by depriving them of their dignity, safety, well-being, and opportunities. This page does not reflect biological reality and therefore the Administration and this Department rejects it. An induced abortion is a procedure to end a pregnancy. It can be done two different ways. Medication abortion (also called medical abortion) Procedural abortion. An induced abortion is different from a spontaneous abortion. That is the loss of a pregnancy before the 20th week of pregnancy. It is more commonly known as a miscarriage, If you are thinking of having an induced abortion, talk with your health care provider. Your provider can explain how the procedures are done, as well as the risks and benefits of each.

Abscess

An abscess is a pocket of pus. You can get an abscess almost anywhere in your body. When an area of your body becomes infected, your body's immune system tries to fight the infection. White blood cells go to the infected area, collect within the damaged tissue, and cause inflammation. During this process, pus forms. Pus is a mixture of living and dead white blood cells, germs, and dead tissue. Bacteria, viruses, parasites and swallowed objects can all lead to abscesses. Skin abscesses are easy to detect. They are red, raised and painful. Abscesses inside your body may not be obvious and can damage organs, including the brain, lungs and others. Treatments include drainage and antibiotics.

Acne

Acne is a common skin disease that causes pimples. Pimples form when hair follicles

under your skin clog up. Most pimples form on the face, neck, back, chest, and shoulders. Anyone can get acne, but

it is common in teenagers and young adults. It is not serious, but it can cause scars. No one knows exactly what causes acne. Hormone changes, such as those during the teenage

years and pregnancy, probably play a role. There are many myths about what causes acne. Chocolate and greasy foods are often

blamed, but there is little evidence that foods have much effect on acne in most people.

Another common myth is that dirty skin causes acne; however, blackheads and pimples are not caused by dirt. Stress doesn't cause acne, but stress can make it worse. If you have acne: Clean your skin gently Try not to touch your skin. Avoid the sun Treatments for acne include medicines and creams. NIH: National Institute of Arthritis and Musculoskeletal and Skin

## Acoustic Neuroma

An acoustic neuroma is a benign tumor that develops on the nerve that connects the ear to the brain. The tumor usually grows slowly. As it grows, it presses against the hearing and balance nerves. At first, you may have no symptoms or mild symptoms. They can include Loss of hearing on one side Ringing in ears Dizziness and balance problems. The tumor can also eventually cause numbness or paralysis of the face. If it grows large enough, it can press against the brain, becoming life-threatening. Acoustic neuroma can be difficult to diagnose, because the symptoms are similar to those of middle ear problems. Ear exams, hearing tests, and scans can show if you have it. If the tumor stays small, you may only need to have it checked regularly. If you do need treatment, surgery and radiation are options. If the tumors affect both hearing nerves, it is often because of a genetic disorder called neurofibromatosis. NIH: National Institute on Deafness and Communication Disorders.

## Acupuncture

Acupuncture has been practiced in China and other Asian countries for thousands of years. Acupuncture involves stimulating specific points on the body. This is most often done by inserting thin needles through the skin, to cause a change in the physical functions of the body. Research has shown that acupuncture reduces nausea and vomiting after surgery and chemotherapy. It can also relieve pain. Researchers don't fully understand how acupuncture works. It might aid the activity of your body's pain-killing chemicals. It also might affect how you release chemicals that regulate blood pressure and flow. NIH: National Center for Complementary and Integrative Health.

## Acute Bronchitis

Bronchitis is an inflammation of the bronchial tubes, the airways that carry air to your lungs. It causes a cough that often brings up mucus. It can also cause shortness of breath, wheezing, a low fever, and chest tightness. There are two main types of bronchitis: acute and chronic. Most cases of acute bronchitis get better within several days. But your cough can last for several weeks after the infection is gone. The same viruses that cause colds and the flu often cause acute bronchitis. These viruses spread through the air when people cough, or though physical contact (for example, on unwashed hands). Being exposed to tobacco smoke, air pollution, dusts, vapors, and fumes can also cause acute bronchitis. Less often, bacteria can also cause acute bronchitis. To diagnose acute bronchitis, your health care provider will ask about your symptoms and listen to your breathing. You may also have other tests. Treatments include rest, fluids, and aspirin (for adults) or acetaminophen to treat fever. A humidifier or steam can also help. You may need inhaled medicine to open your airways if you are wheezing. Antibiotics won't help if the cause is viral. You may get antibiotics if the cause is bacterial. NIH: National Heart, Lung, and Blood Institute.

Acute Flaccid Myelitis

What is acute flaccid myelitis (AFM)? Acute flaccid myelitis (AFM) is a neurologic disease. It is rare, but serious. It affects an area of the spinal cord called gray matter. This can cause the muscles and reflexes in the body to become weak. Because of these symptoms, some people call AFM a "polio-like" illness. But it is different from polio. AFM is not caused by polioviruses. What causes acute flaccid myelitis (AFM)? AFM can be caused by several different viruses. Researchers think that enteroviruses have been causing the recent increases in the number of children with AFM. AFM can also be caused by other viruses, including flaviviruses, herpesviruses, and adenoviruses. Most people with AFM had a mild respiratory illness or fever (like you would get from a viral infection) before they got AFM. Who is more likely to develop acute flaccid myelitis (AFM)? Anyone can get AFM, but most cases (more than 90%) have been in young children. What are the symptoms of acute flaccid myelitis (AFM)? Most people with AFM will suddenly have Arm or leg weakness. A loss of muscle tone and reflexes. Some people also have other symptoms, including Facial drooping/weakness. Trouble moving the eyes drooping eye lids. Trouble swallowing Slurred speech Pain in the arms, legs, back, or neck Sometimes. AFM can weaken the muscles that you need for breathing. This can lead to respiratory failure, which is very serious. If you get respiratory failure, you

may need to use a ventilator (breathing machine) to help you breathe. If you or your child develops any of these symptoms, get medical care right away. How is acute flaccid myelitis (AFM) diagnosed? AFM causes many of the same symptoms as other neurologic diseases, such as transverse myelitis and Guillain-Barre syndrome. This can make it difficult to diagnose. To find out if you have AFM, your doctor may use: A neurologic exam, including looking at where there is weakness, poor muscle tone, and decreased reflexes. An MRI to look at the spinal cord and brain. Lab tests on the cerebrospinal fluid (the fluid around the brain and spinal cord). Nerve conduction and electromyography (EMG) studies. These tests check nerve speed and the response of muscles to the messages from the nerves. It is important that the tests are done as soon as possible after the symptoms start. What are the treatments for acute flaccid myelitis (AFM)? There is no specific treatment for AFM. A doctor who specializes in treating brain and spinal cord illnesses (neurologist) may recommend treatments for specific symptoms. For example, physical and/or occupational therapy may help with arm or leg weakness. Researchers do not know the long-term outcomes of people who get. AFM Can acute flaccid myelitis (AFM) be prevented? There is no specific way to prevent AFM. But you can take steps to prevent getting sick from a virus by Washing your hands often with soap and water. Avoiding touching your face with unwashed hands. Avoiding close contact with people who are sick. Cleaning and disinfecting surfaces that you frequently touch, including toys. Covering coughs and sneezes with a tissue or upper shirt sleeve, not hands. Staying home when sick. Centers for Disease Control and Prevention.

Acute Lymphocytic Leukemia

What is leukemia? Leukemia is a term for cancers of the blood cells. Leukemia starts in blood-forming tissues such as the bone marrow. Your bone marrow makes the cells which will develop into white blood cells, red blood cells, and platelets. Each type of cell has a different job. White blood cells help your body fight infection. Red blood cells deliver oxygen from your lungs to your tissues and organs. Platelets help form clots to stop bleeding. When you have leukemia, your bone marrow makes large numbers of abnormal cells. This problem most often happens with white blood cells. These abnormal cells build up in your bone marrow and blood. They crowd out the healthy blood cells and make it hard for your cells and blood to do their work. What is acute lymphocytic leukemia (ALL)? Acute lymphocytic leukemia is a type of acute leukemia. It's also called ALL and acute lymphoblastic leukemia. "Acute" means that it usually gets worse quickly if

it's not treated. ALL is the most common type of cancer in children. It can also affect adults. In ALL, the bone marrow makes too many lymphocytes, a type of white blood cell. These cells normally help your body fight infection. But in ALL, they are abnormal and cannot fight infection very well. They also crowd out the healthy cells, which can lead to infection, anemia, and easy bleeding. These abnormal cells can also spread to other parts of the body, including the brain and spinal cord. What causes acute lymphocytic leukemia (ALL)? ALL happens when there are changes in the genetic material (DNA) in bone marrow cells. The cause of these genetic changes is unknown. However, there are certain factors that raise your risk of ALL. Who is at risk for acute lymphocytic leukemia (ALL)? The factors that raise your risk of ALL include. Being male. Being white Being over age 70 Having had chemotherapy or radiation therapy. Having been exposed to high levels of radiation. Having certain genetic disorders, such as Down syndrome. What are the symptoms of acute lymphocytic leukemia (ALL)? The signs and symptoms of ALL include Weakness or feeling tired, Fever or night sweats, Easy bruising or bleeding. Petechiae, which are tiny red dots under the skin. They are caused by bleeding, Shortness of breath. Weight loss or loss of appetite, Pain in the bones or stomach, Pain or feeling of fullness below the ribs, Swollen lymph nodes - you may notice them as painless lumps in the neck, underarm, stomach, or groin, Having had many infections. How is acute lymphocytic leukemia (ALL) diagnosed? Your health care provider may use many tools to diagnose ALL and figure out which subtype you have A physical exam, A medical history, Blood tests, such as

Complete blood count (CBC) with differential, Blood chemistry tests such as a basic metabolic panel (BMP), comprehensive metabolic panel (CMP), kidney function tests, liver function tests, and electrolyte panel Blood smear, Bone marrow tests. There are two main types - bone marrow aspiration and bone marrow biopsy. Both tests involve removing a sample of bone marrow and bone. The samples are sent to a lab for testing. Genetic tests to look for gene and chromosome changes. If you are diagnosed with ALL, you may have additional tests to see whether the cancer has spread. These include imaging tests and a lumbar puncture, which is a procedure to collect and test cerebrospinal fluid (CSF). What are the treatments for acute lymphocytic leukemia (ALL)? Treatments for ALL include: Chemotherapy Radiation therapy Chemotherapy with stem cell transplant Targeted therapy, which uses drugs or other substances that attack specific cancer cells with less harm to normal cells Treatment is usually done in two phases: The goal of the first phase is to kill the leukemia cells in the blood and bone marrow. This treatment puts the leukemia into remission. Remission means that the signs

and symptoms of cancer are reduced or have disappeared. The second phase is known as post-remission therapy. Its goal is to prevent a relapse (return) of the cancer. It involves killing any remaining leukemia cells that may not be active but could begin to regrow. Treatment during both phases also usually includes central nervous system (CNS) prophylaxis therapy. This therapy helps prevent the spread of leukemia cells to the brain and spinal cord. It may be high dose chemotherapy or chemotherapy injected into the spinal cord. It also sometimes includes radiation therapy. NIH: National Cancer Institute.

Acute Myeloid Leukemia

What is leukemia? Leukemia is a term for cancers of the blood cells. Leukemia starts in blood-forming tissues such as the bone marrow. Your bone marrow makes the cells which will develop into white blood cells, red blood cells, and platelets. Each type of cell has a different job: White blood cells help your body fight infection, Red blood cells deliver oxygen from your lungs to your tissues and organs Platelets help form clots to stop bleeding. When you have leukemia, your bone marrow makes large numbers of abnormal cells. This problem most often happens with white blood cells. These abnormal cells build up in your bone marrow and blood. They crowd out the healthy blood cells and make it hard for your cells and blood to do their work. What is acute myeloid leukemia (AML)? Acute myeloid leukemia (AML) is a type of acute leukemia. "Acute" means that the leukemia usually gets worse quickly if it's not treated. In AML, the bone marrow makes abnormal myeloblasts (a type of white blood cell), red blood cells, or platelets. When the abnormal cells crowd out the healthy cells, it can lead to infection, anemia, and easy bleeding. The abnormal cells can also spread outside the blood to other parts of the body. There are several different subtypes of AML. The subtypes are based on how developed the cancer cells are when you get your diagnosis and how different they are from normal cells. What causes acute myeloid leukemia (AML)? AML happens when there are changes in the genetic material (DNA) in bone marrow cells. The cause of these genetic changes is unknown. However, there are certain factors that raise your risk of AML. Who is at risk for acute myeloid leukemia (AML)? The factors that raise your risk of AML include: Being male Smoking, especially after age 60Having had chemotherapy or radiation therapy Treatment for acute lymphoblastic leukemia (ALL) as a child Exposure to the chemical benzene. A history of another blood disorder such as myelodysplastic syndrome. What are the symptoms of acute myeloid leukemia (AML)? The signs and symptoms of AML include: Fever Shortness of breath Easy bruising or

bleeding Petechiae, which are tiny red dots under the skin. They are caused by bleeding. Weakness or feeling tired, Weight loss or loss of appetite Bone or joint pain, if the abnormal cells build up near or inside the bones. How is acute myeloid leukemia (AML) diagnosed? Your health care provider may use many tools to diagnose AML and figure out which subtype you have: A physical exam, A medical history Blood tests, such as a complete blood count (CBC) and blood smear Bone marrow tests. There are two main types - bone marrow aspiration and bone marrow biopsy. Both tests involve removing a sample of bone marrow and bone. The samples are sent to a lab for testing. Genetic tests to look for gene and chromosome changes. If you are diagnosed with AML, you may have additional tests to see whether the cancer has spread. These include imaging tests and a lumbar puncture, which is a procedure to collect and test cerebrospinal fluid (CSF). What are the treatments for acute myeloid leukemia (AML)? Treatments for AML include: Chemotherapy Radiation therapy Chemotherapy with stem cell transplant Other anticancer medicines Which treatment you get often depends on which subtype of AML you have.

Treatment is usually done in two phases: The goal of the first phase is to kill the leukemia cells in the blood and bone marrow. This puts the leukemia into remission. Remission means that the signs and symptoms of cancer are reduced or have disappeared. The second phase is known as post-remission therapy. Its goal is to prevent a relapse (return) of the cancer. It involves killing any remaining leukemia cells that may not be active but could begin to regrow. NIH: National Cancer Institute.

Addison Disease

Your adrenal glands are just above your kidneys. The outside layer of these glands makes hormones that help your body respond to stress and regulate your blood pressure and water and salt balance.  Addison disease happens if the adrenal glands don't make enough of these hormones. A problem with your immune system usually causes Addison disease. The immune system mistakenly attacks your own tissues, damaging your adrenal glands. Other causes include infections and cancer. Symptoms include: Weight loss Muscle weakness Fatigue that gets worse over time Low blood pressure Patchy or dark skin Lab tests can confirm that you have Addison disease.  If you don't treat it, it can be fatal. You will need to take hormone pills for the rest of your life.  If you have Addison disease, you should carry an emergency ID. It should say that you have the disease, list your medicines and say how much you need in an emergency.

NIH: National Institute of Diabetes and Digestive and Kidney Diseases.

Adenoids

What are adenoids? Adenoids are a patch of tissue that is high up in the throat, just behind the nose. They, along with the tonsils, are part of the lymphatic system. The lymphatic system clears away infection and keeps body fluids in balance. The adenoids and tonsils work by trapping germs coming in through the mouth and nose. Adenoids usually start to shrink after about age 5. By the teenage years, they are almost completely gone. By then, the body has other ways to fight germs. What are enlarged adenoids? Enlarged adenoids are adenoids that are swollen. It is a common problem in children. What causes enlarged adenoids? Your child's adenoids can be enlarged, or swollen, for different reasons. It may just be that your child had enlarged adenoids at birth. Adenoids can also become enlarged when they are trying to fight off an infection. They might stay enlarged even after the infection is gone. What problems can enlarged adenoids cause? Enlarged adenoids can make it hard to breathe through the nose. Your child might end up breathing only through the mouth. This may cause:A dry mouth, which can also lead to bad breath Cracked lips. A runny nose. Other problems that enlarged adenoids can cause include: Loud breathing Snoring Restless sleep, Sleep apnea, a disorder that causes you to repeatedly stop breathing during sleep Ear infections. How can enlarged adenoids be diagnosed? To find out if your child has enlarged adenoids, the health care provider will Ask about your child's medical history, including asking about your child's symptoms Check your child's ears, throat, and mouth. Feel your child's neck, Since the adenoids are higher up than the throat, the provider cannot see them just by looking through your child's mouth. To check the size of your child's adenoids, your provider may use A special mirror in the mouth. A long, flexible tube with a light (an endoscope) An x-ray. What are the treatments for enlarged adenoids? The treatment depends on what is causing the problem. If the symptoms are not too bad, your child may not need treatment. If treatment is needed, your child may get nasal spray to reduce the swelling or antibiotics if the provider thinks that there is a bacterial infection. In some cases, your child may need an adenoidectomy. What is an adenoidectomy and why might I my child need one? An adenoidectomy is surgery to remove the adenoids. The provider may recommend this surgery if Your child has repeated infections of the adenoids. Sometimes the infections can also cause ear infections and fluid buildup in the middle ear. Taking antibiotics doesn't get rid of a

bacterial infection of the adenoids. The enlarged adenoids block the airways. If there is also a problem with the tonsils, your child will probably have a tonsillectomy (removal of the tonsils) at the same time that the adenoids are removed. After having the surgery, your child usually goes home the same day. Your child will probably have some throat pain, bad breath, and a runny nose. It can take several days to feel all better.

## Adhesions

Adhesions are bands of scar-like tissue. Normally, internal tissues and organs have slippery surfaces so they can shift easily as the body moves. Adhesions cause tissues and organs to stick together. They might connect the loops of the intestines to each other, to nearby organs, or to the wall of the abdomen. They can pull sections of the intestines out of place. This may block food from passing through the intestine. Adhesions can occur anywhere in the body. But they often form after surgery on the abdomen. Almost everyone who has surgery on the abdomen gets adhesions. Some adhesions don't cause any problems. But when they partly or completely block the intestines, they cause symptoms such as Severe abdominal pain or cramping Vomiting Bloating. An inability to pass gas Constipation Adhesions can sometimes cause infertility in women by preventing fertilized eggs from reaching the uterus. No tests are available to detect adhesions. Doctors usually find them during surgery to diagnose other problems. Some adhesions go away by themselves. If they partly block your intestines, a diet low in fiber can allow food to move easily through the affected area. If you have a complete intestinal obstruction, it is life-threatening. You should get immediate medical attention and may need surgery. NIH: National Institute of Diabetes and Digestive and Kidney Diseases.

## Adrenal Gland Cancer

Your adrenal, or suprarenal, glands are located on the top of each kidney. These glands produce hormones that you can't live without, including sex hormones and cortisol, which helps you respond to stress and has many other functions. A number of disorders can affect the adrenal glands, including tumors. Tumors can be either benign or malignant. Benign tumors aren't cancer. Malignant ones are. Most adrenal gland tumors are benign. They usually do not cause symptoms and may not require treatment. Malignant adrenal gland cancers are uncommon. Types of tumors include: Adrenocortical carcinoma - cancer in the outer part of the gland Neuro blastoma, a type of childhood

cancer Pheochromocytoma - a rare tumor that is usually benign Symptoms depend on the type of cancer you have. Treatments may include surgery, chemotherapy, or radiation therapy.

Adrenal Gland Disorders

What are adrenal glands? Your adrenal glands are two small organs that sit on top of each kidney. The adrenal glands make different types of hormones you need to stay alive and healthy. Hormones are chemicals that travel in your bloodstream and control how different parts of your body work. The adrenal glands make the hormones cortisol, aldosterone, adrenaline, and noradrenaline. They also make hormones that your body uses to make sex hormones (estrogen and testosterone). All of these hormones do many important jobs, including: Turning food into energy and managing blood sugar levels Balancing salt and water Keeping blood pressure normal Responding to illness and stress (your "fight or flight" response). Timing when and how fast a child develops sexually Supporting pregnancy. What are adrenal gland disorders? When you have an adrenal gland disorder, your body makes too much or too little of one or more hormones. The symptoms depend on the type of problem you have and how much it affects the hormone levels in your body. There are many types of adrenal gland disorders, including: Addison's Disease - a condition in which the adrenal glands don't make enough cortisol Cushing's Syndrome - a condition caused by too much cortisol in the body, often from taking steroid medicines for a long time Aldosterone-producing adenoma - a benign tumor (not cancer) that makes too much aldosterone and may cause serious high blood pressure Hereditary paraganglioma-pheochromocytoma - an inherited condition causing different types of tumors that make adrenaline and other hormones. Some tumors may become cancerous. Adrenal gland cancer - cancerous tumors, including adrenocortical carcinoma and neuroblastoma Congenital Adrenal Hyperplasia (CAH) - a group of inherited disorders in which the adrenal glands don't make enough cortisol. The most common type is 21-hydroxylase deficiency (also called CAH1). In the United States, newborn babies get a blood test to see if they have CAH. People born with CAH may not have symptoms until childhood or later in life. What causes adrenal gland disorders? The cause of adrenal gland disorders depends on the type of disorder you have. Causes can include: Medicines such as steroids. A problem in another gland, such as the pituitary gland. The pituitary gland releases hormones that affect how the adrenal glands work. Changes in genes (mutations). These changes can cause the adrenal glands to

make too much or too little of one or more hormones. Infections, In many cases the cause of the problem isn't clear. How are adrenal gland disorders diagnosed? Health care providers use different tests to check for adrenal disorders depending on your symptoms and health history. For example, you may have tests of your blood, urine (pee), or saliva (spit). These tests check your hormone levels. Your provider may order x-rays, CT scans, or MRI scans to look for tumors. What are the treatments for adrenal gland disorders? Different types of adrenal gland disorders have different treatments. They include medicines and surgery. Radiation therapy is sometimes a treatment for tumors. There are treatments to cure certain adrenal gland disorders. For other disorders, treatments can manage your symptoms. NIH: National Institute of Child Health and Human Development.

## Advance Directives

What kind of medical care would you want if you were too ill or hurt to express your wishes? Advance directives are legal documents that allow you to spell out your decisions about end-of-life care ahead of time. They give you a way to tell your wishes to family, friends, and health care professionals and to avoid confusion later on. A living will tells which treatments you want if you are dying or permanently unconscious. You can accept or refuse medical care. You might want to include instructions on The use of dialysis and breathing machines. If you want to be resuscitated if your breathing or heartbeat stops Tube feeding Organ or tissue donation

A durable power of attorney for health care is a document that names your health care proxy. Your proxy is someone you trust to make health decisions for you if you are unable to do so. NIH: National Cancer Institute.

## After Surgery

After any operation, you'll have some side effects. There is usually some pain with surgery. There may also be swelling and soreness around the area that the surgeon cut. Your surgeon can tell you which side effects to expect. There can also be complications. These are unplanned events linked to the operation. Some complications are infection, too much bleeding, reaction to anesthesia, or accidental injury. Some people have a greater risk of complications because of other medical conditions. Your surgeon can tell you how you might feel and what you will be able to do - or not do - the first few days,

weeks, or months after surgery. Some other questions to ask are. How long you will be in the hospital. What kind of supplies, equipment, and help you might need when you go home. When you can go back to work. When it is ok to start exercising again? Are there any other restrictions in your activities? Following your surgeon's advice can help you recover as soon as possible. Agency for Healthcare Research and Quality.

## Air Pollution

Air pollution is a mixture of solid particles and gases in the air. Car emissions, chemicals from factories, dust, pollen and mold spores may be suspended as particles. Ozone, a gas, is a major part of air pollution in cities. When ozone forms air pollution, it's also called smog. Some air pollutants are poisonous. Inhaling them can increase the chance you'll have health problems. People with heart or lung disease, older adults and children are at greater risk from air pollution. Air pollution isn't just outside - the air inside buildings can also be polluted and affect your health. Environmental Protection Agency.

## Alcohol

Many Americans drink alcohol at least occasionally. The Dietary Guidelines for Americans say that adults of legal drinking age should either not drink or drink in moderation. Drinking less is better for your health than drinking more. Also, there are some people who should not drink at all. If you are going to drink, it's important to know how alcohol affects you and how much is too much. How does alcohol affect the body? Alcohol is a central nervous system depressant. This means that it is a drug that slows down brain activity. It can change your mood, behavior, and self-control. It can cause problems with memory and thinking clearly. Alcohol can also affect your coordination and physical control. Alcohol also has effects on the other organs in your body. For example, it can raise your blood pressure and heart rate. If you drink too much at once, it could make you throw up. Why are the effects of alcohol different from person to person? Alcohol's effects vary from person to person, depending on a variety of factors, including: How much you drink, How often you drink, Your age, Your sex, Your genetics, Your overall health, Whether or not you have a family history of alcohol problems. What is moderate drinking? For most women, moderate drinking is no more than 1 standard drink a day For most men, moderate drinking is no more than 2 standard drinks a day, Even though

moderate drinking may be safe for many people, there are still risks. Moderate drinking can raise the risk of death from certain cancers and heart diseases. What is a standard drink? In the United States, a standard drink is one that contains about 14 grams of pure alcohol, which is found in:12 ounces of regular beer (5% alcohol content)5 ounces of wine (12% alcohol content)1.5 ounces or a "shot" of distilled spirits or liquor (40% alcohol content). Who should not drink alcohol? Some people should not drink alcohol at all, including those who Are in recovery from an alcohol use disorder (AUD). Are are unable to control the amount they drink? Are under age 21Are pregnant or trying to become pregnant? Are taking medicines that can interact with alcohol? Have medical conditions that get can worse if you drink alcohol? Are planning on driving? Will be operating machinery or doing activities that require skill, coordination, and alertness? If you have questions about whether it is safe for you to drink, talk with your health care provider. What is excessive drinking? Excessive drinking includes binge drinking and heavy alcohol use: Binge drinking is drinking so much at once that your blood alcohol concentration (BAC) level is 0.08% or more:

For men, this usually happens after having 5 or more drinks within a few hours. For women, it is usually after about 4 or more drinks within a few hours.

Heavy alcohol use means:

For men, having more than 5 drinks on any day or more than 15 drinks per week. For women, having more than 4 drinks on any day or more than 8 drinks per week.

Binge drinking raises your risk of injuries, car crashes, and alcohol overdose. It also puts you at risk of becoming violent or being the victim of violence. Heavy alcohol use over a long period of time may cause health problems such as Alcohol use disorder (AUD)Liver diseases, including cirrhosis and fatty liver disease Heart diseases Increased risk of certain cancers Increased risk of injuries Heavy alcohol use can also cause problems at home, at work, and with friends. But treatment can help. NIH: National Institute on Alcohol Abuse and Alcoholism.

Alcohol Use Disorder (AUD)

What is alcohol use disorder (AUD)? For most adults, moderate alcohol use is probably not harmful. However, about 18 million adult Americans have an alcohol use disorder (AUD). This means that their drinking causes distress and harm. AUD can range from mild to severe, depending on the symptoms. Severe AUD is sometimes called alcoholism

or alcohol dependence. AUD is a disease that causes Craving - a strong need to drink Loss of control - not being able to stop drinking once you've started Negative emotional state - feeling anxious and irritable when you are not drinking. What is binge drinking? Binge drinking is drinking so much at once that your blood alcohol concentration (BAC) level is 0.08% or more. For a man, this usually happens after having 5 or more drinks within a few hours. For a woman, it is after about 4 or more drinks within a few hours. Not everyone who binge drinks has an AUD, but they are at higher risk for getting one. What are the dangers of too much alcohol? Too much alcohol is dangerous. Heavy drinking can increase the risk of certain cancers. It may lead to liver diseases, such as fatty liver disease and cirrhosis. It can also cause damage to the brain and other organs. Drinking during pregnancy can harm your baby. Alcohol also increases the risk of death from car crashes, injuries, homicide, and suicide. How do I know if I have an alcohol use disorder (AUD)? You may have an AUD if you can answer yes to two or more of these questions. In the past year, have you Ended up drinking more or for a longer time than you had planned to? Wanted to cut down or stop drinking, or tried to, but couldn't? Spent a lot of your time drinking or recovering from drinking? Felt a strong need to drink? Found that drinking - or being sick from drinking - often interfered with your family life, job, or school? Kept drinking even though it was causing trouble with your family or friends? Given up or cut back on activities that you enjoyed just so you could drink? Gotten into dangerous situations while drinking or after drinking? Some examples are driving drunk and having unsafe sex. Kept drinking even though it was making you feel depressed or anxious? Or when it was adding to another health problem? Had to drink more and more to feel the effects of the alcohol? Had withdrawal symptoms when the alcohol was wearing off? They include trouble sleeping, shakiness, irritability, anxiety, depression, restlessness, nausea, and sweating. In severe cases, you could have a fever, seizures, or hallucinations. If you have any of these symptoms, your drinking may already be a cause for concern. The more symptoms you have, the more serious the problem is. What should I do if I think that I might have an alcohol use disorder (AUD)? If you think you might have an AUD, see your health care provider for an evaluation. Your provider can help make a treatment plan, prescribe medicines, and if needed, give you treatment referrals. NIH: National Institute on Alcohol Abuse and Alcoholism.

Alcohol Use Disorder (AUD) Treatment

What is an alcohol use disorder? An alcohol use disorder (AUD) is drinking that causes distress and harm. It is a medical condition in which you Drink alcohol compulsively. Can't control how much you drink? Feel anxious, irritable, and/or stressed when you are not drinking? An AUD can range from mild to severe, depending on the symptoms. Severe AUD is sometimes called alcoholism or alcohol dependence. What are the treatments for alcohol use disorder? Most people with an alcohol use disorder can benefit from some form of treatment. Medical treatments include medicines and behavioral therapies. For many people, using both types gives them the best results. People who are getting treatment for AUD may also find it helpful to go to a support group such as Alcoholics Anonymous (AA). If you have an AUD and a mental illness, it is important to get treatment for both. Some people may need intensive treatment for AUD. They may go to a residential treatment center for rehabilitation (rehab). Treatment there is highly structured. It usually includes several different kinds of behavioral therapies. It may also include medicines for detox (medical treatment for alcohol withdrawal) and/or for treating the AUD. Which medicines can treat alcohol use disorder? Three medicines are approved to treat AUD. Disulfiram causes unpleasant symptoms such as nausea and skin flushing whenever you drink alcohol. Knowing that drinking will cause these unpleasant effects may help you stay away from alcohol. Naltrexone blocks the receptors in your brain that make you feel good when you drink alcohol. It can also reduce your craving for alcohol. This can help you cut back on your drinking. Acamprosate helps you avoid alcohol after you have quit drinking. It works on multiple brain systems to reduce your cravings, especially just after you have quit drinking. Your health care provider can help you figure out if one of these medicines is right for you. They are not addictive, so you don't have to worry about trading one addiction for another. They are not a cure, but they can help you manage AUD. This is just like taking medicines to manage a chronic disease such as asthma or diabetes. Which behavioral therapies can treat alcohol use disorder? Another name for behavioral therapies for AUD is alcohol counseling. It involves working with a health care professional to identify and help change the behaviors that lead to your heavy drinking. Cognitive-behavioral therapy (CBT) helps you identify the feelings and situations that can lead to heavy drinking. It teaches you coping skills, including how to manage stress and how to change the thoughts that cause you to want to drink. You may get CBT one-on-one with a therapist or in small groups. Motivational enhancement therapy helps you build and strengthen the motivation to change your drinking behavior. It includes about four sessions over a short period of time. The therapy starts with identifying the pros and cons of seeking

treatment. Then you and your therapist work on forming a plan for making changes in your drinking. The next sessions focus on building up your confidence and developing the skills you need to be able to stick to the plan. Marital and family counseling includes spouses and other family members. It can help to repair and improve your family relationships. Studies show that strong family support through family therapy may help you to stay away from drinking. Brief interventions are short, one-on-one or small-group counseling sessions. It includes one to four sessions. The counselor gives you information about your drinking pattern and potential risks. The counselor works with you to set goals and provide ideas that may help you make a change. Is treatment for alcohol use disorder effective? For most people, treatment for an AUD is helpful. But overcoming an alcohol use disorder is an ongoing process, and you may relapse (start drinking again). You should look at relapse as a temporary setback, and keep trying. Many people repeatedly try to cut back or quit drinking, have a setback, then try to quit again. Having a relapse does not mean that you cannot recover. If you do relapse, it is important to return to treatment right away, so you can learn more about your relapse triggers and improve your coping skills. This may help you be more successful the next time. NIH: National Institute on Alcohol Abuse and Alcoholism.

Allergy

An allergy is a reaction by your immune system to something that does not bother most other people. People who have allergies often are sensitive to more than one thing. Substances that often cause reactions are Pollen Dust mites Mold spores Pet dander Food Insect stings Medicines Normally, your immune system fights germs. It is your body's defense system. In most allergic reactions, however, it is responding to a false alarm. Genes and the environment probably both play a role. Allergies can cause a variety of symptoms such as a runny nose, sneezing, itching, rashes, swelling, or asthma. Allergies can range from minor to severe. Anaphylaxis is a severe reaction that can be life-threatening. Doctors use skin and blood tests to diagnose allergies. Treatments include medicines, allergy shots, and avoiding the substances that cause the reactions.

Alzheimer caregivers

A caregiver gives care to someone who needs help taking care of themselves. It can be rewarding. It may help to strengthen connections to a loved one. You may feel fulfillment from helping someone else. But sometimes caregiving can be stressful and even overwhelming. This can be especially true when caring for someone with Alzheimer's disease (AD).AD is an illness that changes the brain. It causes people to lose the ability to remember, think, and use good judgment. They also have trouble taking care of themselves. Over time, as the disease gets worse, they will need more and more help. As a caregiver, it is important for you to learn about AD. You will want to know what happens to the person during the different stages of the disease. This can help you plan for the future, so that you will have all of the resources you will need to be able to take care of your loved one. As a caregiver for someone with AD, your responsibilities can include: Getting your loved one's health, legal, and financial affairs in order. If possible, include them in the planning while they can still make decisions. Later you will need to take over managing their finances and paying their bills.

Evaluating their house and making sure it's safe for their needs Monitoring their ability to drive. You may want to hire a driving specialist who can test their driving skills. When it is no longer safe for your loved one to drive, you need to make sure that they stop. Encouraging your loved one to get some physical activity. Exercising together may make it more fun for them. Making sure that your loved one has a healthy diet. Helping with daily tasks like bathing, eating, or taking medicine. Doing housework and cooking. Running errands such as shopping for food and clothes. Driving them to appointments. Providing company and emotional support. Arranging medical care and making health decisions As you care for your loved one with AD, don't ignore your own needs. Caregiving can be stressful, and you need to take care of your own physical and mental health. At some point, you will not be able to do everything on your own. Make sure that you get help when you need it. There are many different services available, including: Home care services, Adult day care services, Respite services, which provide short-term care for the person with AD Federal and state government programs that can provide financial support and services, Assisted living facilities, Nursing homes, some of which have special memory care units for people with AD Palliative and hospice care You might consider hiring a geriatric care manager. They are specially trained professionals who can help you to find the right services for your needs. NIH: National Institute on Aging.

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Amblyopia, or "lazy eye," is the most common cause of visual impairment in children. It happens when an eye fails to work properly with the brain. The eye may look normal, but the brain favors the other eye. In some cases, it can affect both eyes. Causes include: Strabismus - a disorder in which the two eyes don't line up in the same direction Refractive error in an eye - when one eye cannot focus as well as the other, because of a problem with its shape. This includes nearsightedness, farsightedness, and astigmatism. Cataract - a clouding in the lens of the eye. It can be hard to diagnose amblyopia. It is often found during a routine vision exam. Treatment for amblyopia forces the child to use the eye with weaker vision. There are two common ways to do this. One is to have the child wear a patch over the good eye for several hours each day, over a number of weeks to months. The other is with eye drops that temporarily blur vision. Each day, the child gets a drop of a drug called atropine in the stronger eye. It is also sometimes necessary to treat the underlying cause. This could include glasses or surgery. NIH: National Eye Institute.

Amino Acid Metabolism Disorders

Metabolism is the process your body uses to make energy from the food you eat. Food is made up of proteins, carbohydrates, and fats. Your digestive system breaks the food parts down into sugars and acids, your body's fuel. Your body can use this fuel right away, or it can store the energy in your body. If you have a metabolic disorder, something goes wrong with this process. One group of these disorders is amino acid metabolism disorders. They include phenylketonuria (PKU) and maple syrup urine disease. Amino acids are "building blocks" that join together to form proteins. If you have one of these disorders, your body may have trouble breaking down certain amino acids. Or there may be a problem getting the amino acids into your cells. These problems cause a buildup of harmful substances in your body. That can lead to serious, sometimes life-threatening, health problems. These disorders are usually inherited. A baby who is born with one may not have any symptoms right away. Because the disorders can be so serious, early diagnosis and treatment are critical. Newborn babies get screened for many of them, using blood tests. Treatments may include special diets, medicines, and supplements. Some babies may also need additional treatments if there are complications.

Amyloidosis

Amyloidosis occurs when abnormal proteins called amyloids build up and form deposits. The deposits can collect in organs such as the kidney and heart. This can cause the organs to become stiff and unable to work the way they should. There are three main types of amyloidosis: Primary - with no known cause, Secondary - caused by another disease, including some types of cancer, Familial - passed down through genes Symptoms can vary, depending upon which organs are affected. Treatment depends on the type of amyloidosis you have. The goal is to help with symptoms and limit the production of proteins. If another disease is the cause, it needs to be treated.

## Amyotrophic Lateral Sclerosis

Amyotrophic lateral sclerosis (ALS) is a nervous system disease that attacks nerve cells called neurons in your brain and spinal cord. These neurons transmit messages from your brain and spinal cord to your voluntary muscles - the ones you can control, like in your arms and legs. At first, this causes mild muscle problems. Some people notice Trouble walking or running, Trouble writing, Speech problems Eventually, you lose your strength and cannot move. When muscles in your chest fail, you cannot breathe. A breathing machine can help, but most people with ALS die from respiratory failure. The disease usually strikes between age 40 and 60. More men than women get it. No one knows what causes ALS. It can run in families, but usually it strikes at random. There is no cure. Medicines can relieve symptoms and, sometimes, prolong survival. NIH: National Institute of Neurological Disorders and Stroke.

## Anabolic Steroids

What are anabolic steroids? Anabolic steroids are synthetic (man-made) versions of testosterone. Testosterone is the main sex hormone in men. It is needed to develop and maintain male sex characteristics, such as facial hair, deep voice, and muscle growth. Women do have some testosterone in their bodies, but in much smaller amounts. What are anabolic steroids used for? Health care providers use anabolic steroids to treat some hormone problems in men, delayed puberty, and muscle loss from some diseases. But some people misuse anabolic steroids. Why do people misuse anabolic steroids? Some bodybuilders and athletes use anabolic steroids to build muscles and improve athletic performance. They may take the steroids orally, inject them into muscles, or apply them to the skin as a gel or cream. These doses may be 10 to 100 times higher than doses

used to treat medical conditions. Using them this way, without a prescription from a health care provider, is not legal or safe. What are the health effects of misusing anabolic steroids? Misuse of anabolic steroids, especially over a long period of time, has been linked to many health problems, including: AcneStunted growth in teens, High blood pressure Changes in cholesterol, Heart problems, including heart attack Liver disease, including cancer Kidney damage Aggressive behavior. In men, it can also cause: Baldness Breast growth, Low sperm count/infertility Shrinking of the testicles. In women, it can also cause: Changes in your menstrual cycle (period)Growth of body and facial hair Male-pattern baldness, Voice deepening. Are anabolic steroids addictive? Even though they don't cause a high, anabolic steroids can be addictive. You can have withdrawal symptoms if you stop using them, including: Fatigue Restlessness, Loss of appetite, Sleep problems, Decreased sex drive Steroid cravings Depression, which can sometimes be serious and even lead to suicide attempts Behavioral therapy and medicines can be helpful in treating anabolic steroid addiction. NIH: National Institute on Drug Abuse.

Anal Cancer

What is anal cancer? Your anus is the opening at the end of your large intestine. It is where stool (poop) leaves your body. The anus is formed partly from your outer layers of skin and partly from your intestine. Anal cancer is a type of cancer that forms in the tissues of your anus. Who is more likely to develop anal cancer? Anyone can get anal cancer, but you are more likely to develop it if you: You have an infection with high-risk HPV, especially if you have certain types. Most anal cancers are related to HPV infection. Have a weakened immune system, from conditions such as HIV or because of medicines you need to take after an organ transplant. Have had vulvar, vaginal, or cervical cancer. Have many sexual partners. Have anal sex. Smoke cigarettes. What are the symptoms of anal cancer? The signs and symptoms of anal cancer may include: Bleeding from the anus or rectum. A lump near the anus Pain or pressure in the area around the anus Itching or discharge from the anus. A change in bowel habits, such as narrower stools, having to go more often, or bowel incontinence. How is anal cancer diagnosed? To find out if you have anal cancer, your provider: Will take your medical history, which includes asking about your symptoms. Will ask about your family health history. May do a digital rectal examination (DRE). A DRE is an exam of the anus and rectum. For the exam, your provider will insert a lubricated, gloved finger into the lower part of your rectum to feel for lumps or anything else that seems unusual. May order tests that examine the anus

and rectum, such as:

An anoscopy, an exam of the anus and lower rectum using a short, lighted tube called an anoscope. There is also a type of anoscopy called a high-resolution anoscopy. It uses a special magnifying device called a colposcope along with the anoscope to view these areas. A proctoscopy, a procedure to look inside the rectum and anus using a thin, tube-like instrument with a light and a lens. An endo-anal or endorectal ultrasound, a procedure in which an ultrasound probe is inserted into the rectum.

May do a biopsy during an anoscopy or proctoscopy. What are the treatments for anal cancer? The treatments for anal cancer include radiation therapy, chemotherapy, and surgery. Which treatment you get will depend on how advanced the cancer is, your overall health, and your preferences. Can anal cancer be prevented? You may be able to lower your risk of getting anal cancer by getting an HPV vaccine and not smoking. Contact your provider if you need help quitting smoking. It is currently not known if using condoms can prevent anal HPV infections. But using latex condoms every time you have sex can help prevent HIV, a risk factor for anal cancer. And they also help prevent other sexually transmitted infections (STIs). If your or your partner is allergic to latex, you can use polyurethane condoms. If you are an adult with HIV, it's important to get an anal cancer screening every year. The screening checks for anything that seems unusual, such as lumps, burning, and precancer cells (cells that could turn into cancer). The screening will include a digital rectal exam. If anything unusual is found, you will have an anoscopy or high resolution anoscopy.

## Anal Disorders

What is the anus? Your anus is the opening at the end of your large intestine. It is where stool (poop) leaves your body. What are anal disorders? Problems with the anus are common. They include: Hemorrhoids Abscesses Fissures, small cracks or tears in the lining of your anus Anorectal fistula, an abnormal tunnel from your anus or rectum to the skin surface Anal itching (pruritus ani) Cancer. What are the symptoms of anal disorders? Your symptoms will depend on which disorder you have. But some of the more common symptoms may include: Bleeding Discharge Itching Pain Swelling. How are anal disorders diagnosed? To make a diagnosis, your health care provider will ask about your symptoms and medical history. Depending upon your symptoms, your provider may Check the skin around your anus for anything that looks abnormal.

Perform a digital rectal exam (DRE). For this exam, your provider inserts a lubricated, gloved finger into the lower part of your rectum to feel for lumps or anything unusual. Order tests, such as an anoscopy. You may be embarrassed to talk about your anal troubles. But it's important to let your provider know about your symptoms, especially if you have pain or bleeding. The more details you can give about your problem, the better your provider can help you. How are anal disorders treated? Treatments vary, depending on the condition you have. NIH: National Institute of Diabetes and Digestive and Kidney Diseases.

## Anaphylaxis

Anaphylaxis is a serious allergic reaction. It can begin very quickly, and symptoms may be life-threatening. The most common causes are reactions to foods (especially peanuts), medications, and stinging insects. Other causes include exercise and exposure to latex. Sometimes no cause can be found. It can affect many organs Skin - itching, hives, redness, swelling Nose - sneezing, stuffy nose, runny nose Mouth - itching, swelling of the lips or tongue Throat - itching, tightness, trouble swallowing, swelling of the back of the throat Chest - shortness of breath, coughing, wheezing, chest pain or tightness Heart - weak pulse, passing out, shock Gastrointestinal tract - vomiting, diarrhea, cramps Nervous system - dizziness or fainting. If someone is having a serious allergic reaction, call 911. If an auto-injector is available, give the person the injection right away.

## Anatomy

Anatomy is the science that studies the structure of the body. On this page, you'll find links to descriptions and pictures of the human body's parts and organ systems from head to toe.

## Anemia

If you have anemia, your blood does not carry enough oxygen to the rest of your body. The most common cause of anemia is not having enough iron. Your body needs iron to make hemoglobin. Hemoglobin is an iron-rich protein that gives the red color to blood. It carries oxygen from the lungs to the rest of the body. Anemia has three main causes: blood loss, lack of red blood cell production, and high rates of red blood cell

destruction. Conditions that may lead to anemia include: Heavy periods Pregnancy Ulcers Colon polyps or colon cancer Inherited disorders, A diet that does not have enough iron, folic acid or vitamin B12Blood disorders such as sickle cell anemia and thalassemia, or cancer Aplastic anemia, a condition that can be inherited or acquiredG6PD deficiency, a metabolic disorder, Anemia can make you feel tired, cold, dizzy, and irritable. You may be short of breath or have a headache. Your doctor will diagnose anemia with a physical exam and blood tests. Treatment depends on the kind of anemia you have. NIH: National Heart, Lung, and Blood Institute.

Anesthesia

What is anesthesia? Anesthesia is the use of medicines to prevent pain during surgery and other procedures. These medicines are called anesthetics. They may be given by injection, inhalation, topical lotion, spray, eye drops, or skin patch. They cause you to have a loss of feeling or awareness. What is anesthesia used for? Anesthesia may be used in minor procedures, such as filling a tooth. It could be used during childbirth or procedures such as colonoscopies. And it is used during minor and major surgeries. In some cases, a dentist, nurse, or doctor may give you an anesthetic. In other cases, you may need an anesthesiologist. This is a doctor who specializes in giving anesthesia. What are the types of anesthesia? There are several different types of anesthesia. Local anesthesia numbs a small part of the body. It might be used on a tooth that needs to be pulled or on a small area around a wound that needs stitches. You are awake and alert during local anesthesia. Regional anesthesia is used for larger areas of the body such as an arm, a leg, or everything below the waist. You may be awake during the procedure, or you may be given sedation. Regional anesthesia may be used during childbirth, a Cesarean delivery (C-section), or minor surgeries. General anesthesia affects the whole body. It makes you unconscious and unable to move. It is used during major surgeries, such as heart surgery, brain surgery, back surgery, and organ transplants. What are the risks of anesthesia? Anesthesia is generally safe. But there can be risks, especially with general anesthesia, including: Heart rhythm or breathing problems, An allergic reaction to the anesthesia, Delirium after general anesthesia. Delirium makes people confused. They may be unclear about what is happening to them. Some people over the age of 60 have delirium for several days after surgery. It can also happen to children when they first wake up from anesthesia. Awareness when someone is under general anesthesia. This usually means that the person hears sounds. But sometimes they can feel pain. This

is rare.

## Aneurysms

An aneurysm is a bulge or "ballooning" in the wall of an artery. Arteries are blood vessels that carry oxygen-rich blood from the heart to other parts of the body. If an aneurysm grows large, it can burst and cause dangerous bleeding or even death. Most aneurysms occur in the aorta, the main artery that runs from the heart through the chest and abdomen. Aneurysms also can happen in arteries in the brain, heart and other parts of the body. If an aneurysm in the brain bursts, it causes a stroke. Aneurysms can develop and become large before causing any symptoms. Often doctors can stop aneurysms from bursting if they find and treat them early. They use imaging tests to find aneurysms. Often aneurysms are found by chance during tests done for other reasons. Medicines and surgery are the two main treatments for aneurysms. NIH: National Heart, Lung, and Blood Institute.

## Angina

Angina is chest pain or discomfort you feel when there is not enough blood flow to your heart muscle. Your heart muscle needs the oxygen that the blood carries. Angina may feel like pressure or a squeezing pain in your chest. It may feel like indigestion. You may also feel pain in your shoulders, arms, neck, jaw, or back. Angina is a symptom of coronary artery disease (CAD), the most common heart disease. CAD happens when a sticky substance called plaque builds up in the arteries that supply blood to the heart, reducing blood flow. There are three types of angina: Stable angina is the most common type. It happens when the heart is working harder than usual. Stable angina has a regular pattern. Rest and medicines usually help. Unstable angina is the most dangerous. It does not follow a pattern and can happen without physical exertion. It does not go away with rest or medicine. It is a sign that you could have a heart attack soon. Variant angina is rare. It happens when you are resting. Medicines can help. Not all chest pain or discomfort is angina. If you have chest pain, you should see your health care provider. NIH: National Heart, Lung, and Blood Institute.

## Angioplasty

What is angioplasty? Angioplasty is a procedure to improve blood flow in coronary arteries that have become narrow or blocked. Your coronary arteries supply oxygen-rich blood to your heart. If you have coronary artery disease, a sticky material called plaque builds up in your coronary arteries. Plaque is made of cholesterol, calcium, and other substances in your blood. Over time, it can narrow your arteries or fully block them. When this happens, some parts of your heart don't get enough blood. Angioplasty widens the blocked part of your artery so more blood can get through. It is also called percutaneous coronary intervention (PCI).

What conditions does angioplasty treat? Doctors (usually a heart specialist called a cardiologist) use angioplasty to Reduce chest pain from blockages in the coronary arteries. This type of pain is called angina. There are different types of angina. Angioplasty treats certain types. Limit damage to the heart during or right after a heart attack. In this case, angioplasty is an emergency treatment. Angioplasty does not cure coronary artery disease. To help prevent more plaque blockages, you'll need to take any prescribed medicines, eat healthy foods, and get regular exercise. What happens during angioplasty? Most people have angioplasties in a hospital in a special room called a cardiac catheterization, or cath, lab. You will be awake and lying down. You'll get medicine to help you relax through an intravenous (IV) line. This is a small tube that goes into a vein in your hand or arm. Angioplasty is done through a blood vessel in your arm, wrist, or groin. Your doctor will Make a small opening in that area to insert a thin tube (a catheter) into a blood vessel. Thread the tube through the vessel to your heart, using x-rays as a guide. Inject contrast dye inside your arteries. The dye highlights your heart and blood vessels in the x-rays. Replace the first tube with another one that has a small, deflated balloon on the end. Guide the balloon inside the blockage and inflate it to push the plaque flat against the artery wall. This makes the artery wider and improves blood flow. Sometimes put a small, mesh tube into the artery to help keep it open. The tube is called a stent. Some stents have a coating of medicine that helps prevent blood clots from forming. What happens after an angioplasty? If you had an angioplasty for chest pain, you'll go to a recovery room for a few hours. You may stay in the hospital overnight. Your doctor will probably prescribe medicines to prevent blood clots. Most people can return to their usual activities after a week .If you had an emergency angioplasty for a heart attack, you'll need to stay in the hospital for about a few more days. Are there any risks from angioplasty? Angioplasty is very safe, but every invasive procedure comes with risks. You may get a bruise, feel sore, or have some bleeding

where the tubes were inserted. More serious problems don't happen very often, but they are possible. They can include serious bleeding, blood clots, and narrowing of the artery again. NIH: National Heart, Lung, and Blood Institute.

## Animal Bites

Wild animals usually avoid people. They might attack, however, if they feel threatened, are sick, or are protecting their young or territory. Attacks by pets are more common. Animal bites rarely are life-threatening, but if they become infected, you can develop serious medical problems. To prevent animal bites and complications from bites, Never pet, handle, or feed unknown animals Leave snakes alone, Watch your children closely around animals Vaccinate your cats, ferrets, and dogs against rabies, Spay or neuter your dog to make it less aggressive Get a tetanus booster if you have not had one recently, Wear boots and long pants when you are in areas with venomous snakes. If an animal bites you, clean the wound with soap and water as soon as possible. Get medical attention if necessary. Centers for Disease Control and Prevention.

## Animal Diseases and Your Health

Animal diseases that people can catch are called zoonoses. Many diseases affecting humans can be traced to animals or animal products. You can get a disease directly from an animal, or indirectly, through the environment. Farm animals can carry diseases. If you touch them or things they have touched, like fencing or buckets, wash your hands thoroughly. Adults should make sure children who visit farms or petting zoos wash up as well. Though they may be cute and cuddly, wild animals may carry germs, viruses, and parasites. Deer and deer mice carry ticks that cause Lyme disease. Some wild animals may carry rabies. Enjoy wildlife from a distance. Pets can also make you sick. Reptiles pose a particular risk. Turtles, snakes and iguanas can transmit Salmonella bacteria to their owners. You can get rabies from an infected dog or toxoplasmosis from handling kitty litter of an infected cat. The chance that your dog or cat will make you sick is small. You can reduce the risk by practicing good hygiene, keeping pet areas clean and keeping your pets' shots up to date.

## Ankle Injuries and Disorders

Your ankle bone and the ends of your two lower leg bones make up the ankle joint. Your ligaments, which connect bones to one another, stabilize and support it. Your muscles and tendons move it. The most common ankle problems are sprains and fractures (broken bones). A sprain is an injury to the ligaments. It may take a few weeks to many months to heal completely. A fracture is a break in a bone. You can also injure other parts of the ankle such as tendons, which join muscles to bone, and cartilage, which cushions your joints. Ankle sprains and fractures are common sports injuries.

Ankylosing Spondylitis

What is ankylosing spondylitis? Ankylosing spondylitis (AS) is a type of arthritis of the spine. It causes inflammation (swelling) between your vertebrae (the bones that make up your spine) and the joints between your spine and pelvis. AS inflammation can cause stiffness and make it difficult to move and bend. Symptoms of AS can range from mild to severe back pain. Over time, AS can fuse (grow together) your vertebrae, limiting movement and causing a hunched posture. In some people, AS can affect other joints or body parts. There is no cure for AS, but early treatment can help manage symptoms, slow down the disease, and help you lead a more productive life. Who is more likely to get ankylosing spondylitis? Ankylosing spondylitis usually starts before age 45. Early symptoms may begin between the ages of 15 and 30. Your chance of developing AS can also increase if You're a man. AS is more common and severe in men. You have a family history. If a member of your family has AS, you're more likely to get the disease.You have other medical conditions that may increase your risk of getting AS. These include Crohn's disease, ulcerative colitis, or psoriasis. What causes ankylosing spondylitis? No one knows what causes ankylosing spondylitis, but the environment and genes likely play a role. Your genes are parts of DNA in your cells that are passed down from your parents. Certain genes may increase your risk of getting the disease, but not everyone with these genes gets AS. What are the symptoms of ankylosing spondylitis? AS affects people differently. The most common symptom is pain and stiffness in the lower back and/or hips. The pain is usually worse during the night or after sitting for a long time. Over time, AS may progress to other areas of your spine or body. Symptoms may depend on which areas of your body the disease affects. Some people have symptoms that come and go. Others may have severe, ongoing pain. Other symptoms of ankylosing spondylitis may include: Pain, stiffness, and inflammation of the joints,

Difficulty taking a deep breath. This could occur if the joints connecting the ribs are affected. Changes in vision, Fatigue, Loss of appetite, Weight loss, Skin rashes, such as psoriasis, Abdominal (belly) pain and loose stools (poop).How is ankylosing spondylitis diagnosed? There is no single test for ankylosing spondylitis. To find out if you have AS your health care provider may Ask about your medical history, including your symptoms. Ask about your family health history, including relatives who have had AS. Do a physical exam. Order blood tests or imaging studies. What are the treatments for ankylosing spondylitis? AS has no cure, but treatment may help relieve symptoms, maintain posture, and slow down the disease. Since other parts of your body can be affected by AS, you will likely work with a team of health care professionals for tests, diagnosis, and care. Treatment usually includes medicine to help relieve symptoms and keep the disease from getting worse, as well as physical therapy to improve mobility. If AS is severe, surgery may be needed. You can help manage your AS symptoms if you Exercise Monitor your symptoms Manage your stress. Use assistive devices as needed Follow a healthy diet, Stop smoking, or don't start. NIH: National Institute of Arthritis and Musculoskeletal and Skin Disease.

Anthrax

Anthrax is a disease caused by Bacillus anthracis, a germ that lives in soil. Many people know about it from the 2001 bioterror attacks. In the attacks, someone purposely spread anthrax through the U.S. mail. This killed five people and made 22 sick. Anthrax is rare. It affects animals such as cattle, sheep, and goats more often than people. People can get anthrax from contact with infected animals, wool, meat, or hides. It can cause three forms of disease in people. They are: Cutaneous, which affects the skin. People with cuts or open sores can get it if they touch the bacteria. Inhalation, which affects the lungs. You can get this if you breathe in spores of the bacteria. Gastrointestinal, which affects the digestive system. You can get it by eating infected meat. Antibiotics often cure anthrax if it is diagnosed early. But many people don't know they have anthrax until it is too late to treat. A vaccine to prevent anthrax is available for people in the military and others at high risk. .

Antibiotic Resistance

What are antibiotics? Antibiotics are medicines that treat bacterial infections in humans

and animals. They work by killing the bacteria or making it hard for the bacteria to grow and multiply. When used properly, antibiotics can save lives. But there is a growing problem of antibiotic resistance. What is antibiotic resistance? Antibiotic resistance happens when bacteria change and can resist the effects of an antibiotic. The bacteria are not killed, and they continue to grow. The infections these bacteria cause are called resistant infections. Resistant infections can be difficult, and sometimes impossible, to treat. In some cases, they can even be deadly. Antibiotic resistance does not mean that your body is resistant to antibiotics. There are many different types of resistant infections. They include MRSA and drug-resistant tuberculosis (TB). If you get a resistant infection, you might need: A long hospital stay, A long recovery, Follow-up visits with health care providers, Treatments that are expensive and may have severe side effects Antibiotic resistance is one type of antimicrobial resistance. There are other types; viruses, fungi, and parasites can also become resistant to medicines. How do bacteria become resistant to antibiotics? Antibiotic resistance is a natural process that happens over time. To survive, bacteria can develop defense strategies against antibiotics. This happens through genetic changes in the bacteria. These resistant bacteria survive, grow, and spread. Each time you take antibiotics, there is a risk that the bacteria will become resistant. So it is important to only take antibiotics when you really need them. They won't work on viral infections such as colds and the flu. And you don't need antibiotics for every bacterial infection. For example, you may not need them for some sinus and ear infections. Who is more likely to develop an antibiotic-resistant infection? Anyone can develop an antibiotic-resistant infection, but certain people may be at higher risk, including those who: Have a weakened immune system from diseases such as HIV or from taking medicines that affect the immune system. Are getting medical care such as surgery and hospital stays, Take antibiotics for a long time, Are infants, especially if they were born prematurely, Are older adults. How can antibiotic resistance be prevented? There will always be some antibiotic resistance, since it happens naturally. But you can help fight against antibiotic resistance by taking these steps: Don't use antibiotics for viruses. Don't pressure your health care provider to give you an antibiotic if they don't think you need one. When you take antibiotics, follow the directions carefully. Don't share your antibiotics with others. Don't save antibiotics for later or use someone else's prescription. Help prevent the spread of bacterial infections with good hygiene habits. These include washing your hands often and covering your mouth and nose when coughing or sneezing. Centers for Disease Control and Prevention.

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Antidepressants

What are antidepressants? Antidepressants are prescription medicines to treat depression. Depression is more than feeling a little sad or "blue" for a few days. It's a very common, serious medical illness that affects your mood and general mental health It can make you feel tired, hopeless, worried, or fearful. It can change your thinking, sleeping, and eating. Depression may make some people think about ending their lives. But antidepressants can help many people who have depression. Researchers think antidepressants may help improve the way your brain uses certain chemicals that control mood or stress. Are antidepressants used for other conditions? A health care provider may prescribe antidepressants for anxiety, chronic pain, or insomnia. Sometimes providers also prescribe antidepressants for other conditions. What are the different types of antidepressants? There are many types of antidepressants. Each one works differently. Providers usually prescribe newer antidepressants first because they don't cause as many side effects as older types. They also seem to help more kinds of depression and anxiety problems. Most of the newer antidepressants belong to one of these three groups: Selective serotonin reuptake inhibitors (SSRIs), Serotonin and norepinephrine reuptake inhibitors (SNRIs), Atypical antidepressants, which are newer antidepressants that don't fit into the other groups. If these antidepressants don't help, your provider might suggest one of the older antidepressants. The older types include tricyclic antidepressants (TCAs), tetracyclics, and monoamine oxidase inhibitors (MAOIs). Even though these antidepressants may cause more serious side effects, the benefits may outweigh the risks for some people. Which type of antidepressant is right for me? Our bodies and brains all work differently. That means one antidepressant won't work for everyone. You may need to try two or more medicines before you find one that works for you. Your provider will work with you to choose the best option to try first. You'll consider questions such as: Which symptoms bother you most? Some antidepressants may do a better job helping specific symptoms, such as trouble sleeping. What other medicines and supplements do you take? Some antidepressants can cause problems if you take them with certain medicines and herbs. Did a certain antidepressant work well for a close relative? An antidepressant that helped a parent, brother, or sister could be a good choice for you, too. Do you have other health conditions? Certain antidepressants can make some other conditions better or worse. Any other conditions that you have will be part of choosing your depression treatment. Are you pregnant, planning for pregnancy, or breastfeeding? If so, your provider will help you find a way to treat your

depression that's safe for you and your baby. How long do antidepressants take to work? Antidepressants usually take 4 to 8 weeks to work, so you'll need to be patient. You may notice that some problems, such as sleeping and eating, get better before your mood improves. That's a good sign. You may just need to give the medicine a little more time to do its job. Sometimes an antidepressant helps at first, but symptoms return while you're still taking it. But there's usually another one you can try. To get more relief from depression, your provider may suggest combining two antidepressants, using another kind of medicine with an antidepressant, or adding talk therapy or other approaches to improve your mental health. How long will I need to take an antidepressant? When an antidepressant starts to work, you and your provider can decide how long you need to stay on it. The typical length of treatment is 6 to 12 months, but some people may stay on antidepressants for much longer. What are the side effects of antidepressants? Not everyone has side effects from antidepressants. But if you do have them, they're usually mild and may get better over time as your body gets used to the new medicine. The most common side effects from antidepressants include: Nausea and vomiting Weight gain Diarrhea Sleepiness Sexual problems, such as a lack of desire or ability to have sex. When thinking about side effects, it's important to remember that there are also risks from not treating depression. Your provider can help you think through the pros and cons of all your options. If you have any side effects from antidepressants, your provider may suggest ways to manage them while you wait to see if the antidepressant will work. If the side effects bother you too much, you may need to change antidepressants. But you should never change your dose or stop taking an antidepressant on your own. If you have serious problems or notice any changes that worry you, such as new or worsening symptoms, unusual changes in your mood, or you start acting differently, call your provider right away. In some cases, children, teenagers, and young adults under 25 may be more likely to think about hurting or killing themselves when starting antidepressants or when the dose is changed. Get medical help right away if this happens. What can I do to take antidepressants safely? Antidepressants are generally safe when you use them correctly: Tell your provider about everything you take. That includes medicines, herbs, supplements, and over-the-counter medicines you take, such as pain relievers and decongestants. Be honest about recreational drugs and alcohol, too. Try to get all your medicines from the same pharmacy. That way the pharmacist can warn you and your provider if you take medicines that may cause problems when used together. Follow all instructions about how to take your medicine. Talk with your provider if side effects bother you. Never stop taking antidepressants without your provider's help. Stopping too

fast may make depression come back. You could even make your condition worse. To stop antidepressants safely, you need to give your body time to get used to being without the medicine. Your provider can tell you the safest way to go off an antidepressant. NIH: National Institute of Mental Health.

## Antioxidants

Antioxidants are man-made or natural substances that may prevent or delay some types of cell damage. Antioxidants are found in many foods, including fruits and vegetables. They are also available as dietary supplements. Examples of antioxidants include: Beta-carotene, Lutein, Lycopene, Selenium, Vitamin. A Vitamin, C Vitamin, E Vegetables and fruits are rich sources of antioxidants. There is good evidence that eating a diet with lots of vegetables and fruits is healthy and lowers risks of certain diseases. But it isn't clear whether this is because of the antioxidants, something else in the foods, or other factors. High-dose supplements of antioxidants may be linked to health risks in some cases. For example, high doses of beta-carotene may increase the risk of lung cancer in smokers. High doses of vitamin E may increase risks of prostate cancer and one type of stroke. Antioxidant supplements may also interact with some medicines. To minimize risk, tell your health care providers about any antioxidants you use. NIH: National Center for Complementary and Integrative Health.

## Anxiety

What is anxiety? Anxiety is a feeling of fear, dread, and uneasiness. It might cause you to sweat, feel restless and tense, and have a rapid heartbeat. It can be a normal reaction to stress. For example, you might feel anxious when faced with a difficult problem at work, before taking a test, or before making an important decision. It can help you to cope. The anxiety may give you a boost of energy or help you focus. But for people with anxiety disorders, the fear is not temporary and can be overwhelming. What are anxiety disorders? Anxiety disorders are conditions in which you have anxiety that does not go away and can get worse over time. The symptoms can interfere with daily activities such as job performance, schoolwork, and relationships. What are the types of anxiety disorders? There are several types of anxiety disorders, including: Generalized anxiety disorder (GAD). People with GAD worry about ordinary issues such as health, money, work, and family. But their worries are excessive, and they have them almost every day

for at least 6 months. Panic disorder. People with panic disorder have panic attacks. These are sudden, repeated periods of intense fear when there is no danger. The attacks come on quickly and can last several minutes or more. Phobias. People with phobias have an intense fear of something that poses little or no actual danger. Their fear may be about spiders, flying, going to crowded places, or being in social situations (known as social anxiety). What causes anxiety disorders? The cause of anxiety is unknown. Factors such as genetics, brain biology and chemistry, stress, and your environment may play a role. Who is at risk for anxiety disorders? The risk factors for the different types of anxiety disorders can vary. For example, GAD and phobias are more common in women, but social anxiety affects men and women equally. There are some general risk factors for all types of anxiety disorders, including: Certain personality traits, such as being shy or withdrawn when you are in new situations or meeting new people, Traumatic events in early childhood or adult hood Family history of anxiety or other mental disorders, Some physical health conditions, such as thyroid problems or arrhythmia. What are the symptoms of anxiety disorders? The different types of anxiety disorders can have different symptoms. But they all have a combination of Anxious thoughts or beliefs that are hard to control. They make you feel restless and tense and interfere with your daily life. They do not go away and can get worse over time. Physical symptoms, such as a pounding or rapid heartbeat, unexplained aches and pains, dizziness, and shortness of breath Changes in behavior, such as avoiding everyday activities you used to do. Using caffeine, other substances, and certain medicines can make your symptoms worse. How are anxiety disorders diagnosed? To diagnose anxiety disorders, your health care provider will ask about your symptoms and medical history. You may also have a physical exam and lab tests to make sure that a different health problem is not the cause of your symptoms. If you don't have another health problem, you will get a psychological evaluation. Your provider may do it, or you may be referred to a mental health professional to get one. What are the treatments for anxiety disorders? The main treatments for anxiety disorders are psychotherapy (talk therapy), medicines, or both. Psychotherapy can help you recognize and change troubling emotions, thoughts, and behaviors. To be effective, it should focus on your specific anxieties and needs. There are many types; some of the types used for anxiety disorders include:

Cognitive behavioral therapy (CBT), which teaches you different ways of thinking and behaving. It can help you change how you react to the things that cause you to feel fear and anxiety. It may include exposure therapy. This therapy focuses on having you confront your fears so that you will be able to do the things that you had been avoiding.

Acceptance and commitment therapy may help with some anxiety disorders. It uses strategies such as mindfulness and goal setting to reduce discomfort and anxiety.

Medicines to treat anxiety disorders include anti-anxiety medicines and certain antidepressants. Some types of medicines may work better for specific types of anxiety disorders. You should work closely with your provider to identify which medicine is best for you. You may need to try more than one medicine before you can find the right one. Support groups and stress management techniques may also be helpful. NIH: National Institute of Mental Health.

## Aortic Aneurysm

An aneurysm is a bulge or "ballooning" in the wall of an artery. Arteries are blood vessels that carry oxygen-rich blood from the heart to other parts of the body. If an aneurysm grows large, it can burst and cause dangerous bleeding or even death. Most aneurysms are in the aorta, the main artery that runs from the heart through the chest and abdomen. There are two types of aortic aneurysm: Thoracic aortic aneurysms (TAA) - these occur in the part of the aorta running through the chest Abdominal aortic aneurysms (AAA) - these occur in the part of the aorta running through the abdomen. Most aneurysms are found during tests done for other reasons. Some people are at high risk for aneurysms. It is important for them to get screening, because aneurysms can develop and become large before causing any symptoms. Screening is recommended for people between the ages of 65 and 75 if they have a family history, or if they are men who have smoked. Doctors use imaging tests to find aneurysms. Medicines and surgery are the two main treatments. NIH: National Heart, Lung, and Blood Institute.

## Aphasia

What is aphasia? Aphasia is a language disorder that makes it hard for you to read, write, and say what you mean to say. Sometimes it makes it hard to understand what other people are saying, too. Aphasia is not a disease. It's a symptom of damage to the parts of the brain that control language. The signs of aphasia depend on which part of the brain is damaged. There are four main types of aphasia: Expressive aphasia is when you know what you want to say, but you have trouble saying or writing your thoughts. Receptive aphasia affects your ability to read and understand speech. You can hear what people say or see words on a page, but you have trouble making sense of what they

mean. Global aphasia is the loss of almost all language ability. You can't speak, understand speech, read, or write. Anomic or amnesia aphasia is when you have trouble using the right words for certain things, people, places or events. In some cases, aphasia may get better on its own. But it can be a long-term condition. There's no cure, but treatment may help improve language skills. What causes aphasia? Aphasia happens from damage to one or more parts of the brain involved with language. The damage may be from: Stroke, which is the most common cause of aphasia Brain tumor, Brain infection or inflammation, Brain injury, Other brain disorders or neurologic diseases that affect the brain and get worse over time, such as dementia. Who is more likely to develop aphasia? Anyone can have aphasia at any age, but most people with aphasia are middle-aged or older. Most aphasia happens suddenly from a stroke or brain injury. Aphasia from a brain tumor or other brain disorder may develop slowly over time. How is aphasia diagnosed? If a health care provider sees signs of aphasia, the provider will usually: Test the person's ability to understand language and speech. This includes asking questions and checking to see if the person can follow simple commands. Order an imaging scan to see if there's a brain injury and what part of the brain is damaged. Possible tests include:

MRICT scan

If imaging shows signs of aphasia, more tests may be needed. These tests measure how much the brain damage has affected the ability to talk, read, write, and understand. In most cases, the tests are done by a speech-language pathologist or speech therapist (a specialist who treats speech and communication disorders). What are the treatments for aphasia? Some people fully recover from aphasia without treatment. But most people should begin speech-language therapy to treat aphasia as soon as possible. Treatment may be one-on-one with a speech therapist or in a group. Therapy using a computer may also be helpful. The specific therapy depends on the type of language loss that a person has. It may include exercises in reading, writing, following directions, and repeating what the therapist says. Therapy may also include learning how to communicate with gestures, pictures, smartphones, or other electronic devices. Family participation may be an important part of speech therapy. Family members can learn to help with recovery in many ways, such as Using simpler language Including the person with aphasia in conversations, Repeating or writing down key words to help communicate more clearly. How much a person recovers depends on many things,

including: What caused the brain injury, What part of the brain was hurt, How badly and how much of the brain was hurt. The age and health of the person, Can aphasia be prevented? You can help prevent aphasia by Making heart-healthy lifestyle changes to lower your chance of having:

A stroke Heart disease, Vascular disease (problems with your blood vessels).

Protecting your brain from injury:

Wearing the right helmet for sports safety, such as when riding a bike, Taking action to prevent falls. Always wearing your seatbelt and driving safely

NIH: National Institute on Deafness and Other Communication Disorders.

Aplastic Anemia

What is aplastic anemia?

Aplastic anemia is a rare but serious blood disorder. If you have it, your bone marrow doesn't make enough new blood cells. It happens when there is damage to stem cells inside your bone marrow. There are different types of aplastic anemia, including Fanconi anemia. What causes aplastic anemia? The causes of aplastic anemia can include: Autoimmune disorders, which are the most common cause Certain inherited gene changes, such as the one that can cause Fanconi anemia Toxic substances, such as pesticides, arsenic, and benzene Radiation therapy and chemotherapy for cancer Certain medicines Viral infections such as hepatitis, Epstein-Barr virus, or HIV Pregnancy. In many people, the cause is unknown. This is called idiopathic aplastic anemia. What are the symptoms of aplastic anemia? Aplastic anemia can develop suddenly or slowly. It can be mild or severe. The symptoms of aplastic anemia can include: Fatigue Weakness Dizziness Shortness of breath Easy bruising or bleeding. What other problems can aplastic anemia cause? Aplastic anemia can cause other problems, including frequent infections and bleeding. It raises your risk of developing a serious blood disorder. If not treated, aplastic anemia can also lead to heart problems such as an arrhythmia (a problem with the rate or rhythm of your heartbeat), an enlarged heart, or heart failure. How is aplastic anemia diagnosed? To find out if you have aplastic anemia, your doctor will:

Take your medical and your family medical histories. Do a physical exam, Order tests, such as tests to check if you have low numbers of cells in your bone marrow and blood. What are the treatments for aplastic anemia? If you have aplastic anemia, your doctor will create a treatment plan for you. The plan will be based on how severe the anemia is and what is causing it. Treatments can include: Blood transfusions, Blood and marrow stem cell transplants, Medicines to suppress your immune system Because of the risk of blood disorders, your doctor will monitor your condition and screen you for blood disorders regularly. NIH: National Heart, Lung, and Blood Institute.

## Appendicitis

The appendix is a small, tube-like organ attached to the first part of the large intestine. It is located in the lower right part of the abdomen. It has no known function. A blockage inside of the appendix causes appendicitis. The blockage leads to increased pressure, problems with blood flow, and inflammation. If the blockage is not treated, the appendix can burst and spread infection into the abdomen. This causes a condition called peritonitis. The main symptom is pain in the abdomen, often on the right side. It is usually sudden and gets worse over time. Other symptoms may include: Swelling in the abdomen Loss of appetite Nausea and vomiting Constipation or diarrhea Inability to pass gas. Low fever Not everyone with appendicitis has all these symptoms. Appendicitis is a medical emergency. Treatment almost always involves removing the appendix. Anyone can get appendicitis, but it is more common among people 10 to 30 years old. NIH: National Institute of Diabetes and Digestive and Kidney Diseases.

## Arm Injuries and Disorders

Of the 206 bones in your body, three of them are in your arm: the humerus, radius, and ulna. Your arms are also made up of muscles, joints, tendons, and other connective tissue. Injuries to any of these parts of the arm can occur during sports, a fall, or an accident. Types of arm injuries include :Tendinitis and bursitis, Sprains Dislocations Fractures (broken bones), Nerve problems Osteoarthritis. You may also have problems or injure specific parts of your arm, such as your hand, wrist, elbow, or shoulder.

## Arrhythmia

What is an arrhythmia? An arrhythmia is a problem with the rate or rhythm of your heartbeat. Your heart beats too quickly, too slowly, or with an irregular pattern. Changes in the electrical signals that control your heartbeat cause arrhythmias. When your heart beats faster than normal, it's called tachycardia. When your heart beats too slowly, it's called bradycardia. When the signal to beat comes too early, it's called a premature or extra heartbeat. It may feel like your heart skipped a beat .There are many types of arrhythmias. Arrhythmias may affect the upper or lower chamber of your heart. The most common type of arrhythmia is atrial fibrillation, which causes an irregular and fast heartbeat. Some arrhythmias are harmless, such as when your heart rate speeds up during exercise and slows down when you sleep. But if you have a frequent irregular rhythm, it may mean your heart isn't pumping enough blood into your body. Getting treatment and following a heart-healthy lifestyle can help control arrhythmias. It may also help prevent heart damage that can trigger some heart arrhythmias. What causes an arrhythmia? Many factors can affect your heart's rhythm, such as having had a heart attack, smoking, congenital heart defects, and stress. Other factors that could increase your risk for some types of arrhythmias could include if you Have a family history of arrhythmias or Have certain health conditions, which can include heart and blood vessel diseases, lung diseases, kidney diseases, obesity, and sleep apnea, Are an older adult, Have had recent surgery for your heart, lungs, or throat. Take certain medicines for other health conditions. Use illegal drugs. If you have risk factors, some situations that make your heart work harder, raise your blood pressure, or cause strong emotional stress may trigger an arrhythmia. What are the symptoms of an arrhythmia? You may not have any noticeable symptoms of an arrhythmia. Your provider may find an arrhythmia during your routine checkup. Symptoms of an arrhythmia can include: Fast or slow heartbeat Skipping, fluttering, or pounding heartbeats Chest pain or discomfort Dizziness or fainting Shortness of breath Sweating Tiredness or weakness. Seek emergency medical care if you have chest pain, shortness of breath, or think you are having a heart attack. How is an arrhythmia diagnosed? To find out if you have an arrhythmia, your health care provider may order an electrocardiogram (EKG). This test records your heart's electrical activity and is the most common for finding an arrhythmia. Your provider may also Ask about your medical history, including your symptoms and lifestyle habits. Do a physical exam, which includes checking your heartbeat and pulse. Order blood tests and other heart tests. Check your legs or feet for swelling. Look for signs of other health conditions that could cause an arrythmia, such as thyroid disease. What are the treatments for an arrhythmia? Treatment may include medicines, an implantable cardioverter-defibrillator

(ICD) or pacemaker, or sometimes surgery. Your provider may also recommend avoiding activities that may trigger your arrhythmia. The goal of treatment is to restore a normal heart rhythm. If not treated, arrhythmias can damage your heart, brain, and other organs and could be life-threatening. Can arrhythmias be prevented? To help prevent an arrhythmia, your provider may suggest that you make heart-healthy lifestyle changes and treat health conditions that may cause arrhythmias. NIH: National Heart, Lung, and Blood Institute.

## Arsenic

Arsenic is a natural element found in soil and minerals. Arsenic compounds are used to preserve wood, as pesticides, and in some industries. Arsenic can get into air, water, and the ground from wind-blown dust. It may also get into water from runoff. You may be exposed to arsenic by Taking in small amounts in food, drinking water, or air Breathing sawdust or burning smoke from arsenic-treated wood Living in an area with high levels of arsenic in rock Working in a job where arsenic is made or used Exposure to arsenic can cause many health problems. Being exposed to low levels for a long time can change the color of your skin. It can cause corns and small warts. Exposure to high levels of arsenic can cause death. Agency for Toxic Substances Disease Registry.

## Arteriovenous Malformations

What are arteriovenous malformations (AVMs)? Arteriovenous malformations (AVMs) are defects in your vascular system. Your vascular system is your body's network of blood vessels. It includes your Arteries, which carry oxygen-rich blood from your heart to your tissues and organs. Veins, which carry the blood and waste products back to your heart. Capillaries, which are tiny blood vessels that connect your small arteries to your small veins. An AVM is an abnormal tangle of arteries and veins. They are connected to each other, with no capillaries between them. Without the capillaries, the blood flow from the arteries goes directly into the veins at a faster rate than normal. Because of this, the nearby tissue does not get all the oxygen it would normally get. This lack of oxygen can lead to tissue damage and the death of nerve cells and other cells. The fast rate of blood flow can also increase the blood pressure inside the arteries and veins. This can weaken the arteries and veins. A weakened artery or blood vessel could burst or leak blood. What causes arteriovenous malformations (AVMs)? AVMs are rare. The cause of AVMs is

unknown. Most of the time, people are born with them. But sometimes they can appear shortly after birth or later in life. What are the symptoms of arteriovenous malformations (AVMs)? The symptoms of AVM will depend on where the AVM is located. They can happen anywhere in the body, but they are more common in the brain or spinal cord. Most people with brain or spinal cord AVMs have few, if any, major symptoms. But if a weakened blood vessel bursts, it can spill blood into the brain (called a hemorrhage). Severe hemorrhages can cause a stroke and brain damage. If an AVM is causing symptoms, they can include Seizures Headache Pain in the area where the AVM is located Vision problems Muscle weakness Problems with movement and speech Confusion Dizziness Loss of consciousness. How are arteriovenous malformations (AVMs) diagnosed? To find out if you have an AVM, your health care provider Will ask about your symptoms and medical history. Will do a physical exam. This may include listening for a bruit. A bruit is whooshing sound caused by the rapid blood flow through the arteries and veins of an AVM. May order imaging tests, such as a CT scan, MRI, ultrasound, or cerebral angiography. For a cerebral angiography, you are injected with a special dye that helps the blood vessels in your brain show up on x-rays. What are the treatments for arteriovenous malformations (AVMs)? Treatments for AVMs will depend on factors such as Where the AVM is located, Its size, Your symptoms, Your overall health, Your risk of bleeding. The treatment options may include: Monitoring for any signs that may mean you have an increased risk of hemorrhage. Medicines to help with the symptoms from AVMs. Surgery, which may be done if you have a higher-than-usual risk of bleeding. There are a few different types of surgery for AVMs. In some cases, you may have more than one type. Surgery can be risky, especially when it's done on the brain or spinal cord. So you and your provider will need to discuss the risks and benefits of doing the surgery before you make a decision. NIH: National Institute of Neurological Disorders and Stroke.

Arthritis

What is arthritis? If you feel pain and stiffness in your body or have trouble moving around, you might have arthritis. Any disorder that affects the joints is often called arthritis. Joints are places where two bones meet, such as your elbow or knee. Most types of arthritis can cause joint pain and inflammation (swelling). Over time, a swollen joint can become severely damaged. Some kinds of arthritis can also cause problems in your organs, such as your eyes or skin. Treatment will depend on the type of arthritis

you have. What are the types of arthritis? Common types of arthritis include: Osteoarthritis is the most common type of arthritis. It's often related to aging or injury. Autoimmune arthritis happens when your body's immune system attacks healthy cells in your body by mistake. Rheumatoid arthritis is the most common form of this type of arthritis. Juvenile arthritis is a type of arthritis that happens in children. Infectious arthritis is an infection that has spread from another part of your body to the joint. Reactive arthritis is one type. Psoriatic arthritis affects people with psoriasis (itchy or sore scaly red and white skin patches). Gout is a painful type of arthritis that happens when too much uric acid builds up in your body. It often starts in the big toe. Other joints can also be affected. Ankylosing spondylitis is a type of arthritis of the spine that can cause stiffness and make it difficult to move and bend. What are the symptoms of arthritis? Pain, redness, warmth, and joint inflammation are common arthritis symptoms. You may not be able to move your joint as well as it should. Other symptoms could include fever, weight loss, breathing difficulties, or a rash. Symptoms often get worse as you age. Some symptoms of arthritis may be signs of other illnesses. Who is more likely to get arthritis? A few things that might increase your chance of getting arthritis include: Family history. You may be more likely to get certain types of arthritis if a member of your family has the disorder. Age. The risk of getting many types of arthritis increases with age. Sex. Certain types of arthritis are more common in women, while other types are more common in men. Other factors that might increase your risk of getting arthritis include having a previous joint injury, obesity, or lupus. How is arthritis diagnosed? To find out if you have arthritis, your health care provider may Ask you about your medical history, including your symptoms. Do a physical exam. Order blood tests or take x-rays. Your provider may refer you to a rheumatologist (a doctor who specializes in arthritis care) for tests, diagnosis, and care. What are the treatments for arthritis? Treatment depends on the type of arthritis you have. It may include medicine or surgery. Your provider will work with you to improve your symptoms and quality of life. A few ways to help manage your symptoms include: Hot or cold packs Relaxation techniques, Use of splints, braces, and/or assistive devices. NIH: National Institute of Arthritis and Musculoskeletal and Skin Diseases.

Artificial Limbs

People can lose all or part of an arm or leg for a number of reasons. Common ones include: Circulation problems from atherosclerosis or diabetes. They may cause you to need an amputation. Traumatic injuries, including from traffic accidents and military combat Cancer Birth defects. If you are missing an arm or leg, an artificial limb can sometimes replace it. The device, which is called a prosthesis, can help you to perform daily activities such as walking, eating, or dressing. Some artificial limbs let you function nearly as well as before. .

Asbestos

Asbestos is the name of a group of minerals with long, thin fibers. It was once used widely as insulation. It also occurs in the environment. Asbestos fibers are so small you can't see them. If you disturb asbestos, the fibers can float in the air. This makes them easy to inhale, and some may become lodged in the lungs. If you breathe in high levels of asbestos over a long period of time, the fibers can build up in the lungs. This causes scarring and inflammation, and can affect breathing. Eventually it can lead to diseases such as Asbestosis, or scarring of the lungs that makes it hard to breathe Mesothelioma, a rare cancer that affects the lining of the lungs or abdomen Lung cancer Lung diseases associated with asbestos usually develop over many years. People who become ill from asbestos are usually exposed on the job over long periods of time. Smoking cigarettes increases the risk. Agency for Toxic Substances and Disease Registry .

Aspergillosis

Aspergillosis is a disease caused by a fungus (or mold) called Aspergillus. The fungus is very common in both indoors and outdoors. Most people breathe in the spores of the fungus every day without being affected. But some people get the disease. It usually occurs in people with lung diseases or weakened immune systems. There are different kinds of aspergillosis. One kind is allergic bronchopulmonary aspergillosis (also called ABPA). Symptoms of ABPA include wheezing and coughing. ABPA can affect healthy people but it is most common in people with asthma or cystic fibrosis. Another kind is invasive aspergillosis, which damages tissues in the body. It usually affects the lungs. Sometimes it can also cause infection in other organs and spread throughout the body. It affects people who have immune system problems, such as people who have had a transplant, are taking high doses of steroids, or getting chemotherapy for some cancers.

Your doctor might do a variety of tests to make the diagnosis, including a chest x-ray, CT scan of the lungs, and an examination of tissues for signs of the fungus. Treatment is with antifungal drugs. If you have ABPA, you may also take steroids. Centers for Disease Control and Prevention.

## Assisted Living

Assisted living is housing and services for people who need some help with daily care. They may need help with things like dressing, bathing, taking their medicines, and cleaning. But they do not need the medical care that a nursing home provides. Assisted living allows the residents to live more independently. Assisted living facilities sometimes have other names, such as adult care facilities or residential care facilities. They vary in size, with as few as 25 residents up to 120 residents or more. The residents usually live in their own apartments or rooms and share common areas. The facilities usually offer a few different levels of care. Residents pay more for the higher levels of care. The types of services they offer may be different from state to state. The services may include: Up to three meals a day, Assistance with personal care, such as bathing, dressing, eating, getting in and out of bed or chairs, moving around, and using the bathroom, Help with medicines, House keeping, Laundry 24-hour supervision, security, and on-site staff, Social and recreational activities, Transportation. The residents are usually older adults, including those with Alzheimer's or other types of dementia. But in some cases, residents may be younger and have mental illnesses, developmental disabilities, or certain medical conditions. NIH: National Institute on Aging.

## Assisted Reproductive Technology

Assisted reproductive technology (ART) is used to treat infertility. It includes fertility treatments that handle both eggs and sperm. It works by removing eggs from the ovaries. The eggs are then mixed with sperm to make embryos. The embryos are then put back in the parent's body. In vitro fertilization (IVF) is the most common and effective type of ART.ART procedures sometimes use donor eggs, donor sperm, or previously frozen embryos. It may also involve a surrogate or gestational carrier. A surrogate becomes pregnant with sperm from one partner of the couple. A gestational carrier becomes pregnant with an egg from one partner and sperm from the other partner. The most common complication of ART is a multiple pregnancy. It can be

prevented or minimized by limiting the number of embryos that are put into the parent's body. .

## Assistive Devices

What are assistive devices? Assistive devices are tools, products, or equipment that can help you perform tasks and activities. They may help you move around, see, communicate, eat, or get dressed. Who might benefit from assistive devices? You may use various assistive devices if you have a disability or injury, certain health conditions such as dementia, or if you've had a stroke. If you are an older adult, you might use an assistive device for a short time or long term. Others might use them throughout their lifespan. How can assistive devices help? Some assistive devices are high-tech tools, such as computers. Others are much simpler, like a "reacher," a tool that helps you grab an object you can't reach. There are a variety of assistive devices or tools available that may be used to help you to communicate, see, or hear better perform daily activities Move by using a wheelchair, walker, or another mobility device. Cook or eat dress or groom yourself improve your memory or attention. Be more active participate in educational activities assistive devices may also be used to make changes to your physical environment so it is easier to move or care for yourself. This can include adding ramps or grab bars.

## Asthma

What is asthma? Asthma is a chronic (long-term) lung disease. It affects your airways, the tubes that carry air in and out of your lungs. When you have asthma, your airways can become inflamed and narrowed. This can cause wheezing, coughing, and tightness in your chest. When these symptoms get worse than usual, it is called an asthma attack or flare-up. What causes asthma? The exact cause of asthma is unknown. Genetics and your environment likely play a role in who gets asthma. An asthma attack can happen when you are exposed to an asthma trigger. An asthma trigger is something that can set off or worsen your asthma symptoms. Different triggers can cause different types of asthma. Allergic asthma is caused by allergens. Allergens are substances that cause an allergic reaction. They can include dust mites, mold, pets, and pollen from grass, trees, and weeds. Waste from pests, such as cockroaches and mice, may also act as triggers. Nonallergic asthma is caused by triggers that are not allergens, such as breathing in cold

air, certain medicines, household chemicals, infections like colds and the flu, outdoor air pollution, and tobacco smoke. Occupational asthma is caused by breathing in chemicals or industrial dusts at work. Exercise-induced asthma happens during physical exercise, especially when the air is dry. Asthma triggers may be different for each person and can change over time. Who is at risk for asthma? Asthma affects people of all ages, but it often starts during childhood. Certain factors can raise your risk of having asthma: Being exposed to secondhand smoke when your mother is pregnant with you or when you are a small child, Being exposed to certain substances at work, such as chemical irritants or industrial dusts, Genetics and family history. You are more likely to have asthma if one of your parents has it, especially if it's your mother. Race or ethnicity. Black and African Americans and Puerto Ricans are at higher risk of asthma than people of other races or ethnicities. Having other diseases or conditions such as obesity and allergies, Often having viral respiratory infections as a young child sex. In children, asthma is more common in boys. In teens and adults, it is more common in women. What are the symptoms of asthma? The symptoms of asthma include: chest tightness coughing, especially at night or early morning, shortness of breath, wheezing, which causes a whistling sound when you breathe out. These symptoms can range from mild to severe. You may have them every day or only once in a while. When you are having an asthma attack, your symptoms get much worse. The attacks may come on gradually or suddenly. Sometimes they can be life-threatening. They are more common in people who have severe asthma. If you are having asthma attacks, you may need a change in your treatment. How is asthma diagnosed? Your health care provider may use many tools to diagnose asthma: Physical exam, medical history, Lung function tests, including spirometry, to test how well your lungs work. Tests to measure how your airways react to specific exposures. During this test, you inhale different concentrations of allergens or medicines that may tighten the muscles in your airways. Spirometry is done before and after the test. Peak expiratory flow (PEF) tests to measure how fast you can blow air out using maximum effort Fractional exhaled nitric oxide (FeNO) tests to measure levels of nitric oxide in your breath when you breathe out. High levels of nitric oxide may mean that your lungs are inflamed. Allergy skin or blood tests, if you have a history of allergies. These tests check which allergens cause a reaction from your immune system. What are the treatments for asthma? If you have asthma, you will work with your health care provider to create a treatment plan. The plan will include ways to manage your asthma symptoms and prevent asthma attacks. It will include strategies to avoid triggers. For example, if tobacco smoke is a trigger for you, you should not smoke or allow other

people to smoke in your home or car. Short-term relief medicines, also called quick-relief medicines. They help prevent symptoms or relieve symptoms during an asthma attack. They include an inhaler to carry with you all the time. It may also include other types of medicines which work quickly to help open your airways. Control medicines. You take them every day to help prevent symptoms. They work by reducing airway inflammation and preventing narrowing of the airways. If you have a severe attack and the short-term relief medicines do not work, you will need emergency care. Your provider may adjust your treatment until asthma symptoms are controlled. Sometimes asthma is severe and cannot be controlled with other treatments. If you are an adult with uncontrolled asthma, in some cases your provider might suggest bronchial thermoplasty. This is a procedure that uses heat to shrink the smooth muscle in the lungs. Shrinking the muscle reduces your airway's ability to tighten and allows you to breathe more easily. The procedure has some risks, so it's important to discuss them with your provider.

Asthma in Children

What is asthma? Asthma is a chronic (long-term) lung disease. It affects your airways, the tubes that carry air in and out of your lungs. When you have asthma, your airways can become inflamed and narrowed. This can cause wheezing, coughing, and tightness in your chest. When these symptoms get worse than usual, it is called an asthma attack or flare-up. How does asthma affect children? Asthma often starts during childhood, usually before age 5. Many children have asthma - it is the most common chronic disease of childhood. It can cause children to miss school and end up in the hospital. But treatments can help manage asthma. What causes asthma in children? The exact cause of asthma is unknown. Genetics and environment likely play a role in which children get asthma. An asthma attack can happen when your child is exposed to an asthma trigger. An asthma trigger is something that can set off or worsen asthma symptoms. Different triggers can cause different types of asthma. Allergic asthma is caused by allergens. Allergens are substances that cause an allergic reaction. They can include dust mites, mold pets pollen from grass, trees, and weeds. Waste from pests such as cockroaches and mice nonallergic asthma is caused by triggers that are not allergens, such as breathing in cold air certain medicines household chemicals Infections such as colds and the flu, outdoor air pollution, tobacco smoke. Exercise-induced asthma happens during physical exercise, especially when the air is dry. Asthma triggers may be different for each child and can change over time. Which children are at risk for asthma? Certain

factors raise the risk of asthma in children. Being exposed to secondhand smoke when their mother is pregnant with them or when they are small children genetics and family history. Children are more likely to have asthma if one of their parents has it, especially if it's the mother. Race or ethnicity. Black and African Americans and Puerto Ricans are at higher risk of asthma than people of other races or ethnicities. Having other diseases or conditions such as obesity and allergies. Often having viral respiratory infections as young children sex. In children, asthma is more common in boys. In teens, it is more common in girls. What are the symptoms of asthma in children? The symptoms of asthma in children include chest tightness coughing, especially at night or early morning breathing problems, such as shortness of breath, rapid breathing, or gasping for air, feeling tired, Dark circles under the eyes, being irritable wheezing, which causes a whistling sound when they breathe out, trouble eating or sucking (in infants)These symptoms can range from mild to severe. They may happen often or only once in a while. When children have an asthma attack, their symptoms get much worse. The attacks may come on gradually or suddenly. Sometimes they can be life-threatening. Warning signs of a severe attack include severe coughing, serious breathing problems, and turning very pale or blue in the face, lips and/or fingernails. If your child has those symptoms, get medical help right away. How is asthma in children diagnosed? It can be hard to diagnose asthma in children, especially if they are young. Asthma has similar symptoms as other childhood conditions. And some children may not have asthma symptoms very often, so it may seem like they are having respiratory infections instead. Your child's health care provider may use many tools to diagnose asthma, Physical exam, Medical history, Chest x-ray, Lung function tests, including spirometry, to test how well the lungs work. Younger children are usually not able to do these tests. Allergy skin or blood tests, if you have a history of allergies. These tests check which allergens cause a reaction from your immune system. If you have a young child who cannot do lung function tests, the provider may suggest doing a trial of asthma medicines. The trial involves giving your child the medicines for several weeks to see whether the symptoms get better. What are the treatments for asthma in children? If your child has asthma, you will work with their health care provider to create a treatment plan. The plan will include ways to manage your child's asthma symptoms and prevent asthma attacks, such as strategies to avoid triggers. For example, if tobacco smoke is a trigger for your child, you should not allow anyone to smoke in your home or car. Short-term relief medicines, also called quick-relief medicines. They help prevent symptoms or relieve symptoms during an asthma attack. They include an inhaler to have for your child at all times. It may also

include other types of medicines which work quickly to help open your child's airways. Control medicines. They work by reducing airway inflammation and preventing narrowing of the airways. Not all children will take control medicines. Whether or not your child needs them depends on how severe the asthma is and how often your child has symptoms. If your child has a severe attack and the short-term relief medicines do not work, get medical help right away. Your child's provider may adjust the treatment until the asthma symptoms are controlled.

## Ataxia Telangiectasia

Ataxia-telangiectasia (A-T) is a rare, inherited disease. It affects the nervous system, immune system, and other body systems. Symptoms appear in young children, usually before age 5. They include ataxia - trouble coordinating movements, poor balance slurred speech, tiny, red spider veins, called telangiectasias, on the skin and eyes, lung infections delayed physical and sexual development. People with A-T have an increased risk of developing diabetes and cancers, especially lymphoma and leukemia. Although it affects the brain, people with A-T usually have normal or high intelligence. A-T has no cure. Treatments might improve some symptoms. They include injections to strengthen the immune system, physical and speech therapy, and high-dose vitamins. NIH: National Institute of Neurological Disorders and Stroke.

## Atherosclerosis

What is atherosclerosis? Atherosclerosis is a condition in which plaque builds up inside your arteries. Plaque is a sticky substance made up of cholesterol, fat, blood cells, calcium, and other substances found in the blood. Over time, plaque hardens and causes your arteries to narrow. That limits the flow of oxygen-rich blood to your body. Some people may confuse atherosclerosis and arteriosclerosis, but they are not the same thing. Arteriosclerosis is hardening of the arteries, which means that the arteries thicken and become less flexible. It can have several different causes. Atherosclerosis, which develops from plaque buildup, is a common type of arteriosclerosis. Atherosclerosis can affect most of the arteries in the body. It has different names, based on which arteries are affected coronary artery disease (CAD) is plaque buildup in the arteries of your heart.

Peripheral artery disease (PAD) is plaque buildup in the arteries that carry blood away from the heart to other parts of the body. It most often affects the arteries of your legs,

but it can also affect the arteries of your arms or pelvis. Carotid artery disease is plaque buildup in the neck arteries. It reduces blood flow to the brain. Renal artery stenosis is plaque buildup in the arteries that supply blood to your kidneys. Vertebral artery disease is plaque buildup in the arteries that supply blood to the back of your brain. Mesenteric artery ischemia is plaque buildup in the arteries that supply your intestines with blood. What causes atherosclerosis? Plaque often starts to build up during childhood and gets worse with age. The exact cause is unknown, but researchers believe that this buildup happens when there is damage to the arteries. This damage may be caused by unhealthy lifestyle habits, medical conditions, and your genes. Who is more likely to develop atherosclerosis? You may be more likely to develop atherosclerosis if you have certain medical conditions, including: High blood pressure, High blood cholesterol diabetes, metabolic syndrome, Inflammatory diseases such as rheumatoid arthritis and psoriasis. Have a family history of high blood cholesterol or eat a lot of foods high in saturated fats smoke or chew tobacco are older - the risk increases after age 45 men and age 55 in women. What are the symptoms of atherosclerosis? In the early stages, atherosclerosis often does not cause any symptoms. You may first notice some symptoms at times when your body needs more oxygen. For example, this could be when you are having physical or emotional stress. Your symptoms will depend on which arteries are affected and how much blood flow is blocked with coronary artery disease, the symptoms may include angina (a type of chest pain), palpitations (racing or pounding heart), and shortness of breath. With carotid artery disease, you may have a bruit. This is a whooshing sound that your health care provider hears when using a stethoscope. You could also have a transient ischemic attack (TIA), sometimes called a mini-stroke. With peripheral artery disease, you may have pain, aching, heaviness, or cramping in the legs when walking or climbing stairs. With vertebral artery disease, you may have problems with thinking and memory, weakness or numbness on one side of the body or face, and vision trouble. You could also have a transient ischemic attack. With mesenteric artery ischemia, the symptoms can include severe pain after meals, weight loss, and diarrhea. For men, erectile dysfunction (ED) is an early warning sign that you may be at higher risk for atherosclerosis and its complications. If you have ED, talk with your provider about your risk of plaque buildup. What other problems can atherosclerosis cause? Atherosclerosis can cause other health problems, or complications. For example, if a plaque bursts, a blood clot may form. The clot could block the artery completely or travel to another part of the body. Other possible complications can vary, depending on which arteries are affected. For example, blockages in different parts of the body can lead to complications

such as a heart attack, stroke, vascular dementia, or limb loss. How is atherosclerosis diagnosed? To find out if you have atherosclerosis, your provider will ask about your medical and family health history will ask about your lifestyle and risk factors for plaque buildup in the arteries will do a physical exam, which will include listening to your heart and the blood flow in your arteries will likely order tests, such as blood tests and heart health tests. What are the treatments for atherosclerosis? If you have atherosclerosis, your provider will work with you to create a treatment plan that works for you. Your plan will depend on which arteries are affected, how much the blood flow is blocked, and what other medical conditions you have. Possible treatments may include heart-healthy lifestyle changes. Medicines to manage your risk factors. Treat atherosclerosis or its complications. Treat any medical conditions you have that can worsen plaque buildup. Procedures or surgeries to treat diseases or complications that were caused by plaque buildup. The specific type of procedure or surgery will depend on which arteries are affected. Cardiac rehabilitation, if you have had certain complications from atherosclerosis. Can atherosclerosis be prevented? There are steps you can take to try to prevent atherosclerosis choose heart-healthy foods, such fruits, vegetables, and whole grains. Limit foods that are high in saturated fats, salt, and added sugars. Do regular physical activity. But before you start an exercise program, ask your provider what level of physical activity is right for you. Aim for a healthy weight. Limit how much alcohol you drink. Drinking less is better for health than drinking more. Men should limit their intake to 2 drinks or less in a day. Women should drink 1 drink or less per day. Manage stress. If you smoke, quit smoking. Avoid secondhand smoke. Get enough good-quality sleep. NIH: National Heart, Lung, and Blood Institute.

Athlete’s Foot

Athlete's foot is a common infection caused by a fungus.  It most often affects the space between the toes. Symptoms include itching, burning, and cracked, scaly skin between your toes. You can get athlete's foot from damp surfaces, such as showers, swimming pools, and locker room floors. To prevent it, Keep your feet clean, dry, and cool wear clean socks. Don't walk barefoot in public areas. Wear flip-flops in locker room showers. Keep your toenails clean and clipped short treatments include over-the-counter antifungal creams for most cases and prescription medicines for more serious infections. These usually clear up the infection, but it can come back. Centers for Disease Control and Prevention.

Atrial Fibrillation

What is atrial fibrillation (AFib)? Atrial fibrillation, also known as AFib or AF, is one of the most common types of arrhythmias. Arrhythmias are problems with the rate or rhythm of your heartbeat. They can cause your heart to beat too slowly, too fast, or in an irregular way. If you have AFib, your heart beats irregularly and sometimes much faster than normal. Also, your heart's upper and lower chambers do not work together as they should. When this happens, the lower chambers do not fill completely or pump enough blood to your lungs and body. This can cause symptoms such as dizziness, fatigue, and a pounding heartbeat. AFib may happen in brief episodes, or it may be a permanent condition. It's very important to treat it, since AFib can put you at risk for stroke and other heart conditions. What causes atrial fibrillation (AFib)? AFib is most often caused by changes to the heart's tissue or the electrical signaling that helps the heartbeat. These changes can happen due to different conditions and factors, such as high blood pressure, coronary artery disease, congenital heart defects, infections, and aging. Sometimes the cause is unknown. Who is more likely to develop atrial fibrillation (AFib)? Anyone can develop AFib, but there are certain things that raise your risk for it, Aging. The risk of atrial fibrillation increases as you get older, especially when you are over age 65. Family history and genetics. Atrial fibrillation (AFib) can run in families, as can heart disease, which raises your risk of developing AFib. Certain lifestyle choices can also increase your risk. For example, your risk is higher if you consume excessive amounts of alcohol, use certain illegal drugs such as cocaine and methamphetamines, or smoke. Having specific health conditions can further contribute to your risk. These include high blood pressure, diabetes, heart failure, heart valve diseases, obesity, hyperthyroidism, chronic kidney disease, chronic obstructive pulmonary disease (COPD) and other lung diseases, and sleep apnea. Additionally, risk factors can vary based on race. AFib is more common in people with European ancestry. Recent surgery. You may be at risk of atrial fibrillation in the early days and weeks after surgery on your heart, lungs, or esophagus. What are the symptoms of atrial fibrillation (AFib)? Some people who have AFib don't have any symptoms and don't know they have it. If you do have symptoms, you may only notice them once in a while. Or you may have symptoms that are more frequent. And in some cases, the symptoms might be severe. If you have heart disease, you are more likely to notice your symptoms. And those symptoms could get worse if your heart disease gets worse. The symptoms of AFib can include extreme fatigue, which is the most common symptom heart palpitations (the feeling that your heart is skipping a beat,

fluttering, pounding, or beating too hard or too fast) trouble breathing, especially when lying down or when exercising chest pain, dizziness or fainting, low blood pressure. What other problems can AFib cause? If AFib is not treated, it can lead to serious health problems (complications) such as stroke heart failure, blood clots, sudden cardiac arrest (SCA)Cognitive impairment and dementia to help prevent these problems, it's important to contact your health care provider if you are having symptoms. If you do have AFib, the sooner you are diagnosed and treated, the better. How is atrial fibrillation (AFib) diagnosed? To find out if you have AFib, your provider will ask about your medical history, including your symptoms, lifestyle, and any other health conditions you may have will ask about your family history, to find out if you have relatives who have or had AFib will do a physical exam May order blood tests will likely order heart tests, such as an electrocardiogram (also called an EKG or ECG) and echocardiogram may ask you to wear a heart monitor device that records your heart's electrical activity. What are the treatments for atrial fibrillation (AFib)? The treatments for AFib may include blood thinner medicines that help prevent blood clots from forming. Medicines to control your heart's rhythm and rate. Following heart-healthy lifestyle changes, such as following a heart-healthy eating plan that limits saturated fats, salt, and cholesterol. An example is the DASH eating plan. Limiting or avoiding alcohol, because it can increase your heart rate. Aiming for a healthy weight. Getting regular physical activity. Managing stress. Quitting smoking. Procedures such as electrical cardioversion, which restores your heart rhythm using low-energy shocks to your heart. Catheter ablation, which scars the tissue that is causing the arrhythmia. The scar tissue blocks the abnormal heart signals. Surgeries such as surgery to put in a pacemaker to help control the arrhythmia. A Maze procedure, which creates scar tissue in a maze-like pattern in certain parts of the heart. Left atrial appendage closure, a surgery on a small sac in the muscle wall of your left atrium (the upper left chamber of your heart). It helps prevent blood clots and can reduce your risk of stroke. This surgery is for people who are not able to take blood thinners. Can atrial fibrillation (AFib) be prevented? There are steps you can take to help lower your risk of atrial fibrillation, such as making heart-healthy lifestyle changes following a heart-healthy eating plan limiting or avoiding alcohol, aiming for a healthy weight, Getting regular physical activity, managing stress, and not smoking. Avoiding illegal drugs, such as cocaine and methamphetamines, taking antiarrhythmic medicine (medicine to treat arrhythmia), if you are having heart surgery, treating any health conditions that could raise your risk of AFib. NIH: National Heart, Lung, and Blood Institute.

Attention Deficit Hyperactivity Disorder

What is attention deficit hyperactivity disorder (ADHD)? ADHD is a neurodevelopmental disorder. It is usually first diagnosed in childhood and often lasts into adulthood. But some people don't get diagnosed with ADHD until they are adults. ADHD involves having trouble paying attention (inattention), having trouble controlling impulsive behaviors (impulsivity), being overly active (hyperactivity). What are the types of attention deficit hyperactivity disorder (ADHD)? There are three types of ADHD: mostly Inattentive ADHD. People with this type of ADHD have trouble paying attention and are easily distracted. It's hard for them to organize or finish tasks. They may have trouble following instructions or conversations. Mostly Hyperactive-Impulsive ADHD. People with this type of ADHD have symptoms of both hyperactivity and impulsivity. With hyperactivity, people feel a need to always be moving. They have trouble sitting still and may fidget and/or talk too much. With impulsivity, people have trouble controlling their actions and words. They tend to act on sudden ideas or feelings without thinking about the possible results. They may interrupt others a lot or have trouble waiting their turn. Combined ADHD. People with this type of ADHD have a mix of inattentive and hyperactive-impulsive symptoms. Combined ADHD is the most common type. It's normal to sometimes have trouble paying attention or sitting still, especially for children. But people with ADHD have more severe symptoms that can sometimes cause serious problems, for example, failing grades for a child or a job loss for an adult. The symptoms are ongoing and may affect family and social life, too. What causes attention deficit hyperactivity disorder (ADHD)? The exact cause of ADHD is unknown. ADHD probably results from a combination of factors, such as genetics and your environment. Researchers are looking at possible environmental factors that might raise the risk of developing ADHD. These factors include brain injuries, nutrition, and social environments. What are the symptoms of attention deficit hyperactivity disorder (ADHD)? The symptoms of ADHD depend on the type of ADHD a person has people with symptoms of attention problems may often miss details or make careless mistakes in schoolwork, at work, or in other activities have trouble staying focused on play activities or work tasks not seem to listen when spoken to directly find it hard to follow instructions or finish tasks, or may start but get easily side tracked have trouble being organized, keeping belongings in order, and managing time avoid doing tasks that require long periods of mental effort lose important items, such as books, wallets, keys, eyeglasses, and cellphones, forget about doing daily activities. People with symptoms of hyperactivity-impulsivity may often fidget and squirm while seated get up when staying seated is

expected, such as at school or work, run around or climb when it's not appropriate (children) or feel restless (teens and adults) have trouble doing quiet activities, be constantly moving or "on the go" talk much more than is normal blurt out answers before questions are completed have trouble waiting for their turn Interrupt others for example during conversations or games people with combined ADHD show a mix of inattention and hyperactivity-impulsivity symptoms. How is attention deficit hyperactivity disorder (ADHD) diagnosed? There is no single test to diagnose ADHD. One step of the process for diagnosing ADHD involves having a physical exam, including vision tests, hearing tests (for children and adults), and other tests to rule out other problems with symptoms like ADHD. Other problems with similar symptoms include anxiety, depression, sleep problems, and certain types of learning disabilities. The process also involves a thorough medical history and family history.  And it usually includes using standardized ADHD symptom checklists, questionnaires, and/or interview questions. These tools have rating scales (scoring systems) that help the provider see if a person's symptoms and history fit a diagnosis of ADHD. To make a diagnosis of ADHD, the provider needs to have found all of these things. Several symptoms of ADHD that began before age 12. Several symptoms of inattention and/or hyperactivity-impulsivity that have lasted for at least 6 months and cause serious problems. For children up to age 16, there must be at least 6 ongoing symptoms. For people 17 and older, there must be at least 5 ongoing symptoms. Symptoms that happen in 2 or more settings, for example, at home and at work or school. Symptoms that clearly get in the way of functioning well at school, work, and/or in social situations. Symptoms aren't caused by another mental health disorder. What are the treatments for attention deficit hyperactivity disorder (ADHD)? Although there is no cure for ADHD, treatments may help reduce symptoms and improve functioning. ADHD is commonly treated with medicines. Psychotherapy (talk therapy), including behavior therapy. Education or training for parents to give them the skills and strategies to help their child. This is especially important for younger children. A combination of these treatments. Good treatment plans will include close monitoring, follow-ups, and making changes, if needed, along the way. Having a healthy lifestyle, such as healthy eating and regular exercise, may also help manage symptoms. For school-aged children, school support is important. This could include classroom-based behavioral interventions such as behavior management plans or teaching your child organizational and study skills. It may also include accommodations such as specific seating in the classroom, reduced classwork, or extended time on tests and exams. NIH: National Institute of Mental Health .

## Autism Spectrum Disorder

Autism spectrum disorder (ASD) is a neurological and developmental disorder that begins early in childhood and lasts throughout a person's life. It affects how a person acts and interacts with others, communicates, and learns. It includes what used to be known as Asperger syndrome and pervasive developmental disorders. It is called a "spectrum" disorder because people with ASD can have a range of symptoms. People with ASD might have problems talking with you, or they might not look you in the eye when you talk to them. They may also have restricted interests and repetitive behaviors. They may spend a lot of time putting things in order, or they may say the same sentence again and again. They may often seem to be in their "own world. "At well-child checkups, the health care provider should check your child's development. If there are signs of ASD, your child will have a comprehensive evaluation. It may include a team of specialists, doing various tests and evaluations to make a diagnosis. The causes of ASD are not known. Research suggests that both genes and environment play important roles. There is currently no one standard treatment for ASD. There are many ways to increase your child's ability to grow and learn new skills. Starting them early can lead to better results. Treatments include behavior and communication therapies, skills training, and medicines to control symptoms. NIH: National Institute of Child Health and Human Development.

## Autoimmune Diseases

What are autoimmune diseases? Your immune system protects you from disease and infection by attacking germs that get into your body, such as viruses and bacteria. Your immune system can tell that the germs aren't part of you, so it destroys them. If you have an autoimmune disease, your immune system attacks the healthy cells of your organs and tissues by mistake. There are more than 80 types of autoimmune diseases. They can affect almost any part of your body. For example, alopecia areata is an autoimmune disease of the skin that causes hair loss. Autoimmune hepatitis affects the liver. In type 1 diabetes, the immune system attacks the pancreas. And in rheumatoid arthritis, the immune system can attack many parts of the body, including the joints, lungs, and eyes. What causes autoimmune diseases? No one is sure why autoimmune diseases happen. But you can't catch them from other people. Autoimmune diseases do

tend to run in families, which means that certain genes may make some people more likely to develop a problem. Viruses, certain chemicals, and other things in the environment may trigger an autoimmune disease if you already have the genes for it. Who is at risk for autoimmune diseases? Millions of Americans of all ages have autoimmune diseases. Women develop many types of autoimmune diseases much more often than men. And if you have one autoimmune disease, you are more likely to get another. What are the symptoms of autoimmune diseases? The symptoms of an autoimmune disease depend on the part of your body that's affected. Many types of autoimmune diseases cause redness, swelling, heat, and pain, which are the signs and symptoms of inflammation. But other illnesses can cause the same symptoms. The symptoms of autoimmune diseases can come and go. During a flare-up, your symptoms may get severe for a while. Later on, you may have a remission, which means that your symptoms get better or disappear for a period of time. How are autoimmune diseases diagnosed? Doctors often have a hard time diagnosing autoimmune diseases. There's usually not a specific test to show whether you have a certain autoimmune disease. And the symptoms can be confusing. That's because many autoimmune diseases have similar symptoms. And some symptoms, such as muscle aches, are common in many other illnesses. So it can take a long time and some visits to different types of doctors to get a diagnosis. To help your doctor find out if an autoimmune disease is causing your symptoms, Learn about the health conditions in your family history. What health problems did your grandparents, aunts, uncles, and cousins have? Write down what you learn and share it with your doctor. Keep track of your symptoms, including how long they last and what makes them better or worse. Share your notes with your doctor. See a specialist who deals with the symptoms that bother you most. For example, if you have rash, see a dermatologist (skin doctor).What are the treatments for autoimmune diseases? The treatment depends on the disease. In most cases, the goal of treatment is to suppress (slow down) your immune system, and ease swelling, redness, and pain from inflammation. Your doctor may give you corticosteroids or other medicines to help you feel better. For some diseases, you may need treatment for the rest of your life.

Autonomic Nervous System Disorders

Your autonomic nervous system is the part of your nervous system that controls involuntary actions, such as the beating of your heart and the widening or narrowing of your blood vessels. When something goes wrong in this system, it can cause serious

problems, including blood pressure problems, heart problems, trouble with breathing and swallowing Erectile dysfunction in men. Autonomic nervous system disorders can occur alone or as the result of another disease, such as Parkinson's disease, alcoholism and diabetes. Problems can affect either part of the system, as in complex regional pain syndromes, or all of the system. Some types are temporary, but many worsen over time. When they affect your breathing or heart function, these disorders can be life-threatening. Some autonomic nervous system disorders get better when an underlying disease is treated. Often, however, there is no cure. In that case, the goal of treatment is to improve symptoms. NIH: National Institute of Neurological Disorders and Stroke.

## Benign Tumors

Tumors are abnormal growths in your body. They can be either benign or malignant. Benign tumors aren't cancer. Malignant ones are. Benign tumors grow only in one place. They cannot spread or invade other parts of your body. Even so, they can be dangerous if they press on vital organs, such as your brain. Tumors are made up of extra cells. Normally, cells grow and divide to form new cells as your body needs them. When cells grow old, they die, and new cells take their place. Sometimes, this process goes wrong. New cells form when your body does not need them, and old cells do not die when they should. These extra cells can divide without stopping and may form a tumor. Treatment often involves surgery. Benign tumors usually don't grow back. NIH: National Cancer Institute.

## Bird Flu

What is bird flu? Birds, just like people, can get the flu. Another name for bird flu is avian influenza. The viruses that cause bird flu normally only infect birds, including chickens, other poultry, and wild birds such as ducks. But sometimes the viruses can infect other animals and, in rare cases, people. A few types of these viruses have caused most of the infections in people. They are the H5N1, H7N9, and H5N6 viruses. These infections in people have mainly been in Asia, Africa, Europe, the Pacific, and the Near East. Although it's very rare, there have also been some infections in people in the United States. How do you get bird flu? The most common ways you can get bird flu are from touching your eyes, nose, or mouth after handling infected live or dead birds, touching surfaces or handling items contaminated by bird flu viruses and then touching your eyes, nose, or

mouth breathing in droplets or dust contaminated with the virus. It's also possible (but very rare) to get bird flu from another type of animal who has bird flu. Bird flu can also infect many other animals, including some dogs, cats, certain wild and zoo animals, and livestock such as cattle. These animals can then spread the flu to people. Another person. Eating poultry, eggs, and beef that were not properly handled and cooked. Drinking raw milk. Who is more likely to get bird flu? Certain people may be more likely to get bird flu, including poultry workers, Animal handlers wildlife biologists disease control workers Research laboratory workers Veterinarians. People who travel to countries where bird flu is present. What are the symptoms of bird flu in humans? Sometimes bird flu doesn't cause any symptoms. But if you do feel sick, your symptoms can range from mild to severe. Often, the symptoms are similar to the (seasonal) flu, such as fever (but not everyone has a fever) Cough, Sore throat, Runny or stuffy nose muscle or body aches fatigue, headaches, eye redness (conjunctivitis), trouble breathing, diarrhea. People with severe illness from bird flu may have pneumonia and might need to be hospitalized. How is bird flu diagnosed? Laboratory testing is used to diagnose bird flu. It's usually done with a nasal or throat swab. This testing is more accurate when the swab is collected during the first few days of illness. For people who are severely ill, health care providers may do testing of a different sample, such as fluid taken during a bronchoalveolar lavage or other procedure. What are the treatments for bird flu? Bird flu is treated with antiviral medicines. It's important to get them as soon as possible. The medicines may make your illness less severe. You may also be given antiviral medicines if you were exposed to a person or animal who has the virus. This may help prevent you from getting sick. Can bird flu be prevented? There is currently no vaccine available to the public. The government has developed a virus that is similar to some H5N1 viruses. The virus could be used to produce a vaccine for people, if needed. It's important to take precautions to prevent bird flu. If you have a job or pastime that puts you in contact with birds or other animals, make sure to use proper protective equipment. Otherwise try to avoid direct contact with wild birds and other animals. Wash your hands with soap and water after touching birds or other animals. Since it's possible to get bird flu through some foods, make sure to handle and cook your food safely and avoid raw milk. Centers for Disease Control and Prevention.

## Birth Defects

What are birth defects? A birth defect is a problem that happens while a baby is

developing in the mother's body. Most birth defects happen during the first 3 months of pregnancy. One out of every 33 babies in the United States is born with a birth defect. A birth defect may affect how the body looks, works, or both. Some birth defects like cleft lip or neural tube defects are structural problems that can be easy to see. Others, like heart disease, are found using special tests. Birth defects can range from mild to severe. How a birth defect affects a child's life depends mostly on which organ or body part is involved and how severe the defect is. What causes birth defects? For some birth defects, researchers know the cause. But for many birth defects, the exact cause is unknown. Researchers think that most birth defects are caused by a complex mix of factors, which can include genetics. One or more genes might have a change or mutation that prevents them from working properly. For example, this happens in Fragile X syndrome. With some defects, a gene or part of the gene might be missing. Chromosomal problems. In some cases, a chromosome or part of a chromosome might be missing. This is what happens in Turner syndrome. In other cases, such as with Down syndrome, the child has an extra chromosome. Exposures to medicines, chemicals, or other toxic substances. For example, alcohol misuse can cause fetal alcohol spectrum disorders. Infections during pregnancy. For example, infection with Zika virus during pregnancy can cause a serious defect in the brain. Lack of certain nutrients. Not getting enough folic acid before and during pregnancy is a key factor in causing neural tube defects. Who is at risk of having a baby with birth defects? Certain factors may increase the chances of having a baby with a birth defect, such as smoking, drinking alcohol, or taking certain "street" drugs during pregnancy having certain medical conditions, such as obesity or uncontrolled diabetes, before and during pregnancy taking certain medicines, having someone in your family with a birth defect. To learn more about your risk of having a baby with a birth defect, you can talk with a genetic counselor, Being an older mother, typically over the age of 34 years. How are birth defects diagnosed? Health care providers can diagnose some birth defects during pregnancy, using prenatal testing. That's why it important to get regular prenatal care. Other birth defects may not be found until after the baby is born. Providers may find them through newborn screening. Some defects, such as club foot, are obvious right away. Other times, the health care provider may not discover a defect until later in life, when the child has symptoms. What are the treatments for birth defects? Children with birth defects often need special care and treatments. Because the symptoms and problems caused by birth defects vary, the treatments also vary. Possible treatments may include surgery, medicines, assistive devices, physical therapy, and speech therapy. Often, children with birth defects need a

variety of services and may need to see several specialists. The primary health care provider can coordinate the special care that the child needs. Can birth defects be prevented? Not all birth defects can be prevented. But there are things you can do before and during pregnancy to increase your chance of having a healthy baby start prenatal care as soon as you think you might be pregnant, and see your health care provider regularly during pregnancy get 400 micrograms (mcg) of folic acid every day. If possible, you should start taking it at least one month before you get pregnant. Don't drink alcohol, smoke, or use "street" drugs talk to your health care provider about any medicines you are taking or thinking about taking. This includes prescription and over-the-counter medicines, as well as dietary or herbal supplements. Learn how to prevent infections during pregnancy. If you have any medical conditions, try to get them under control before you get pregnant centers for Disease Control and Prevention.

Blood

Your blood is made up of liquid and solids. The liquid part, called plasma, is made of water, salts, and protein. Over half of your blood is plasma. The solid part of your blood contains red blood cells, white blood cells, and platelets. Red blood cells (RBC) deliver oxygen from your lungs to your tissues and organs. White blood cells (WBC) fight infection and are part of your immune system. Platelets help blood to clot when you have a cut or wound. Bone marrow, the spongy material inside your bones, makes new blood cells. Blood cells constantly die and your body makes new ones. Red blood cells live about 120 days, and platelets live about 6 days. Some white blood cells live less than a day, but others live much longer. There are four blood types: A, B, AB, or O. Also, blood is either Rh-positive or Rh-negative. So if you have type A blood, it's either A positive or A negative. Which type you are is important if you need a blood transfusion. And your Rh factor could be important if you become pregnant - an incompatibility between your type and the baby's could create problems. Blood tests such as blood count tests help doctors check for certain diseases and conditions. They also help check the function of your organs and show how well treatments are working. Problems with your blood may include bleeding disorders, excessive clotting and platelet disorders. If you lose too much blood, you may need a transfusion. NIH: National Heart, Lung, and Blood Institute.

## Blood Pressure Medicines

What is high blood pressure? High blood pressure, also called hypertension, is when blood puts too much pressure against the walls of your arteries. Almost half of American adults have high blood pressure, usually with no symptoms. But it can cause serious problems such as stroke, heart failure, heart attack, and kidney disease. What lifestyle changes can help lower high blood pressure? Healthy lifestyle changes can help reduce high blood pressure, losing weight, being physically active managing stress, reducing sodium in your diet, avoiding alcohol, tobacco, and illegal drugs, getting enough sleep. What if lifestyle changes alone cannot lower blood pressure? Sometimes lifestyle changes alone cannot control or lower your high blood pressure. In that case, your health care provider may prescribe blood pressure medicines. How do blood pressure medicines work? The most commonly used blood pressure medicines work in different ways to lower blood pressure. Angiotensin-converting enzyme (ACE) inhibitors and angiotensin II receptor blockers (ARBs) keep your blood vessels from narrowing as much and allows blood to move through them with less pressure. Beta blockers help your heart beat slower and with less force. This means that your heart pumps less blood through your blood vessels. Beta blockers are typically used only as a backup option or if you also have certain other conditions. Calcium channel blockers prevent calcium from entering the muscle cells of your heart and blood vessels. This allows the blood vessels to relax. Diuretics remove extra water and sodium (salt) from your body. This lowers the amount of fluid in your blood. Diuretics are often used with other high blood pressure medicines, sometimes in one combined pill. Often, two or more medicines work better than one. If these medicines do not lower your blood pressure enough, your provider may suggest that you take another type of blood pressure medicine. While taking the medicines, it is still important to keep up with your healthy lifestyle changes. Doing both helps keep blood pressure lower than lifestyle changes or medicines alone. NIH: National Heart, Lung, and Blood Institute.

## Blood Thinners

What are blood thinners? Blood thinners are medicines that prevent blood clots from forming. They do not break up clots that you already have. But they can stop those clots from getting bigger. It's important to treat blood clots, because clots in your blood vessels and heart can cause heart attacks, strokes, and blockages. Who needs blood thinners? You may need a blood thinner if you have certain heart or blood vessel

diseases. An abnormal heart rhythm called atrial fibrillation. A heart valve replacement. A risk of blood clots after surgery. Congenital heart defects. What are the different types of blood thinners? There are different types of blood thinners: anticoagulants, such as heparin or warfarin (also called Coumadin), slow down your body's process of making clots. Antiplatelets, such as aspirin and clopidogrel, prevent blood cells called platelets from clumping together to form a clot. Antiplatelets are mainly taken by people who have had a heart attack or stroke. How can I take blood thinners safely? When you take a blood thinner, follow the directions carefully. Blood thinners may interact with certain foods, medicines, vitamins, and alcohol. Make sure that your health care provider knows all of the medicines and supplements you are using. You may need regular blood tests to check how well your blood is clotting. It is important to make sure that you're taking enough medicine to prevent clots, but not so much that it causes bleeding. What are the side effects of blood thinners? Bleeding is the most common side effect of blood thinners. They can also cause an upset stomach, nausea, and diarrhea. Other possible side effects can depend on which type of blood thinner that you are taking. Call your provider if you have any sign of serious bleeding, such as menstrual bleeding that is much heavier than normal red or brown urine bowel movements that are red or black bleeding from the gums or nose that does not stop quickly vomit that is brown or bright red coughing up something red severe pain, such as a headache or stomachache unusual bruising. A cut that does not stop bleeding. A serious fall or bump on the head dizziness or weakness.

Cancer Alternative Therapies

What are complementary and alternative therapies for cancer care? You have many choices to make about your cancer treatment. One choice you might consider is using complementary and alternative medicine (CAM). CAM is the term for medical products and therapies that are not part of standard medical care. CAM for cancer treatment involves caring for your mind, body, and spirit. Some methods focus on your breathing or body movements to help you relax. Other CAM therapies may use special foods, supplements, or diets. Examples of CAM therapies include acupuncture, chiropractic, and herbal medicines. CAM claims can sound promising, but often, researchers don't know how safe some are or how well they work. Studies are ongoing to find out the safety and usefulness of many of these methods. How are complementary and alternative therapies used for cancer care? If you're thinking about using CAM along with your

standard care, it's called integrative medicine. Some methods, such as acupuncture, might help with nausea, pain, and other side effects of cancer treatment. A few reasons that people with cancer may use CAM include to help cope with the side effects of cancer treatments. Ease worries about cancer treatment and related stress. Feel that they are doing something more to help their care. CAM treatments don't work for everyone. Some products might interact with your other medicines. Talk to your health care provider about all the different types of treatment you use. Your provider can help you make sure that everything you're using for your cancer care works well together. NIH: National Cancer Institute.

## Canker Sores

Canker sores are small, round sores in your mouth. They can be on the inside of your cheek, under your tongue, or in the back of your throat. They usually have a red edge and a gray center. They can be quite painful. They are not the same as cold sores, which are caused by herpes simplex. Canker sores aren't contagious. They may happen if you have a viral infection. They may also be triggered by stress, food allergies, lack of vitamins and minerals, hormonal changes or menstrual periods. In some cases the cause is unknown. In most cases, the sores go away by themselves. Some ointments, creams or rinses may help with the pain. Avoiding hot, spicy food while you have a canker sore also helps.

## Cataract

A cataract is a clouding of the lens in your eye.  It affects your vision.  Cataracts are very common in older people. By age 80, more than half of all Americans either have a cataract or have had cataract surgery. A cataract can occur in either or both eyes. It cannot spread from one eye to the other. Common symptoms are blurry vision colors that seem faded glare - headlights, lamps or sunlight may seem too bright. You may also see a halo around lights. Not being able to see well at night double vision frequent prescription changes in your eye wear Cataracts usually develop slowly. New glasses, brighter lighting, anti-glare sunglasses or magnifying lenses can help at first. Surgery is also an option. It involves removing the cloudy lens and replacing it with an artificial lens. Wearing sunglasses and a hat with a brim to block ultraviolet sunlight may help to delay cataracts. NIH: National Eye Institute.

## Cerebellar Disorders

When you play the piano or hit a tennis ball you are activating the cerebellum. The cerebellum is the area of the brain that controls coordination and balance. Problems with the cerebellum include cancer genetic disorders, ataxias - failure of muscle control in the arms and legs that result in movement disorders, degeneration - disorders caused by brain cells decreasing in size or wasting away treatment of cerebellar disorders depends on the cause. In some cases, there is no cure but treatment may help with symptoms. NIH: National Institute of Neurological Disorders and Stroke.

## Chiari Malformation

Chiari malformations (CMs) are structural defects in the cerebellum. The cerebellum is the part of the brain that controls balance. With CM, brain tissue extends into the spinal canal. It can happen when part of the skull is too small, which pushes the brain tissue down. There are several types of CM. One type often happens in children who have neural tube defects. Some types cause no symptoms and don't need treatment. If you have symptoms, they may include neck pain, balance problems, numbness or other abnormal feelings in the arms or legs dizziness, vision problems, difficulty swallowing, poor hand coordination. Doctors diagnose CM using imaging tests. Medicines may ease some symptoms, such as pain. Surgery is the only treatment available to correct or stop the progression of nerve damage. NIH: National Institute of Neurological Disorders and Stroke.

## Child Abuse

Child abuse is doing something or failing to do something that results in harm to a child or puts a child at risk of harm. Child abuse can be physical, sexual or emotional. Neglect, or not providing for a child's needs, is also a form of abuse. Most abused children suffer greater emotional than physical damage. An abused child may become depressed. He or she may withdraw, think of suicide or become violent. An older child may use drugs or alcohol, try to run away or abuse others. Child abuse is a serious problem. If you suspect a child is being abused or neglected, call the police or your local child welfare agency.

## Club Drugs

What are club drugs? Club drugs are a group of psychoactive drugs. They act on the central nervous system and can cause changes in mood, awareness, and behavior. These drugs are most often used by young adults at bars, concerts, nightclubs, and parties. Club drugs, like most drugs, have nicknames that change over time or are different in different areas of the country. What are the different types of club drugs? The most commonly used types of club drugs include MDMA (Methylenedioxymethamphetamine), also called Ecstasy and Molly GHB (Gamma-hydroxybutyrate), also known as G and Liquid Ecstasy, Ketamine, also known as Special K and KRohypnol, also known as roofies methamphetamine, also known as Speed, Ice, and, Meth LSD (Lysergic Acid Diethylamide), also known as Acid. Some of these drugs are approved for certain medical uses. Other uses of these drugs are misuse. What are date rape drugs? Date rape drugs are any type of drug or alcohol used to make sexual assault easier. Someone could put one in your drink when you are not looking. Or you may be drinking alcohol or taking a drug, and a person may make it stronger without you knowing. Club drugs are also sometimes used as "date rape" drugs. These drugs are very powerful. They can affect you very quickly, and you might not know that something is wrong. The length of time that the effects last varies. It depends on how much of the drug is in your body and if the drug is mixed with other drugs or alcohol. Alcohol can make the effects of drugs even stronger and can cause serious health problems - even death. Are there steps I can take to protect myself from date rape drugs? To try to avoid date rape drugs, never leave your drink unattended. Don't accept drinks from other people. If drinking from a can or bottle, open your drink yourself. Look out for your friends, and ask them to look out for you.

## Collapsed Lung

A collapsed lung happens when air enters the pleural space, the area between the lung and the chest wall. If it is a total collapse, it is called pneumothorax. If only part of the lung is affected, it is called atelectasis. Causes of a collapsed lung include lung diseases such as pneumonia or lung cancer, being on a breathing machine surgery on the chest or abdomen. A blocked airway. If only a small area of the lung is affected, you may not have symptoms. If a large area is affected, you may feel short of breath and have a rapid heart rate. A chest x-ray can tell if you have it. Treatment depends on the underlying cause. NIH: National Heart, Lung, and Blood Institute.

## Complementary and Integrative Medicine

Many Americans use medical treatments that are not part of mainstream medicine. When you are using these types of care, it may be called complementary, integrative, or alternative medicine. Complementary medicine is used together with mainstream medical care. An example is using acupuncture to help with side effects of cancer treatment. When health care providers and facilities offer both types of care, it is called integrative medicine. Alternative medicine is used instead of mainstream medical care. The claims that non-mainstream practitioners make can sound promising. However, researchers do not know how safe many of these treatments are or how well they work. Studies are underway to determine the safety and usefulness of many of these practices. To minimize the health risks of a non-mainstream treatment. Discuss it with your doctor. It might have side effects or interact with other medicines. Find out what the research says about it choose practitioners carefully tell all of your doctors and practitioners about all of the different types of treatments you use. NIH: National Center for Complementary and Integrative Health.

## Coronary Artery Disease

Coronary artery disease (CAD) is the most common type of heart disease. It is the leading cause of death in the United States in both men and women. CAD happens when the arteries that supply blood to heart muscle become hardened and narrowed. This is due to the buildup of cholesterol and other material, called plaque, on their inner walls. This buildup is called atherosclerosis. As it grows, less blood can flow through the arteries. As a result, the heart muscle can't get the blood or oxygen it needs. This can lead to chest pain (angina) or a heart attack. Most heart attacks happen when a blood clot suddenly cuts off the hearts' blood supply, causing permanent heart damage. Over time, CAD can also weaken the heart muscle and contribute to heart failure and arrhythmias. Heart failure means the heart can't pump blood well to the rest of the body. Arrhythmias are changes in the normal beating rhythm of the heart. NIH: National Heart, Lung, and Blood Institute.

## Critical Care

What is critical care? Critical care is medical care for people who have life-threatening injuries and illnesses. It usually takes place in an intensive care unit (ICU). A team of specially-trained health care providers gives you 24-hour care. This includes using machines to constantly monitor your vital signs. It also usually involves giving you specialized treatments. Who needs critical care? You need critical care if you have a life-threatening illness or injury, such as severe burns COVID-19 Heart attack, heart failure kidney failure People recovering from certain major surgeries respiratory failure sepsis severe bleeding, serious infections, serious injuries, such as from car crashes, falls, and shootings shock stroke. What happens in a critical care unit? In a critical care unit, health care providers use lots of different equipment, including catheters, flexible tubes used to get fluids into the body or to drain fluids from the body dialysis machines ("artificial kidneys") for people with kidney failure feeding tubes, which give you nutritional support Intravenous (IV) tubes to give you fluids and medicines machines which check your vital signs and display them on monitors oxygen therapy to give you extra oxygen to breathe in tracheostomy tubes, which are breathing tubes. The tube is placed in a surgically made hole that goes through the front of the neck and into the windpipe. Ventilators (breathing machines), which move air in and out of your lungs. This is for people who have respiratory failure. These machines can help keep you alive, but many of them can also raise your risk of infection. Sometimes people in a critical care unit are not able to communicate. It's important that you have an advance directive in place. This can help your health care providers and family members make important decisions, including end-of-life decisions, if you are not able to make them.

Degenerative Nerve Diseases

Degenerative nerve diseases affect many of your body's activities, such as balance, movement, talking, breathing, and heart function. Many of these diseases are genetic. Sometimes the cause is a medical condition such as alcoholism, a tumor, or a stroke. Other causes may include toxins, chemicals, and viruses.  Sometimes the cause is unknown. Degenerative nerve diseases include Alzheimer's disease, amyotrophic lateral sclerosis, Friedreich's ataxia, Huntington's disease, Lewy body disease, Parkinson's disease, and spinal muscular atrophy. These degenerative nerve diseases can be serious or life threatening. It depends on the type. Most of them have no cure. Treatments may help improve symptoms, relieve pain, and increase mobility.

Drugs & Supplements

What is high blood pressure? High blood pressure, also called hypertension, is when blood puts too much pressure against the walls of your arteries. Almost half of American adults have high blood pressure, usually with no symptoms. But it can cause serious problems such as stroke, heart failure, heart attack, and kidney disease. What lifestyle changes can help lower high blood pressure? Healthy lifestyle changes can help reduce high blood pressure losing weight, being physically active, managing stress, reducing sodium in your diet, avoiding alcohol, tobacco, and illegal drugs, getting enough sleep. What if lifestyle changes alone cannot lower blood pressure? Sometimes lifestyle changes alone cannot control or lower your high blood pressure. In that case, your health care provider may prescribe blood pressure medicines. How do blood pressure medicines work? The most commonly used blood pressure medicines work in different ways to lower blood pressure angiotensin-converting enzyme (ACE) inhibitors and angiotensin II receptor blockers (ARBs) keep your blood vessels from narrowing as much and allows blood to move through them with less pressure. Beta blockers help your heart beat slower and with less force. This means that your heart pumps less blood through your blood vessels. Beta blockers are typically used only as a backup option or if you also have certain other conditions. Calcium channel blockers prevent calcium from entering the muscle cells of your heart and blood vessels. This allows the blood vessels to relax. Diuretics remove extra water and sodium (salt) from your body. This lowers the amount of fluid in your blood. Diuretics are often used with other high blood pressure medicines, sometimes in one combined pill. Often, two or more medicines work better than one. If these medicines do not lower your blood pressure enough, your provider may suggest that you take another type of blood pressure medicine. While taking the medicines, it is still important to keep up with your healthy lifestyle changes. Doing both helps keep blood pressure lower than lifestyle changes or medicines alone. NIH: National Heart, Lung, and Blood Institute.

Dwarfism

People with dwarfism have short stature. This means that their height is under 4' 10" as an adult. They are usually of normal intelligence. Dwarfism most often does happen in families where both parents are of average height. More than 300 different conditions can cause dwarfism. Achondroplasia is the most common type of dwarfism. Achondroplasia is a genetic condition that affects about 1 in 15,000 to 1 in 40,000

people. It makes your arms and legs short in comparison to your head and trunk. You may also have a larger head and weak muscle tone. Other genetic conditions, kidney disease, and problems with metabolism or hormones can also cause dwarfism. The conditions that cause dwarfism can also cause other health problems. Most of them are treatable. It is important to have regular checkups throughout your life. With proper medical care, most people with dwarfism have active lives and live as long as other people.

Eating Disorders

What are eating disorders? Eating disorders are serious mental health disorders. They involve severe problems with your thoughts about food and your eating behaviors. You may eat much less or much more than you need. Eating disorders are medical conditions; they are not a lifestyle choice. They affect your body's ability to get proper nutrition. This can lead to health issues, such as heart and kidney problems, or sometimes even death. But there are treatments that can help. What are the types of eating disorders? Common types of eating disorders include binge-eating, which is out-of-control eating. People with binge-eating disorder keep eating even after they are full. They often eat until they feel very uncomfortable. Afterward, they usually have feelings of guilt, shame, and distress. Eating too much too often can lead to weight gain and obesity. Binge-eating disorder is the most common eating disorder in the U.S. Bulimia nervosa. People with bulimia nervosa also have periods of binge-eating. But afterwards, they purge, by making themselves throw up or using laxatives. They may also over-exercise or fast. People with bulimia nervosa may be slightly underweight, normal weight, or overweight. Anorexia nervosa. People with anorexia nervosa avoid food, severely restrict food, or eat very small quantities of only certain foods. They may see themselves as overweight, even when they are dangerously underweight. Anorexia nervosa is the least common of the three eating disorders, but it is often the most serious. It has the highest death rate of any mental disorder. What causes eating disorders? The exact cause of eating disorders is unknown. Researchers believe that eating disorders are caused by a complex interaction of factors. These include genetic, biological, behavioral, psychological, and social factors. Who is at risk for eating disorders? Anyone can develop an eating disorder, but they are more common in women. Eating disorders frequently appear during the teen years or young adulthood. But people can also develop them during childhood or later in life. What are the symptoms of eating disorders? The

symptoms of eating disorders vary, depending on the disorder. The symptoms of binge-eating include eating unusually large amounts of food in a specific amount of time, such as a 2-hour period, eating even when you're full or not hungry, eating fast during binge episodes, eating until you're uncomfortably full, eating alone or in secret to avoid embarrassment, feeling distressed, ashamed, or guilty about your eating, frequently dieting, possibly without weight loss. The symptoms of bulimia nervosa include the same symptoms as binge-eating, plus trying to get rid of the food or weight after binging by purging, making yourself throw up or using laxatives or enemas to speed up the movement of food through your body, doing intensive and excessive exercise fasting over time, bulimia nervosa can cause health problems such as chronically inflamed and sore throat, swollen salivary glands in the neck and jaw area, worn tooth enamel and increasingly sensitive and decaying teeth. This is caused by the exposure to stomach acid every time you throw up. GERD (acid reflux) and other gastrointestinal problems, severe dehydration from purging electrolyte imbalance, which could be too low or too high levels of sodium, calcium, potassium and other minerals. This can lead to a stroke or heart attack. The symptoms of anorexia nervosa include eating very little, to the point of starving yourself, intensive and excessive exercise, extreme thinness, intense fear of gaining weight, distorted body image seeing yourself as overweight even when you are severely under weight over time, anorexia nervosa can cause health problems such as thinning of the bones (osteopenia or osteoporosis)Mild anemia, muscle wasting and weakness, thin, brittle hair and nails, dry, blotchy, or yellowish skin, growth of fine hair all over the body, severe constipation, low blood pressure, slowed breathing and pulse, feeling cold all the time because of a drop in internal body temperature, feeling faint, dizzy, or weak, feeling tired all the time infertility damage to the structure and function of the heart, brain damage, multiorgan failure. Anorexia nervosa can be fatal. Some people with this disorder die of complications from starvation, and others die of suicide. Some people with eating disorders may also have other mental disorders (such as depression or anxiety) or problems with substance use. How is eating disorders diagnosed? Because eating disorders can be so serious, it is important to seek help if you or a loved one thinks that you might have a problem. Your health care provider may use many tools to make a diagnosis. A medical history, which includes asking about your symptoms. It is important to be honest about your eating and exercise behaviors so your provider can help you. A physical exam, blood or urine tests to rule out other possible causes of your symptoms. Other tests to see whether you have any other health problems caused by the eating disorder. These can include kidney function tests and an

electrocardiogram (EKG or ECG).What are the treatments for eating disorders? Treatment plans for eating disorders are tailored to individual needs. You will likely have a team of providers helping you, including doctors, nutritionists, nurses, and therapists. The treatments may include individual, group, and/or family psychotherapy. Individual therapy may include cognitive behavioral approaches, which help you to identify and change negative and unhelpful thoughts. It also helps you build coping skills and change behavioral patterns. Medical care and monitoring, including care for the complications that eating disorders can cause nutrition counseling. Doctors, nurses, and counselors will help you eat healthy to reach and maintain a healthy weight. Medicines, such as antidepressants, antipsychotics, or mood stabilizers, may help treat some eating disorders. The medicines can also help with the depression and anxiety symptoms that often go along with eating disorders. Some people with serious eating disorders may need to be in a hospital or in a residential treatment program. Residential treatment programs combine housing and treatment services. NIH: National Institute of Mental Health.

## Ectopic Pregnancy

The uterus, or womb, is the place where a baby grows when a woman is pregnant. If you have an ectopic pregnancy, the fertilized egg grows in the wrong place, outside the uterus, usually in the fallopian tubes. The result is usually a miscarriage. Ectopic pregnancy can be a medical emergency if it ruptures. Signs of ectopic pregnancy include abdominal pain, shoulder pain, vaginal bleeding, feeling dizzy or faint. Get medical care right away if you have these signs. Doctors use drugs or surgery to remove the ectopic tissue so it doesn't damage your organs. Many women who have had ectopic pregnancies go on to have healthy pregnancies later. Dept. of Health and Human Services Office on Women's Health.

## Eczema

Eczema is a term for several different types of skin swelling. Eczema is also called dermatitis. Most types cause dry, itchy skin and rashes on the face, inside the elbows and behind the knees, and on the hands and feet. Scratching the skin can cause it to turn red, and to swell and itch even more. Eczema is not contagious. The cause of eczema is unknown. It is likely caused by both genetic and environmental factors. Eczema may get

better or worse over time, but it is often a long-lasting disease. People who have it may also develop hay fever and asthma. The most common type of eczema is atopic dermatitis. It is most common in babies and children, but adults can have it too. As children who have atopic dermatitis grow older, this problem may get better or go away. But sometimes the skin may stay dry and get irritated easily. Treatments may include medicines, skin creams, light therapy, and good skin care. You can prevent some types of eczema by avoiding things that irritate your skin, such as certain soaps, fabrics, and lotions stress things you are allergic to, such as food, pollen, and animals NIH: National Institute of Arthritis and Musculoskeletal and Skin Diseases.

## Elder Abuse

Many older people are victims of elder abuse. It is the mistreatment of an older person, usually by a caregiver. It can happen within the family. It can also happen in assisted living facilities or nursing homes. The mistreatment may be physical, sexual, or emotional abuse neglect or abandonment financial abuse - stealing of money or belongings possible signs of elder abuse include unexplained bruises, burns, and injuries. There may also be bed sores and poor hygiene. The person may become withdrawn, agitated, and depressed. There may be a sudden change in the person's financial situation. Elder abuse will not stop on its own. Someone else needs to step in and help. If you think that an older person is in urgent danger, call 911. Otherwise, contact adult protective services. NIH: National Institute on Aging.

## Medical Encyclopedia

If you get very sick or badly hurt and need help right away, you should use emergency medical services. These services use specially trained people and specially equipped facilities. You may need care in the hospital emergency room (ER). Doctors and nurses there treat emergencies, such as heart attacks and injuries. For some emergencies, you need help where you are. Emergency medical technicians, or EMTs, do specific rescue jobs. They answer emergency calls and give basic medical care. Some EMTs are paramedics - they have training to do medical procedures on site. They usually take you to the ER for more care. If you or someone you know needs emergency care, go to your hospital's emergency room. If you think the problem is life-threatening, call 911.

Endometriosis

What is endometriosis? The uterus, or womb, is the place where a fetus grows during pregnancy. The uterus is lined with tissue (endometrium). Endometriosis is a disease in which tissue like the lining of the uterus grows in other places in your body. These patches of tissue are called "implants," "nodules," or "lesions." They are most often found on or under the ovaries on the fallopian tubes, which carry eggs from the ovaries to the uterus behind the uterus, on the tissues that hold the uterus in place, on the bowels or bladder. In rare cases, the tissue may grow on your lungs or in other parts of your body. What causes endometriosis? Researchers don't know what causes endometriosis. Who is at risk for endometriosis? Endometriosis can affect anyone who menstruates. Certain factors can raise or lower your risk of getting it. You are at higher risk if you have a mother, sister, or daughter with endometriosis, your period started before age 11, your monthly cycles are short (less than 27 days), your menstrual cycles are heavy and last more than 7 days, you have a lower risk if you have been pregnant before your periods started late in adolescence, you breastfeed your babies. What are the symptoms of endometriosis? The main symptoms of endometriosis are pelvic pain, which often happens during your period. Infertility other possible symptoms include painful menstrual cramps, which may get worse over time, pain during or after sex, pain in the intestine or lower abdomen, pain with bowel movements (pooping) or urination (peeing), usually during your period, heavy periods, spotting or bleeding between periods, digestive or gastrointestinal symptoms, fatigue or lack of energy. How is endometriosis diagnosed? Surgery is the only way to know for sure that you have endometriosis. First, however, your health care provider will ask about your symptoms and medical history. You will have a pelvic exam and may have some imaging tests. The most common surgery to diagnose endometriosis is a laparoscopy. This is a type of surgery that uses a laparoscope, a thin tube with a camera and light. The surgeon inserts the laparoscope through a small cut in the skin near your belly button. Your provider can make a diagnosis based on how the patches of endometriosis look. They may also do a biopsy to get a tissue sample. What are the treatments for endometriosis? There is no cure for endometriosis, but there are treatments for the symptoms. Your provider will work with you to decide which treatments would be best for you. Treatments for endometriosis pain include pain relievers, including nonsteroidal anti-inflammatory drugs (NSAIDS) such as ibuprofen and a prescription medicine specifically for endometriosis. Providers may sometimes prescribe opioids for severe pain. Hormone therapy, which stops the ovaries from making hormones. This may slow the growth of the endometrial tissue and may

stop new areas from growing. Types of hormone therapy include Birth control pills. Progestin therapy. Gonadotropin-releasing hormone (GnRH) medicines (GnRH agonists and antagonists). These medicines cause a temporary menopause. After your stop taking the medicines, your menstrual periods will start again, and pregnancy is possible. Surgical treatments for severe pain, including procedures to remove the endometriosis patches or cut some nerves in the pelvis. The surgery may be a laparoscopy or major surgery. Treatments for infertility caused by endometriosis include laparoscopy to remove the endometriosis patches in vitro fertilization. NIH: National Institute of Child Health and Human Development.

## Esophagus Disorders

The esophagus is the muscular tube that carries food and liquids from your mouth to the stomach. You may not be aware of your esophagus until you swallow something too large, too hot, or too cold. You may also notice it when something is wrong. You may feel pain or have trouble swallowing. The most common problem with the esophagus is GERD (gastroesophageal reflux disease). With GERD, a muscle at the end of your esophagus does not close properly. This allows stomach contents to leak back, or reflux, into the esophagus and irritate it. Over time, GERD can cause damage to the esophagus. Other problems include heartburn, cancer, and eosinophilic esophagitis. Doctors may use various tests to make a diagnosis. These include imaging tests, an upper endoscopy, and a biopsy. Treatment depends on the problem. Some problems get better with over-the-counter medicines or changes in diet. Others may need prescription medicines or surgery. NIH: National Institute of Diabetes and Digestive and Kidney Diseases.

## Falls

Falls can be dangerous at any age. Babies and young children can get hurt falling off furniture or down the stairs. Older children may fall off playground equipment. For older adults, falls can be especially serious. They are at higher risk of falling. They are also more likely to fracture (break) a bone when they fall, especially if they have osteoporosis. A broken bone, especially when it is in a hip, may even lead to disability and a loss of independence for older adults. Some common causes of falls include balance problems. Some medicines, which can make you feel dizzy, confused, or slow vision problems alcohol, which can affect your balance and reflexes, muscle weakness, especially in your

legs, which can make it harder for you to get up from a chair or keep your balance when walking on an uneven surface. Certain illnesses, such as low blood pressure, diabetes, and neuropathy, slow reflexes, which make it hard to keep your balance or move out of the way of a hazard. Tripping or slipping due to loss of footing or traction at any age, people can make changes to lower their risk of falling. It important to take care of your health, including getting regular eye exams. Regular exercise may lower your risk of falls by strengthening your muscles, improving your balance, and keeping your bones strong. And you can look for ways to make your house safer. For example, you can get rid of tripping hazards and make sure that you have rails on the stairs and in the bath. To reduce the chances of breaking a bone if you do fall, make sure that you get enough calcium and vitamin D. NIH: National Institute on Aging.

Fatty Liver Disease

What is fatty liver disease? Your liver is the largest organ inside your body. It helps your body digest food, store energy, and remove poisons. Fatty liver disease is a condition in which fat builds up in your liver. There are two main types nonalcoholic fatty liver disease (NAFLD)Alcoholic fatty liver disease, also called alcoholic steatohepatitis. What is nonalcoholic fatty liver disease (NAFLD)? NAFLD is a type of fatty liver disease that is not related to heavy alcohol use. There are two kinds simple fatty liver, in which you have fat in your liver but little or no inflammation or liver cell damage. Simple fatty liver typically does not get bad enough to cause liver damage or complications. Nonalcoholic steatohepatitis (NASH), in which you have inflammation and liver cell damage, as well as fat in your liver. Inflammation and liver cell damage can cause fibrosis, or scarring, of the liver. NASH may lead to cirrhosis or liver cancer. What is alcoholic fatty liver disease? Alcoholic fatty liver disease is due to heavy alcohol use. Your liver breaks down most of the alcohol you drink, so it can be removed from your body. But the process of breaking it down can generate harmful substances. These substances can damage liver cells, promote inflammation, and weaken your body's natural defenses. The more alcohol that you drink, the more you damage your liver.  Alcoholic fatty liver disease is the earliest stage of alcohol-related liver disease. The next stages are alcoholic hepatitis and cirrhosis. Who is at risk for fatty liver disease? The cause of nonalcoholic fatty liver disease (NAFLD) is unknown. Researchers do know that it is more common in people who have type 2 diabetes and prediabetes, have obesity, are middle aged or older (although children can also get it), are Hispanic, followed by non-Hispanic Whites. It is

less common in African Americans, have high levels of fats in the blood, such as cholesterol and triglycerides, have high blood pressure, take certain drugs, such as corticosteroids and some cancer drugs, have certain metabolic disorders, including metabolic syndrome, have rapid weight loss, have certain infections, such as hepatitis CHave been exposed to some toxins NAFLD affects about 25% of people in the world. As the rates of obesity, type 2 diabetes, and high cholesterol are rising in the United States, so is the rate of NAFLD. NAFLD is the most common chronic liver disorder in the United States. Alcoholic fatty liver disease only happens in people who are heavy drinkers, especially those who have been drinking for a long period of time. The risk is higher for heavy drinkers who are women, have obesity, or have certain genetic mutations. What are the symptoms of fatty liver disease? Both NAFLD and alcoholic fatty liver disease are usually silent diseases with few or no symptoms. If you do have symptoms, you may feel tired or have discomfort in the upper right side of your abdomen. How is fatty liver disease diagnosed? Because there are often no symptoms, it is not easy to find fatty liver disease. Your doctor may suspect that you have it if you get abnormal results on liver tests that you had for other reasons. To make a diagnosis, your doctor will use your medical history, a physical exam, various tests, including blood and imaging tests, and sometimes a biopsy as part of the medical history, your doctor will ask about your alcohol use, to find out whether fat in your liver is a sign of alcoholic fatty liver disease or nonalcoholic fatty liver (NAFLD). He or she will also ask which medicines you take, to try to determine whether a medicine is causing your NAFLD. During the physical exam, your doctor will examine your body and check your weight and height. Your doctor will look for signs of fatty liver disease, such as an enlarged liver signs of cirrhosis, such as jaundice, a condition that causes your skin and whites of your eyes to turn yellow. You will likely have blood tests, including liver function tests and blood count tests. In some cases, you may also have imaging tests, like those that check for fat in the liver and the stiffness of your liver. Liver stiffness can mean fibrosis, which is scarring of the liver. In some cases, you may also need a liver biopsy to confirm the diagnosis, and to check how bad the liver damage is. What are the treatments for fatty liver disease? Doctors recommend weight loss for nonalcoholic fatty liver. Weight loss can reduce fat in the liver, inflammation, and fibrosis. If your doctor thinks that a certain medicine is the cause of your NAFLD, you should stop taking that medicine. But check with your doctor before stopping the medicine. You may need to get off the medicine gradually, and you might need to switch to another medicine instead. There are no medicines that have been approved to treat NAFLD. Studies are investigating whether a

certain diabetes medicine or Vitamin E can help, but more studies are needed. The most important part of treating alcohol-related fatty liver disease is to stop drinking alcohol. If you need help doing that, you may want to see a therapist or participate in an alcohol recovery program. There are also medicines that can help, either by reducing your cravings or making you feel sick if you drink alcohol. Both alcoholic fatty liver disease and one type of nonalcoholic fatty liver disease (nonalcoholic steatohepatitis) can lead to cirrhosis. Doctors can treat the health problems caused by cirrhosis with medicines, operations, and other medical procedures. If the cirrhosis leads to liver failure, you may need a liver transplant. What are some lifestyle changes that can help with fatty liver disease? If you have any of the types of fatty liver disease, there are some lifestyle changes that can help eat a healthy diet, limiting salt and sugar, plus eating lots of fruits, vegetables, and whole grains, get vaccinations for hepatitis A and B, the flu and pneumococcal disease. If you get hepatitis A or B along with fatty liver, it is more likely to lead to liver failure. People with chronic liver disease are more likely to get infections, so the other two vaccinations are also important. get regular exercise, which can help you lose weight and reduce fat in the liver, talk with your doctor before using dietary supplements, such as vitamins, or any complementary or alternative medicines or medical practices. Some herbal remedies can damage your liver.

## First Aid

Accidents happen. Someone chokes on an ice cube or gets stung by a bee. It is important to know when to call 911 -- it is for life-threatening emergencies. While waiting for help to arrive, you may be able to save someone's life. Cardiopulmonary resuscitation (CPR) is for people whose hearts or breathing has stopped and the Heimlich maneuver is for people who are choking. You can also learn to handle common injuries and wounds. Cuts and scrapes, for example, should be rinsed with cool water. To stop bleeding, apply firm but gentle pressure, using gauze. If blood soaks through, add more gauze, keeping the first layer in place. Continue to apply pressure. It is important to have a first aid kit available. Keep one at home and one in your car. It should include a first-aid guide. Read the guide to learn how to use the items, so you are ready in case an emergency happens.

## Food Allergy

What is a food allergy? A food allergy is an abnormal immune system reaction to certain foods. Your immune system normally protects you from germs. But if you have a food allergy, your immune system mistakenly reacts to certain foods as if they were harmful. This reaction is usually mild. But in some cases, it can be serious or even life-threatening. A food intolerance is different than a food allergy. If you have a food intolerance, you also have symptoms when you eat that food. But these are typically just digestive symptoms such as bloating and gas. Also, an intolerance is not an immune system reaction. Most food allergies are caused by cow's milk, chicken eggs, crustacean shellfish, such as shrimp, crab, lobster, and crayfish, fish peanuts, sesame soy, tree nuts, such as almonds, walnuts, pecans wheat. People with a food allergy may be allergic to more than one type of food. Who is more likely to develop a food allergy? Both children and adults can have food allergies. Some children will outgrow their food allergies. And sometimes people can develop food allergies as adult. Certain factors can make you more likely to have a food allergy. They include having eczema, a disease that causes inflammation, redness, and irritation of the skin. Your immune system also plays a role in eczema, having asthma or other allergies, such as hay fever or your genes. Certain genes may influence the development of food allergies. And you are more likely to have food allergies if someone in your family has allergies, asthma, or eczema. What are the symptoms of food allergies? If you are allergic to a food you have eaten, you may have a variety of symptoms. These symptoms are not always the same for every person. And the symptoms that you get each time you eat the food may not always be the same. For example, your symptoms may sometimes depend on how much of the food you ate. Food allergy symptoms usually start within a few minutes to two hours after you eat that food. They may include hives flushed skin or rash, tingling or itchy sensation in the mouth face, tongue, or lip swelling, vomiting and/or diarrhea, abdominal (belly) cramps, coughing or wheezing, dizziness and/or lightheadedness, swelling of the throat and vocal cords, trouble breathing. In rare cases, a food allergy can cause a life-threatening reaction called anaphylaxis. It may start out with some milder symptoms, but then it becomes more serious. It can lead to narrowed airways in the lungs, severe trouble breathing because of swelling in the throat Severe lowering of blood pressure and shock ("anaphylactic shock"), loss of consciousness. This is a medical emergency. Call 911 if someone is having the symptoms of anaphylaxis. How are food allergies diagnosed? To find out if you have a food allergy, your health care provider will ask about your symptoms, family health history, and medical history, including other allergies. Likely do a physical exam. Do food allergy testing. This could involve skin testing, blood testing, a

food elimination diet, and/or an oral food challenge test. An oral food challenge test is the most accurate food allergy test. What are the treatments for food allergies? There is no cure for food allergies. The only way to prevent a reaction is to avoid eating the food that you are allergic to. There are medicines for people with food allergies. They include medicines to reduce food allergy symptoms, including antihistamines and corticosteroids, medicines to reduce allergic reactions, including severe reactions, epinephrine, a medicine to treat anaphylaxis. Your provider may give you a prescription for an epinephrine auto-injector. It is a device used to inject epinephrine when someone is having symptoms of anaphylaxis. If you have been prescribed one, it's important to learn how to use it and to carry it with you at all times. If you have a food allergy, it's a good idea to have a medical alert bracelet that says what your allergy is.

Friedreich Ataxia

Friedreich ataxia is an inherited disease that damages your nervous system. The damage affects your spinal cord and the nerves that control muscle movement in your arms and legs. Symptoms usually begin between the ages of 5 and 15. The main symptom is ataxia, which means trouble coordinating movements. Specific symptoms include difficulty walking, muscle weakness, speech problems, involuntary eye movements, scoliosis (curving of the spine to one side), heart palpitations, from the heart disease which can happen along with Friedreich ataxia. People with Friedreich ataxia usually need a wheelchair 15 to 20 years after symptoms first appear. In severe cases, people become incapacitated. There is no cure. You can treat symptoms with medicines, braces, surgery, and physical therapy. NIH: National Institute of Neurological Disorders and Stroke.

GERD

Your esophagus is the tube that carries food from your mouth to your stomach. Gastroesophageal reflux disease (GERD) happens when a muscle at the end of your esophagus does not close properly. This allows stomach contents to leak back, or reflux, into the esophagus and irritate it. You may feel a burning in the chest or throat called heartburn. Sometimes, you can taste stomach fluid in the back of the mouth. If you have these symptoms more than twice a week, you may have GERD. You can also have GERD without having heartburn. Your symptoms could include a dry cough, asthma symptoms, or trouble swallowing. Anyone, including infants and children, can have GERD.

If not treated, it can lead to more serious health problems. In some cases, you might need medicines or surgery. However, many people can improve their symptoms by avoiding alcohol and spicy, fatty or acidic foods that trigger, heart burn, eating smaller meals, not eating close to bedtime, losing weight if needed wearing loose-fitting clothes. NIH: National Institute of Diabetes and Digestive and Kidney Diseases.

## Growth Disorders

Does your child seem much shorter - or much taller - than other kids his or her age? It could be normal. Some children may be small for their age but still be developing normally. Some children are short or tall because their parents are. But some children have growth disorders. Growth disorders are problems that prevent children from developing normal height, weight, sexual maturity or other features. Very slow or very fast growth can sometimes signal a gland problem or disease. The pituitary gland makes growth hormone, which stimulates the growth of bone and other tissues. Children who have too little of it may be very short. Treatment with growth hormone can stimulate growth. People can also have too much growth hormone. Usually the cause is a pituitary gland tumor, which is not cancer. Too much growth hormone can cause gigantism in children, where their bones and their body grow too much. In adults, it can cause acromegaly, which makes the hands, feet and face larger than normal. Possible treatments include surgery to remove the tumor, medicines, and radiation therapy.

## Hair Loss

You lose up to 100 hairs from your scalp every day. That's normal, and in most people, those hairs grow back. But many men -- and some women -- lose hair as they grow older. You can also lose your hair if you have certain diseases, such as thyroid problems, diabetes, or lupus. If you take certain medicines or have chemotherapy for cancer, you may also lose your hair. Other causes are stress, a low protein diet, a family history, or poor nutrition. Treatment for hair loss depends on the cause. In some cases, treating the underlying cause will correct the problem. Other treatments include medicines and hair restoration.

## Hay Fever

Each spring, summer, and fall, trees, weeds, and grasses release tiny pollen grains into the air. Some of the pollen ends up in your nose and throat. This can trigger a type of allergy called hay fever. Symptoms can include sneezing, often with a runny or clogged nose, coughing and postnasal drip, itching eyes, nose and throat, red and watery eyes, dark circles under the eyes. Your health care provider may diagnose hay fever based on a physical exam and your symptoms. Sometimes skin or blood tests are used. Taking medicines and using nasal sprays can relieve symptoms. You can also rinse out your nose, but be sure to use distilled or sterilized water with saline. Allergy shots can help make you less sensitive to pollen and provide long-term relief.

## Health Checkup

There are many new responsibilities when you have a baby. One of them is to make sure that your baby gets regular checkups, which are also called well-baby exams. These exams are important in making sure that your baby is growing and developing properly. If there are any problems, they can be caught early, when they may be easier to treat. Your baby's health care provider will let you know how often your baby should get a checkup. During these checkups, the provider will give your baby a complete physical exam, which includes checking your baby's height and weight, looking at their head, ears, nose, and mouth, listening to their heart and lungs, testing their hearing and vision (for some visits), checking their reflexes. The provider will ask you about your baby's development.  For example, they may ask when the baby started smiling and rolling over. During certain visits, the provider will do developmental and behavioral screening tests. The provider will use all of this information from the visit to check if your baby is meeting important developmental milestones. Your baby will also get any needed vaccines and screenings during the exam. And you can ask the provider any questions you might have about how to care for your baby. You can prepare for your baby's checkups by making a list of issues and questions you want to discuss with the provider, being prepared to answer questions about your baby's behavior and eating and sleeping habits, being ready to take notes at the visit. In addition to these checkups, you can contact the provider any time if your baby seems sick or if you are worried about their development.

## Health Insurance

Health insurance helps protect you from high medical care costs. It is a contract between you and your insurance company. You buy a plan or policy, and the company agrees to pay part of your expenses when you need medical care. Many people in the United States get a health insurance policy through their employers. In most cases, the employer helps pay for that insurance. Insurance through employers is often with a managed care plan. These plans contract with health care providers and medical facilities to provide care for members at reduced costs. You can also purchase health insurance on your own. People who meet certain requirements can qualify for government health insurance, such as Medicare and Medicaid. The Affordable Care Act expands health insurance coverage for many people in the U.S. .

## Health Topics

Health care workers are exposed to many job hazards. These can include infections, needle injuries, Back injuries, allergy-causing substances, violence, stress. Follow good job safety and injury prevention practices. They can reduce your risk of health problems. Use protective equipment, follow infection control guidelines, learn the right way to lift heavy objects, and find ways to manage stress. National Institute for Occupational Safety and Health.

## Heartburn

Heartburn is a painful burning feeling in your chest or throat. It happens when stomach acid backs up into your esophagus, the tube that carries food from your mouth to your stomach. If you have heartburn more than twice a week, you may have GERD. But you can have GERD without having heartburn. Pregnancy, certain foods, alcohol, and some medications can bring on heartburn. Treating heartburn is important because over time reflux can damage the esophagus. Over-the-counter medicines may help. If the heartburn continues, you may need prescription medicines or surgery. If you have other symptoms such as crushing chest pain, it could be a heart attack. Get help immediately.

## Heart Valve Diseases

What are heart valve diseases? Heart valve disease happens when one or more of your heart valves don't work well. Your heart has four valves: the tricuspid, pulmonary, mitral,

and aortic valves. The valves have flaps that open and close. The flaps make sure that blood flows in the right direction through your heart and to the rest of your body. When your heart beats, the flaps open to let blood through. Between heartbeats they close to stop the blood from flowing backwards. If one or more of your heart valves doesn't open or close correctly, it can affect your blood flow and strain your heart. Fortunately, treatment helps most valve diseases. What are the types of heart valve diseases? Heart valves can have three basic kinds of problems such as regurgitation, or backflow, happens when the flaps of a valve don't close tightly. This allows the blood to leak backwards. A common cause of regurgitation is prolapse, where the flaps of the valve flop or bulge back. Prolapse most often affects the mitral valve. Stenosis happens when the flaps of a valve become thick, stiff, or stuck together. This prevents the heart valve from opening all the way. Not enough blood can pass through the valve. Aortic valve stenosis is a common type of stenosis. It affects the valve that controls blood flow into the large artery that carries blood out of the heart to the body. Atresia happens when a heart valve did not form properly and does not have an opening for blood to pass through. Sometimes a valve can have both regurgitation and stenosis. What causes heart valve diseases? Some people are born with heart valve disease. This is called congenital heart valve disease. It can happen alone or along with other congenital heart defects. Heart valve disease can also develop over time as you get older or have certain conditions that affect the heart. Who is more likely to develop heart valve diseases? Your chance of having heart valve disease is higher if you are older. With age, the heart valves can become thick and stiff. You have or have had other conditions that affect your heart and blood vessels. These include:

Rheumatic fever. An untreated strep throat can become rheumatic fever, which can harm the heart valves. The damage may not show up for years. Today, most people take antibiotics to cure strep throat before it can cause heart valve damage. Endocarditis. This is a rare infection in the lining of the heart and heart valves. It is usually caused by bacteria in the bloodstream. A heart attack, heart failure, coronary artery disease, especially when it affects the aorta (the large artery that carries blood from the heart to the body), high blood pressure, high blood cholesterol, diabetes, obesity and overweight, Lack of physical activity.

A family history of early heart disease includes a father or brother who had heart disease younger than 55 or a mother or sister who had heart disease younger than 65. You were born with an aortic valve that wasn't formed right. Sometimes this will cause problems right away. Other times, the valve may work well enough for years before causing

problems. What are the symptoms of heart valve diseases? Many people live their whole lives with a heart valve that doesn't work perfectly and never have any problems. But heart valve disease may get worse slowly over time. You may develop signs and symptoms, such as shortness of breath (feeling like you can't get enough air), fatigue, swelling in your feet, ankles, abdomen (belly), or the veins in your neck, chest pain when you're physically active, arrhythmia, a problem with the rate or rhythm of your heartbeat, dizziness or fainting. If you don't get treatment for heart valve disease, the symptoms and strain on your heart may keep getting worse. What other problems can heart valve diseases cause? When the valves don't work well, your heart has to pump harder to get enough blood out to the body. Without treatment, this extra workload on your heart can lead to heart failure, stroke blood clots, sudden cardiac arrest or death. How is heart valve disease diagnosed? Your health care provider may listen to your heart with a stethoscope and hear that your heart makes abnormal sounds, such as a click or a heart murmur. These sounds may mean a valve isn't working normally. The provider will usually refer you to a cardiologist, a doctor who specializes in heart diseases. The doctor will also listen to your heart and will do a physical exam. You will also likely need to have one or more heart tests. What are the treatments for heart valve diseases? Most heart valve problems can be treated successfully. Treatment may include medicines to control your symptoms and keep your heart pumping well, heart-healthy lifestyle changes to treat other related heart conditions, surgery to repair or replace a valve. It's possible that you may need surgery, even if you don't have symptoms. Fixing the valve can help prevent future heart problems. There are many ways to do heart valve surgery. You and your doctor can decide what's best for you, based on your valve problem and general health. Heart valve repair surgery has fewer risks than heart valve replacement. So, when repair is possible, it's preferred over valve replacement. In some cases, valve replacement is necessary. There are 2 types of replacement valves such as biologic valves made from pig, cow, or human tissue. These valves tend to wear out after 10 to 15 years, but some may last longer. Mechanical (human-made) valves usually don't wear out. But with a mechanical valve, you usually have to take blood thinners for the rest of your life to prevent blood clots. And your risk of endocarditis (a heart infection) is higher than with a biologic valve. NIH: National Heart, Lung, and Blood Institute.

## Heel Injuries and Disorders

Heel problems are common and can be painful. Often, they result from too much stress

on your heel bone and the tissues that surround it. That stress can come from injuries or bruises that you get walking, running or jumping Wearing shoes that don't fit or aren't made well being overweight. These can lead to tendinitis, bursitis, and fasciitis, which are all types of inflammation of the tissues that surround your heel. Over time the stress can cause bone spurs and deformities. Certain diseases, such as rheumatoid arthritis and gout, can also lead to heel problems. Treatments for heel problems might include rest, medicines, exercises, taping, and special shoes. Surgery is rarely needed.

Hip Replacement

Hip replacement is surgery for people with severe hip damage. The most common cause of damage is osteoarthritis. Osteoarthritis causes pain, swelling, and reduced motion in your joints. It can interfere with your daily activities. If other treatments such as physical therapy, pain medicines, and exercise haven't helped, hip replacement surgery might be an option for you. During a hip replacement operation, the surgeon removes damaged cartilage and bone from your hip joint and replaces them with new, man-made parts.A hip replacement can relieve pain, help your hip joint work better, improve walking and other movements. The most common problem after surgery is hip dislocation. Because a man-made hip is smaller than the original joint, the ball can come out of its socket. The surgery can also cause blood clots and infections. With a hip replacement, you might need to avoid certain activities, such as jogging and high-impact sports. NIH: National Institute of Arthritis and Musculoskeletal and Skin Diseases.

Infertility

Infertility means not being able to get pregnant after at least one year of trying (or 6 months if the woman is over age 35). If a woman keeps having miscarriages, it is also called infertility.  Female infertility can result from age, physical problems, hormone problems, and lifestyle or environmental factors. Most cases of infertility in women result from problems with producing eggs. In primary ovarian insufficiency, the ovaries stop functioning before natural menopause.  In polycystic ovary syndrome (PCOS), the ovaries may not release an egg regularly or they may not release a healthy egg. About a third of the time, infertility is because of a problem with the woman. One third of the time, it is a problem with the man. Sometimes no cause can be found. If you think you might be infertile, see your doctor. There are tests that may tell if you have fertility problems.

When it is possible to find the cause, treatments may include medicines, surgery, or assisted reproductive technologies. Happily, many couples treated for infertility are able to have babies. Dept. of Health and Human Services Office on Women's Health.

Intimate Partner Violence

What is intimate partner violence (IPV)? Intimate partner violence (IPV) is abuse that happens in a romantic relationship. The intimate partner could be a current or former spouse or dating partner. IPV is also known as domestic violence. IPV can happen one time, or it may be ongoing. It may include different types of abuse, such as physical violence, which is when a person hurts or tries to hurt a partner by hitting, kicking, or using another type of physical force, sexual violence which involves forcing or attempting to force a partner to take part in sexual activity when the partner does not or cannot consent. The sexual activity could include things like sex acts, sexual touching, or non-physical sexual events (e.g., sexting), and emotional abuse, which includes threats, name-calling, put-downs, and humiliation. It can also involve controlling behavior, such as telling a partner how to act or dress and not letting them see family or friends. Economic abuse, also called financial abuse, involves controlling access to money. Stalking, which is repeated, unwanted contact that causes fear or concern for the safety of the partner. This can include watching or following the partner. The stalker may send repeated, unwanted phone calls or texts. Who is affected by intimate partner violence (IPV)? It is hard to know exactly how common IPV is because it is often not reported. But we do know that IPV can happen to anyone. It affects people with all levels of income and education. What are the signs that someone is experiencing intimate partner violence (IPV)? If you think that a loved one might be experiencing IPV, watch for these signs, does your friend or loved one have unexplained cuts or bruises? Avoid friends, family, and favorite activities? Make excuses for their partner's behavior? Look uncomfortable or fearful around their partner? Does your friend or loved one's partner, yell at or make fun of them? Try to control them by making all the decisions? Check up on them at work or school? Force them to do sexual things they don't want to do? Threaten to hurt themself if the partner wants to break up? What can I do if I am experiencing intimate partner violence (IPV)? Your safety is the most important concern. If you are in immediate danger, call 911.If you are not in immediate danger, you can get medical care if you have been injured or sexually assaulted. Call a helpline for free, anonymous help. You can contact the National Domestic Violence Hotline at 800-799-SAFE (7233) or 800-787-

3224 (TTY). You can also chat with them through their website or through text by texting START to 88788.Find out where to get help in your community. Contact local organizations that can help you. Make a safety plan to leave. Intimate partner violence usually does not get better. Think about a safe place for you to go and all the things you will need when you leave. Save the evidence. Keep evidence of abuse, such as pictures of your injuries or threatening emails or texts. Make sure that it is in a safe place the abuser cannot access. Talk to someone you trust, such as a family member, a friend, a co-worker, or a spiritual leader. Consider getting a restraining order to protect yourself.

How can I help someone who is experiencing intimate partner violence (IPV)? Let your loved one know that being treated this way isn't healthy and that they are not to blame. You should call 911 if there is immediate danger. Watch for the signs of abuse. Learn about the signs and keep track of the ones that you see. Find out about local resources. Get the addresses and phone numbers of some local resources in your community. Then, you'll be able to share the information if the person is ready for it. Set up a time to talk. Make sure you can have your conversation in a safe, private place. Your loved one's partner may have access to their cell phone or computer, so be careful about sharing information over text or email. Be specific about why you are worried. Describe the behaviors that concern you. Be as specific as possible when explaining why you are worried. Plan for safety. If your loved one is ready to leave an abusive partner, help them make a plan for getting out of the relationship as safely as possible. An intimate partner violence counselor can help with making a safety plan. Be patient and do not judge. You should talk about your concerns with your loved one, but you need to understand that they may not be ready to talk about it. Let them know that you're available to talk at any time, and that you will listen without judging them.

## Joint Disorders

What are joints? Your joints are places where two or more bones come together. Your shoulders, elbows, hips, knees, and knuckles are all joints. Your spine has joints, too. But joints are more than bones. They include the soft tissues around them, such as cartilage, tendons and ligaments. Cartilage is the hard slippery flexible tissue that covers the ends of your bones at a joint. Tendons are tough, flexible bands that connect your muscles to your bones so you can move your joints. Ligaments connect the bones of the joint to each other to keep them stable when you move. What are joint disorders? Joint disorders are diseases or injuries that affect your joints. Injuries can happen because of

overuse of a joint. Or you could have a sudden injury, such as an accident or a sports injury. What diseases can affect the joints? Many diseases can affect the joints. They often cause joint pain and make your joints stiff, red, or swollen. Most of them are chronic. That means they last a long time. Some may never go away completely. Some of the diseases that affect the joints include arthritis. Arthritis may cause joint pain and swelling. There are many types of this disease. Osteoarthritis is the most common type. Over time, arthritis can cause severe joint damage. It can affect people of all ages. A joint injury when you're young may cause osteoarthritis later in life. Lupus. This autoimmune disease affects many parts of the body and can cause joint and muscle pain. Some types of lupus often cause arthritis, Sjögren's Syndrome. This autoimmune disease affects glands that make moisture in many parts of the body. The main symptoms are dry eyes and mouth, but it often causes joint pain, too. Treatments are different depending on the disease. But most treatments include medicines and therapies to relieve pain and other symptoms. What types of joint disorders happen from sudden injuries? Joint disorders from sudden injuries include sprains and strains. Sprains are stretched or torn ligaments. Acute strains are stretched or torn muscles or tendons that happen from a sudden injury or movement, such as lifting a heavy object. Dislocated joints. A joint is dislocated when the bones are pushed or pulled out of position. A joint dislocation is a medical emergency. Treatment depends on the type of injury. You can treat many sports injuries at home. But you should call your health care provider if you have a lot of joint pain, swelling or numbness can't put weight on the joint have pain from an old injury with more swelling, an unstable joint, or a joint that isn't normal in another way. What types of joint disorders happen from overuse? Overuse injuries usually damage the soft tissues of the joint. They can happen when you work a joint too hard by doing the same movements over and over. For example, you could get an overuse injury from playing a musical instrument, playing sports, or doing certain jobs, such as carpentry or painting, Joint overuse injuries include bursitis. The bursa is a small fluid-filled sac. It works as a pad between the bones of a joint and the moving parts around it, such as muscles, tendons and skin. With bursitis, the bursa becomes irritated and swollen with extra fluid. Overuse is the most common cause, but injuries, infections and other conditions, such as arthritis, can cause bursitis or tendinitis. This condition happens when you overuse a tendon. It swells and makes the joint painful to move. Chronic strain. A strain becomes chronic when your muscles or tendons stretch or tear slowly over time from repeating the same movements. The treatments for bursitis, tendinitis, and chronic strain are often the same. They usually include rest, keeping the injured joint higher than your heart, and

taking medicine to reduce swelling. Your provider may recommend gentle exercise and other treatment. In some cases, your provider may suggest an injection (a shot) of medicine into the joint. If these do not help, you may need surgery. How can I keep my joints healthy? Getting enough physical activity is one of the most important things you can do to prevent or slow joint disorders. Activity strengthens the muscles around your joints and helps them work better. When you play sports, wear the right equipment to protect your joints, such as knee pads. If you already have joint problems, ask your provider what type of activities are best for you. NIH: National Institute of Arthritis and Musculoskeletal and Skin Diseases.

## Knee Injuries and Disorders

Your knee joint is made up of bone, cartilage, ligaments and fluid. Muscles and tendons help the knee joint move. When any of these structures is hurt or diseased, you have knee problems. Knee problems can cause pain and difficulty walking. Knee problems are very common, and they occur in people of all ages. Knee problems can interfere with many things, from participation in sports to simply getting up from a chair and walking. This can have a big impact on your life. The most common disease affecting the knee is osteoarthritis. The cartilage in the knee gradually wears away, causing pain and swelling, Injuries to ligaments and tendons also cause knee problems. A common injury is to the anterior cruciate ligament (ACL). You usually injure your ACL by a sudden twisting motion. ACL and other knee injuries are common sports injuries. Treatment of knee problems depends on the cause. In some cases your doctor may recommend knee replacement. NIH: National Institute of Arthritis and Musculoskeletal and Skin Diseases.

## Knee Replacement

What is knee replacement surgery? Knee replacement surgery is a surgery to replace parts of your knee joint with new, artificial parts. You may need a knee replacement if you have knee damage that causes severe pain and difficulty doing daily activities, such as walking and climbing stairs. It is usually done when other treatments for knee pain haven't helped enough. The goal of a knee replacement is to relieve pain and help you move better. People of all ages may have knee replacement surgery. But it is more common in older people. The decision whether to have surgery is based on your overall health and how much your knee bothers you. What conditions does knee replacement

surgery treat? Knee replacement surgery treats conditions that cause the cartilage of the knee joint to wear away. These include knee osteoarthritis. This is the most common reason for knee replacement surgery. It usually develops over time after an injury or with aging. Knee damage from other types of arthritis. Problems from knee joints that aren't formed correctly. What happens during knee replacement surgery? During the surgery, a surgeon removes damaged cartilage and some bone from the surfaces of your knee joint. Cartilage is tissue that covers your bones where they meet. Healthy cartilage is smooth and helps the bones glide over each other when you move. When cartilage becomes rough and wears away, the bones rub against each other, causing pain. After removing the damaged knee cartilage and bone, the surgeon attaches the artificial parts to your bones. The artificial parts are made of metal and plastic. They will give your knee new, smooth surfaces. Knee replacement surgery may replace all the damaged parts of your knee (total knee replacement) or just part of your knee (partial knee replacement). In a total knee replacement, the surgeon replaces 3 surfaces, the end of the shinbone, the end of the thigh, bone, and the back of the kneecap. What happens after knee replacement surgery? Some people go home the same day they have surgery. Other people will stay in the hospital a few days. To help prevent blood clots, you'll most likely take blood thinners and wear special socks or coverings on your legs for a short time after surgery. The success of your surgery depends a lot on what you do at home to help yourself recover. A physical therapist will teach you exercises to make your knee stronger and help it bend. It is important to do these exercises regularly. You may need to use a cane or walker for several weeks after the surgery. It will probably also be several weeks before you can drive. Your doctor will tell you when you can start driving again. Most people who follow their recovery instructions can get back to nearly all of their normal daily activities within 3 to 6 weeks after surgery. What is life like after a knee replacement? After recovering from surgery, most people can move better with less pain than before surgery. But having an artificial knee is not the same as having a normal, healthy knee. You need to protect your new knee by staying at a healthy weight. getting regular physical activity. Not doing any high-impact activities, such as jogging, running, and jumping. Instead, you can try low-impact activities that are good for your knee, such as walking, biking, and swimming. What are the risks of knee replacement surgery? The chance of having problems after knee replacement surgery is low. But there are risks after any surgery. Possible problems after knee replacement surgery include infection blood clots, heart attack, stroke, nerve damage, scarring that limits how far you can bend your knee, your age, general health, and how active you are can all affect your

risk of having a problem after knee replacement surgery. How long does a knee replacement last? A knee replacement doesn't last forever. After 15 to 20 years, the artificial knee parts may become loose or worn. If that happens, you may need another surgery on the same knee. If you're thinking about having knee replacement surgery, talk to your doctor about the risks and benefits. Together you can decide if a knee replacement is right for you.

## Latex Allergy

Latex is a milky fluid that comes from the tropical rubber tree. Hundreds of everyday products contain latex. Repeated exposure to a protein in natural latex can make you more likely to develop a latex allergy. If your immune system detects the protein, a reaction can start in minutes. You could get a rash or asthma. In rare cases you could have a severe reaction called anaphylaxis. Your doctor may use a physical exam and skin and blood tests to diagnose it. There are medicines to treat a reaction, but it is best to try to avoid latex. Common latex products include gloves, condoms, balloons, rubber bands, shoe, soles, pacifiers. You can find latex-free versions of these products.

## Leukodystrophies

What are leukodystrophies? Leukodystrophies are a group of rare genetic disorders that affect the central nervous system (CNS). The CNS is made up of your brain and spinal cord. Leukodystrophies damage the white matter of your CNS. The white matter includes nerve fibers, also called axons, which connect your nerve cells myelin, a layer of proteins and fatty materials that covers and protects the nerve fibers. It also helps speed up signals between the nerve cells. When the white matter is damaged, it can slow down or block the signals between nerve cells. This can cause many different symptoms, including trouble with movement, vision, hearing, and thinking. There are over 50 types of leukodystrophies. Some types are present at birth, while others may not cause symptoms until a child becomes a toddler. A few types mainly affect adults. Most types get worse over time. What causes leukodystrophies? Leukodystrophies are caused by genetic changes. These changes are usually inherited, meaning that they are passed from parent to child. What are the symptoms of leukodystrophies? The symptoms of leukodystrophies vary depending on the type and may include a gradual loss of muscle tone, balance, and mobility, such as difficulty walking, as well as impaired speech,

difficulty eating, vision and hearing problems, and behavior. There can also be other symptoms, such as learning disabilities, bladder issues, breathing problems, developmental disabilities, muscle control disorders, seizures. How are leukodystrophies diagnosed? Leukodystrophies can be hard to diagnose because there are so many different types which can have different symptoms. Your health care provider may use many tools to make a diagnosis physical and neurological exams, a medical history including asking about family history, imaging tests, such as an MRI or CT scan, genetic testing to look for genetic changes that could cause leukodystrophies lab tests. What are the treatments for leukodystrophies? There is no cure for leukodystrophies. Treatment focuses on relieving symptoms and providing support. It may include medicines to manage muscle tone, seizures, and spasticity (muscle stiffness), physical, occupational, and speech therapies to improve mobility, function, and cognitive problems, nutritional therapy for eating and swallowing problems, educational and recreational programs, stem cell or bone marrow transplantation can be helpful for a few types of leukodystrophy. One type of leukodystrophy, CTX, is treatable if it is diagnosed early. It is treated with chenodeoxycholic acid (CDCA) replacement therapy. NIH: National Institute of Neurological Disorders and Stroke.

Limb Loss

People can lose all or part of an arm or leg for many reasons. Common ones include problems with the flow of blood through your body. These may be the result of atherosclerosis or diabetes. Severe cases may result in amputation (the surgical removal of a limb). Injuries, including from traffic accidents and military combat, cancer, birth defects. Some amputees have phantom pain, which is the feeling of pain in the missing limb. Other physical problems include surgical complications and skin problems if you wear an artificial limb. Many amputees use an artificial limb. Learning how to use it takes time. Physical therapy can help you adapt recovery from the loss of a limb can be hard. Sadness, anger, and frustration are common. If you are having a tough time, talk to your health care provider. Treatment with medicine or counseling can help.

Liver Diseases

What is fatty liver disease? Your liver is the largest organ inside your body. It helps your body digest food, store energy, and remove poisons. Fatty liver disease is a condition in

which fat builds up in your liver. There are two main types nonalcoholic fatty liver disease (NAFLD), Alcoholic fatty liver disease, also called alcoholic steatohepatitis. What is nonalcoholic fatty liver disease (NAFLD)? NAFLD is a type of fatty liver disease that is not related to heavy alcohol use. There are two kinds simple fatty liver, in which you have fat in your liver but little or no inflammation or liver cell damage. Simple fatty liver typically does not get bad enough to cause liver damage or complications. Nonalcoholic steatohepatitis (NASH), in which you have inflammation and liver cell damage, as well as fat in your liver. Inflammation and liver cell damage can cause fibrosis, or scarring, of the liver. NASH may lead to cirrhosis or liver cancer. What is alcoholic fatty liver disease? Alcoholic fatty liver disease is due to heavy alcohol use. Your liver breaks down most of the alcohol you drink, so it can be removed from your body. But the process of breaking it down can generate harmful substances. These substances can damage liver cells, promote inflammation, and weaken your body's natural defenses. The more alcohol that you drink, the more you damage your liver. Alcoholic fatty liver disease is the earliest stage of alcohol-related liver disease. The next stages are alcoholic hepatitis and cirrhosis. Who is at risk for fatty liver disease? The cause of nonalcoholic fatty liver disease (NAFLD) is unknown. Researchers know that it is more common among people with type 2 diabetes, prediabetes, or obesity, as well as those who are middle-aged or older (though children can also be affected). It is most frequent in Hispanic individuals, followed by non-Hispanic Whites. It is less common in African Americans. Having high levels of fats in the blood, such as cholesterol and triglycerides, as well as high blood pressure, can increase the risk of developing Non-Alcoholic Fatty Liver Disease (NAFLD). Certain drugs, such as corticosteroids and some cancer treatments, may also contribute to this condition. Additionally, metabolic disorders, including metabolic syndrome, rapid weight loss, and specific infections like hepatitis C, are recognized as risk factors. Exposure to certain toxins can further raise the likelihood of developing NAFLD. Globally, this disease affects approximately 25% of the population.

As the rates of obesity, type 2 diabetes, and high cholesterol are rising in the United States, so is the rate of NAFLD. NAFLD is the most common chronic liver disorder in the United States. Alcoholic fatty liver disease only happens in people who are heavy drinkers, especially those who have been drinking for a long period of time. The risk is higher for heavy drinkers who are women, have obesity, or have certain genetic mutations. What are the symptoms of fatty liver disease? Both NAFLD and alcoholic fatty liver disease are usually silent diseases with few or no symptoms. If you do have symptoms, you may feel tired or have discomfort in the upper right side of your

abdomen. How is fatty liver disease diagnosed? Because there are often no symptoms, it is not easy to find fatty liver disease. Your doctor may suspect that you have it if you get abnormal results on liver tests that you had for other reasons. To make a diagnosis, your doctor will use your medical history, a physical exam, and various tests, including blood and imaging tests, and sometimes a biopsy. As part of the medical history, your doctor will ask about your alcohol use, to find out whether fat in your liver is a sign of alcoholic fatty liver disease or nonalcoholic fatty liver (NAFLD). He or she will also ask which medicines you take, to try to determine whether a medicine is causing your NAFLD. During the physical exam, your doctor will examine your body and check your weight and height. Your doctor will look for signs of fatty liver disease, such as an enlarged liver signs of cirrhosis, such as jaundice, a condition that causes your skin and whites of your eyes to turn yellow. You will likely have blood tests, including liver function tests and blood count tests. In some cases you may also have imaging tests, like those that check for fat in the liver and the stiffness of your liver. Liver stiffness can mean fibrosis, which is scarring of the liver. In some cases you may also need a liver biopsy to confirm the diagnosis, and to check how bad the liver damage is. What are the treatments for fatty liver disease? Doctors recommend weight loss for nonalcoholic fatty liver. Weight loss can reduce fat in the liver, inflammation, and fibrosis. If your doctor thinks that a certain medicine is the cause of your NAFLD, you should stop taking that medicine. But check with your doctor before stopping the medicine. You may need to get off the medicine gradually, and you might need to switch to another medicine instead. There are no medicines that have been approved to treat NAFLD. Studies are investigating whether a certain diabetes medicine or Vitamin E can help, but more studies are needed. The most important part of treating alcohol-related fatty liver disease is to stop drinking alcohol. If you need help doing that, you may want to see a therapist or participate in an alcohol recovery program. There are also medicines that can help, either by reducing your cravings or making you feel sick if you drink alcohol. Both alcoholic fatty liver disease and one type of nonalcoholic fatty liver disease (nonalcoholic steatohepatitis) can lead to cirrhosis. Doctors can treat the health problems caused by cirrhosis with medicines, operations, and other medical procedures. If the cirrhosis leads to liver failure, you may need a liver transplant. What are some lifestyle changes that can help with fatty liver disease? If you have any of the types of fatty liver disease, there are some lifestyle changes that can help eat a healthy diet, limiting salt and sugar, plus eating lots of fruits, vegetables, and whole grains get vaccinations for hepatitis A and B, the flu and pneumococcal disease. If you get hepatitis A or B along with fatty liver, it is more likely

to lead to liver failure. People with chronic liver disease are more likely to get infections, so the other two vaccinations are also important, get regular exercise, which can help you lose weight and reduce fat in the liver, talk with your doctor before using dietary supplements, such as vitamins, or any complementary or alternative medicines or medical practices. Some herbal remedies can damage your liver.

## Macular Degeneration

Macular degeneration, or age-related macular degeneration (AMD), is a leading cause of vision loss in Americans 60 and older. It is a disease that destroys your sharp, central vision. You need central vision to see objects clearly and to do tasks such as reading and driving. AMD affects the macula, the part of the eye that allows you to see fine detail. It does not hurt, but it causes cells in the macula to die. There are two types: wet and dry. Wet AMD happens when abnormal blood vessels grow under the macula. These new blood vessels often leak blood and fluid. Wet AMD damages the macula quickly. Blurred vision is a common early symptom. Dry AMD happens when the light-sensitive cells in the macula slowly break down. You gradually lose your central vision. A common early symptom is that straight lines appear crooked. Regular comprehensive eye exams can detect macular degeneration before the disease causes vision loss. Treatment can slow vision loss. It does not restore vision. NIH: National Eye Institute.

## Medicines

What is high blood pressure? High blood pressure, also called hypertension, is when blood puts too much pressure against the walls of your arteries. Almost half of American adults have high blood pressure, usually with no symptoms. But it can cause serious problems such as stroke, heart failure, heart attack, and kidney disease. What lifestyle changes can help lower high blood pressure? Healthy lifestyle changes can help reduce high blood pressure, losing weight, being physically active, managing stress, reducing sodium in your diet, avoiding alcohol, tobacco, and illegal drugs, getting enough sleep. What if lifestyle changes alone cannot lower blood pressure? Sometimes lifestyle changes alone cannot control or lower your high blood pressure. In that case, your health care provider may prescribe blood pressure medicines. How do blood pressure medicines work? The most commonly used blood pressure medicines work in different ways to lower blood pressure. Angiotensin-converting enzyme (ACE) inhibitors and angiotensin II

receptor blockers (ARBs) keep your blood vessels from narrowing as much and allows blood to move through them with less pressure. Beta blockers help your heart beat slower and with less force. This means that your heart pumps less blood through your blood vessels. Beta blockers are typically used only as a backup option or if you also have certain other conditions. Calcium channel blockers prevent calcium from entering the muscle cells of your heart and blood vessels. This allows the blood vessels to relax. Diuretics remove extra water and sodium (salt) from your body. This lowers the amount of fluid in your blood. Diuretics are often used with other high blood pressure medicines, sometimes in one combined pill. Often, two or more medicines work better than one. If these medicines do not lower your blood pressure enough, your provider may suggest that you take another type of blood pressure medicine. While taking the medicines, it is still important to keep up with your healthy lifestyle changes. Doing both helps keep blood pressure lower than lifestyle changes or medicines alone. NIH: National Heart, Lung, and Blood Institute.

Memory

Every day, you have different experiences and you learn new things. Your brain cannot store all of that information, so it has to decide what is worth remembering. Memory is the process of storing and then remembering this information. There are different types of memory. Short-term memory stores information for a few seconds or minutes. Long-term memory stores it for a longer period of time. Memory doesn't always work perfectly. As you grow older, it may take longer to remember things. It's normal to forget things once in a while. We've all forgotten a name, where we put our keys, or if we locked the front door. If you are an older adult who forgets things more often than others your age, you may have mild cognitive impairment. Forgetting how to use your phone or find your way home may be signs of a more serious problem, such as alzheimer's disease, other types of dementia, stroke, depression head injuries, blood clots or tumors in the brain, kidney, liver, or thyroid problems, reactions to certain medicines. If you're worried about your forgetfulness, see your health care provider. NIH: National Institute on Aging.

Meningitis

Meningitis is inflammation of the thin tissue that surrounds the brain and spinal cord,

called the meninges. There are several types of meningitis. The most common is viral meningitis. You get it when a virus enters the body through the nose or mouth and travels to the brain. Bacterial meningitis is rare but can be deadly. It usually starts with bacteria that cause a cold-like infection. It can cause stroke, hearing loss, and brain damage. It can also harm other organs. Pneumococcal infections and meningococcal infections are the most common causes of bacterial meningitis. Anyone can get meningitis, but it is more common in people with weak immune systems. Meningitis can get serious very quickly. You should get medical care right away if you have a sudden high fever A severe headache A stiff neck Nausea or vomiting. Early treatment can help prevent serious problems, including death. Tests to diagnose meningitis include blood tests, imaging tests, and a spinal tap to test cerebrospinal fluid. Antibiotics can treat bacterial meningitis. Antiviral medicines may help some types of viral meningitis. Other medicines can help treat symptoms. There are vaccines to prevent some of the bacterial infections that cause meningitis. NIH: National Institute of Neurological Disorders and Stroke.

Menstruation

Menstruation, or period, is normal vaginal bleeding that occurs as part of a woman's monthly cycle. Every month, your body prepares for pregnancy. If no pregnancy occurs, the uterus, or womb, sheds its lining. The menstrual blood is partly blood and partly tissue from inside the uterus. It passes out of the body through the vagina. Periods usually start between age 11 and 14 and continue until menopause at about age 51. They usually last from three to five days. Besides bleeding from the vagina, you may have abdominal or pelvic cramping pain, lower back pain, bloating and sore breasts, food cravings, mood swings and irritability, headache and fatigue, premenstrual syndrome, or PMS, is a group of symptoms that start before the period. It can include emotional and physical symptoms. Consult your health care provider if you have big changes in your cycle. They may be signs of other problems that should be treated. NIH: National Institute of Child Health and Human Development.

Methamphetamine

Methamphetamine - meth for short - is a very addictive stimulant drug. It is a powder that can be made into a pill or a shiny rock (called a crystal). The powder can be eaten

or snorted up the nose. It can also be mixed with liquid and injected into your body with a needle. Crystal meth is smoked in a small glass pipe. Meth at first causes a rush of good feelings, but then users feel edgy, overly excited, angry, or afraid. Meth use can quickly lead to addiction. It causes medical problems including making your body temperature so high that you pass out, severe itching, "Meth mouth" - broken teeth and dry mouth, thinking and emotional problems. NIH: National Institute on Drug Abuse.

## Motion Sickness

Motion sickness is a common problem in people traveling by car, train, airplanes, and especially boats. Anyone can get it, but it is more common in children, pregnant women, and people taking certain medicines. Motion sickness can start suddenly, with a queasy feeling and cold sweats. It can then lead to dizziness and nausea and vomiting. Your brain senses movement by getting signals from your inner ears, eyes, muscles, and joints. When it gets signals that do not match, you can get motion sickness. For example, if you are reading on your phone while riding a bus, your eyes are focused on something that is not moving, but your inner ear senses motion. Where you sit can make a difference. The front seat of a car, forward cars of a train, upper deck on a boat or wing seats in a plane may give you a smoother ride. Looking out into the distance - instead of trying to read or look at something in the vehicle - can also help. Centers for Disease Control and Prevention.

## Motor Vehicle Safety

Every year thousands of people in the U.S. die from motor vehicle crashes. Trying to prevent these crashes is one part of motor vehicle safety. Here are some things you can do to be safer on the road: Make sure your vehicle is safe and in working order Use car seats for children Wear your seat belt Don't speed or drive aggressively Don't drive impaired safety also involves being aware of others. Share the road with bicycles and motorcycles, and watch for pedestrians.

## Movement Disorders

When you look at an object, you're using several muscles to move both eyes to focus on it. If you have a problem with the muscles, the eyes don't work properly. There are many

kinds of eye movement disorders. Two common ones are strabismus - a disorder in which the two eyes don't line up in the same direction. This results in "crossed eyes" or "walleye, nystagmus - fast, uncontrollable movements of the eyes, sometimes called "dancing eyes, some eye movement disorders are present at birth. Others develop over time and may be associated with other problems, such as injuries. Treatments include glasses, patches, eye muscle exercises, and surgery. There is no cure for some kinds of eye movement disorders, such as most kinds of nystagmus.

## Neural Tube Defects

Neural tube defects are birth defects of the brain, spine, or spinal cord. They happen in the first month of pregnancy, often before a woman even knows that she is pregnant. The two most common neural tube defects are spina bifida and anencephaly. In spina bifida, the fetal spinal column doesn't close completely. There is usually nerve damage that causes at least some paralysis of the legs. In anencephaly, most of the brain and skull do not develop. Babies with anencephaly are usually either stillborn or die shortly after birth. Another type of defect, Chiari malformation, causes the brain tissue to extend into the spinal canal. The exact causes of neural tube defects aren't known. You're at greater risk of having an infant with a neural tube defect if you have obesity, have poorly controlled diabetes, take certain antiseizure medicines, getting enough folic acid, a type of B vitamin, before and during pregnancy prevents most neural tube defects. Neural tube defects are usually diagnosed before the infant is born, through lab or imaging tests. There is no cure for neural tube defects. The nerve damage and loss of function that are present at birth are usually permanent. However, a variety of treatments can sometimes prevent further damage and help with complications. NIH: National Institute of Child Health and Human Development.

## Nutritional Support

Nutritional support is therapy for people who cannot get enough nourishment by eating or drinking.  You may need it if you can't swallow, have problems with your appetite, are severely malnourished, or can't absorb nutrients through your digestive system. You receive nutritional support through a needle or catheter placed in your vein or with a feeding tube, which goes into your stomach.

## Older Adult Health

People in the U.S. are living longer than ever before. Many older adults live active and healthy lives. But there's no getting around one thing: as we age, our bodies and minds change. You need to know what to expect. Some changes may just be part of normal aging, while others may be a warning sign of a medical problem. It is important to know the difference, and to let your health care provider know if you have any concerns having a healthy lifestyle can help you to deal with normal aging changes and make the most of your life. This includes healthy eating, regular physical activity, and making mental health a priority.

## Osteonecrosis

Osteonecrosis is a disease caused by reduced blood flow to bones in the joints. In people with healthy bones, new bone is always replacing old bone. In osteonecrosis, the lack of blood causes the bone to break down faster than the body can make enough new bone. The bone starts to die and may break down. You can have osteonecrosis in one or several bones. It is most common in the upper leg. Other common sites are your upper arm and your knees, shoulders and ankles. The disease can affect men and women of any age, but it usually strikes in your thirties, forties or fifties. At first, you might not have any symptoms. As the disease gets worse, you will probably have joint pain that becomes more severe. You may not be able to bend or move the affected joint very well. No one is sure what causes the disease. Risk factors include long-term steroid treatment, alcohol misuse, Joint injuries, having certain diseases, including arthritis and cancer. Doctors use imaging tests and other tests to diagnose osteonecrosis. Treatments include medicines, using crutches, limiting activities that put weight on the affected joints, electrical stimulation and surgery. NIH: National Institute of Arthritis and Musculoskeletal and Skin Diseases.

## Over-the-Counter Medicines

Over-the-counter (OTC) medicines are drugs you can buy without a prescription. Some OTC medicines relieve aches, pains, and itches. Some prevent or cure diseases, like tooth decay and athlete's foot. Others help manage recurring problems, like migraines and allergies. In the United States, the Food and Drug Administration decides whether a medicine is safe and effective enough to sell over-the-counter. This allows you to take a

more active role in your health care. But you also need to be careful to avoid mistakes. Make sure to follow the instructions on the drug label. If you don't understand the instructions, ask your pharmacist or health care provider. Also keep in mind that that there are still risks to taking OTC medicines. The medicine you are taking could interact with other medicines, supplements, foods, or drinks. Some medicines are not right for people with certain medical conditions. For example, people with high blood pressure should not take certain decongestants. Some people are allergic to certain medicines. Many medicines are not safe during pregnancy. If you are pregnant, check with your health care provider before taking any medicine. Be careful when giving medicines to children. Make sure that you give your child the correct dose. If you are giving your child a liquid medicine, don't use a kitchen spoon. Instead use a measuring spoon or a dosing cup marked in teaspoons. If you have been taking an OTC medicine but your symptoms don't go away, contact your health care provider. You should not take OTC medicines longer or in higher doses than the label recommends. Food and Drug Administration.

Pain Relievers

What are pain relievers? Pain relievers are medicines that reduce or relieve headaches, sore muscles, arthritis, or other aches and pains. There are many different pain medicines, and each with advantages and risks. Some types of pain respond better to certain medicines than others. Each person may also have a slightly different response to a pain reliever. What are the types of over-the-counter pain relievers? Over-the-counter (OTC) medicines are good for many types of pain. Two types of OTC pain medicines are usually recommended for mild to moderate pain. Acetaminophen (Tylenol) is used in many OTC and prescription medicines. It's often considered safer than other pain relievers. Unfortunately, it's common for people to take too much accidentally. Be careful not to take too much each day or use more than one medicine with acetaminophen. Check with your health care provider before taking medicines containing acetaminophen for more than ten days or five days for your child. Nonsteroidal anti-inflammatory drugs (NSAIDs) include aspirin, naproxen (Aleve), and ibuprofen (Advil, Motrin). These pain relievers are often most effective if you have pain and inflammation (swelling), such as for arthritis or menstrual cramps. If you take more than the recommended amount, NSAIDs may cause nausea, stomach pain, or ulcers. What are prescription pain relievers? If OTC pain relievers don't relieve your pain, your provider may prescribe something stronger. Many NSAIDs are also available at higher prescription doses. The most

powerful pain relievers are opioids, sometimes called narcotics. They include strong prescription pain relievers such as oxycodone, hydrocodone, or morphine. Opioids are sometimes used to treat moderate to severe pain. Your provider may give you a prescription to reduce pain after you have had a major injury or surgery. Opioids are very effective, but they can sometimes have serious side effects. There is also a risk of addiction. Because of the risks, you must use them only under your provider's supervision. What are some non-drug treatments for pain? Pain relievers are just one part of a pain treatment plan. Environmental factors, stress, and beliefs about pain may affect the way you feel about pain and respond to treatment. There are many things you can do to help ease pain. Treatment depends on the cause and type of pain. It's important to check with your provider before trying any of them. A few non-drug treatments for pain include acupuncture, hot or cold packs massage therapy, physical therapy, relaxation techniques.

Pancreatitis

The pancreas is a large gland behind the stomach and close to the first part of the small intestine. It secretes digestive juices into the small intestine through a tube called the pancreatic duct. The pancreas also releases the hormones insulin and glucagon into the bloodstream. Pancreatitis is inflammation of the pancreas. It happens when digestive enzymes start digesting the pancreas itself. Pancreatitis can be acute or chronic. Either form is serious and can lead to complications. Acute pancreatitis occurs suddenly and usually goes away in a few days with treatment. It is often caused by gallstones. Common symptoms are severe pain in the upper abdomen, nausea, and vomiting. Treatment is usually a few days in the hospital for intravenous (IV) fluids, antibiotics, and medicines to relieve pain. Chronic pancreatitis does not heal or improve. It gets worse over time and leads to permanent damage. The most common cause is heavy alcohol use. Other causes include cystic fibrosis and other inherited disorders, high levels of calcium or fats in the blood, some medicines, and autoimmune conditions. Symptoms include nausea, vomiting, weight loss, and oily stools. Treatment may also be a few days in the hospital for intravenous (IV) fluids, medicines to relieve pain, and nutritional support. After that, you may need to start taking enzymes and eat a special diet. It is also important to not smoke or drink alcohol. NIH: National Institute of Diabetes and Digestive and Kidney Diseases.

## Peripheral Arterial Disease

Peripheral arterial disease (PAD) happens when there is a narrowing of the blood vessels outside of your heart. The cause of PAD is atherosclerosis. This happens when plaque builds up on the walls of the arteries that supply blood to the arms and legs. Plaque is a substance made up of fat and cholesterol. It causes the arteries to narrow or become blocked. This can reduce or stop blood flow, usually to the legs. If severe enough, blocked blood flow can cause tissue death and can sometimes lead to amputation of the foot or leg. The main risk factor for PAD is smoking. Other risk factors include older age and diseases like diabetes, high blood cholesterol, high blood pressure, heart disease, and stroke. Many people who have PAD don't have any symptoms. If you have symptoms, they may include pain, numbness, achiness, or heaviness in the leg muscles. This happens when walking or climbing stairs. Weak or absent pulses in the legs or feet, sores or wounds on the toes, feet, or legs that heal slowly, poorly, or not at all, a pale or bluish color to the skin, a lower temperature in one leg than the other leg, poor nail growth on the toes and decreased hair growth on the legs, erectile dysfunction, especially among men who have diabetes. PAD can increase your risk of heart attack, stroke, and transient ischemic attack. Doctors diagnose PAD with a physical exam and heart and imaging tests. Treatments include lifestyle changes, medicines, and sometimes surgery. Lifestyle changes include dietary changes, exercise, and efforts to lower high cholesterol levels and high blood pressure. NIH: National Heart, Lung, and Blood Institute.

## Personality Disorders

What is personality? Your personality is your own way of thinking, feeling, behaving, and relating to others. Once you become an adult, your personality usually doesn't change much. What are personality disorders? Personality disorders are a group of mental disorders. They involve long-term patterns of thoughts and behaviors that are different from what is considered normal in your culture. The thoughts and behaviors are unhealthy and inflexible. They cause serious problems with relationships, work, and social activities. They can make it hard to deal with everyday stresses and problems. What are the types of personality disorders? There are 10 types of personality disorders. They are grouped into three different categories called clusters. The types in each cluster have some similar symptoms and characteristics. The clusters and types are cluster A personality disorders involve unusual and odd thoughts and behaviors. It includes

paranoid personality disorder, in which a person has paranoia (an extreme fear and distrust of others). They may think that someone is trying to harm them. Schizoid personality disorder, in which a person prefers to be alone and is not interested in having relationships with others. Schizotypal personality disorder, in which a person has unusual thoughts and ways of behaving and speaking. They are uncomfortable having close relationships with others. Cluster B personality disorders involve dramatic and emotional thoughts and behaviors that can keep changing. It includes antisocial personality disorder, in which a person has a long-term pattern of manipulating, exploiting, or violating the rights of others. Borderline personality disorder, in which a person has lots of trouble managing their emotions. This makes them impulsive and uncertain about how they see themselves. It can cause a lot of trouble in their relationships. Histrionic personality disorder, in which a person is dramatic, has strong emotions, and always wants attention from others. Narcissistic personality disorder, in which a person lacks empathy and wants to be admired by others. They think that they are better than others and that they deserve special treatment. Cluster C personality disorders involve anxious and fearful thoughts and behaviors. It includes avoidant personality disorder, in which a person is very shy and feels that they are not as good as others. They often avoid people because they fear rejection. Dependent personality disorder, in which a person depends too much on others and feels that they need to be taken care of. They may let others treat them badly because they are afraid of losing the relationship. Obsessive-compulsive personality disorder, in which a person needs control and order. They are perfectionists and can be inflexible. Although some of the symptoms are similar, this is not the same thing as obsessive-compulsive disorder (OCD). What causes personality disorders? Personality disorders usually begin when someone is in their teens or early adult years. The cause is unknown. However, genes and childhood experiences such as abuse and trauma likely play a role. What are the symptoms of personality disorders? The symptoms of each personality disorder are different. But each disorder involves problems and uncertainty with how people see themselves. The disorders also cause problems in relationships with other people. People with personality disorders may have trouble realizing that they have a problem. To them, their thoughts are normal. They may see others as the problem. So they may not seek help when they need it. Or, if they seek help, it may be because of another reason. They may be looking for help because of other mental health symptoms or problems with relationships and work. Sometimes someone else, such as a family member or social agency, may ask them to get help. How are personality disorders diagnosed? A mental health care

provider can diagnose personality disorders. A mental health provider is a health care professional who specializes in diagnosing and treating mental health problems. To make a diagnosis, the provider will consider the person's symptoms, experiences, and family medical history. A thorough medical exam may also be done to help rule out other possible causes of the symptoms. How are personality disorders treated? Talk therapy, also known as psychotherapy, is the main treatment for personality disorders. Medicines may help relieve certain symptoms, such as anxiety or mood swings.

## Pet Health

Pets can add fun, companionship and a feeling of safety to your life. Before getting a pet, think carefully about which animal is best for your family. What is each family member looking for in a pet? Who will take care of it? Does anyone have pet allergies? What type of animal suits your lifestyle and budget? Once you own a pet, keep it healthy. Know the signs of medical problems. Take your pet to the veterinarian if you notice loss of appetite, drinking a lot of water, gaining or losing a lot of weight quickly, strange behavior, being sluggish and tired, trouble getting up or down, strange lumps.

## Phobias

A phobia is a type of anxiety disorder. It is a strong, irrational fear of something that poses little or no real danger. There are many specific phobias. Acrophobia is a fear of heights. Agoraphobia is a fear of public places, and claustrophobia is a fear of closed-in places. If you become anxious and extremely self-conscious in everyday social situations, you could have a social phobia. Other common phobias involve tunnels, highway driving, water, flying, animals and blood. People with phobias try to avoid what they are afraid of. If they cannot, they may experience panic and fear, rapid heartbeat, shortness of breath, trembling, a strong desire to get away. Phobias usually start in children or teens, and continue into adulthood. The causes of specific phobias are not known, but they sometimes run in families. Treatment helps most people with phobias. Options include medicines, therapy or both. NIH: National Institute of Mental Health.

## Pituitary Disorders

Your pituitary gland is a pea-sized gland at the base of your brain. The pituitary is the

"master control gland" - it makes hormones that affect growth and the functions of other glands in the body. With pituitary disorders, you often have too much or too little of one of your hormones. Injuries can cause pituitary disorders, but the most common cause is a pituitary tumor.

Pregnancy and Substance Use

During pregnancy, there are many things you can do to keep yourself and your baby healthy. They include getting regular prenatal care, eating healthy, and staying active. But it's also very important to avoid substances that could be harmful to you and your baby, such as tobacco, alcohol, and drugs. Tobacco smoking during pregnancy passes nicotine, carbon monoxide, and many other harmful chemicals to your baby. Nicotine is not only a health danger for you, but it can also damage your developing baby's brain and lungs. Carbon monoxide can keep the developing baby from getting enough oxygen. If you smoke while pregnant, it raises the risk of your baby being born too small, too early, or with birth defects. During the first year of life, there is a higher risk of your baby dying from sudden infant death syndrome (SIDS). And later in life, your child may be more likely to have health problems, such as asthma and obesity. Other tobacco products, including e-cigarettes, also contain nicotine and are not safe to use during pregnancy. And some of the flavorings used in e-cigarettes may be harmful to developing babies. You will also want to try to avoid secondhand smoke, which has some of the same risks as smoking during pregnancy. There is no known amount of alcohol that is safe for you to drink during pregnancy and while trying to get pregnant. All types of alcohol are equally harmful, including all wines and beer. The risks from drinking during pregnancy include problems with the growth of the developing baby and fetal alcohol spectrum disorders (FASD). FASD is a life-long condition that can cause a mix of physical, behavioral, and learning problems, Using illegal drugs, such as cocaine, methamphetamines, and club drugs, during pregnancy can cause problems for both you and your baby. They may cause low birth weight babies, birth defects, or miscarriage. Your child may be more likely to have learning and developmental disabilities. And if you are injecting the drugs, that puts you at risk for HIV. HIV can be passed along to your baby during pregnancy. Prescription drug misuse, misusing prescription drugs can also be harmful. Misuse can include taking more than your prescribed dose or taking it more often, using it to get high, or taking someone else's medicines. The possible effects of misusing a medicine during pregnancy will depend on which medicine you are misusing

opioids. One type of drug that is a concern during pregnancy is opioids. Opioids include strong prescription pain relievers such as oxycodone, hydrocodone, fentanyl, and tramadol. The illegal drug heroin is also an opioid. Taking opioids during pregnancy can cause problems for you and your baby. The risks include birth defects, preterm birth, the loss of the baby, and neonatal abstinence syndrome (NAS). NAS causes withdrawal symptoms in newborn babies. "If you have pain and your health care provider suggests that you take prescription opioids during pregnancy, first discuss the risks and benefits with the provider. Then, if you both decide that you need to take the opioids, you can work together to minimize the risks. If you are using cannabis (marijuana), seek help from a health care provider to understand its risks and safety during pregnancy. If you are taking opioids or are addicted to drugs, don't stop taking them suddenly. That can be dangerous to you and the baby. Instead, contact your provider for help with getting off the drugs safely.

Prenatal Testing

Prenatal testing provides information about your baby's health before he or she is born. Some routine tests during pregnancy also check on your health. At your first prenatal visit, your health care provider will test for a number of things, including problems with your blood, signs of infections, and whether you are immune to rubella (German measles) and chickenpox. Throughout your pregnancy, your health care provider may suggest a number of other tests, too. Some tests are suggested for all women, such as screenings for gestational diabetes, down syndrome, and HIV. Other tests might be offered based on your age, personal or family medical history, ethnic background, results of routine tests. There are two types of tests, screening tests are tests that are done to see if you or your baby might have certain problems. They evaluate risk, but do not diagnose problems. If your screening test result is abnormal, it does not mean that there is a problem. It means that more information is needed. Your health care provider can explain what the test results mean and possible next steps. You may need diagnostic testing. Diagnostic tests show whether or not you or your baby have a certain problem. It is your choice whether or not to get the prenatal tests. You and your health care provider can discuss the risks and benefits of the tests, and what kind of information the tests can give you. Then you can decide which ones are right for you. Dept. of Health and Human Services Office on Women's Health.

## Refractive Errors

The cornea and lens of your eye helps you focus.  Refractive errors are vision problems that happen when the shape of the eye keeps you from focusing well. The cause could be the length of the eyeball (longer or shorter), changes in the shape of the cornea, or aging of the lens. Four common refractive errors are Myopia, or nearsightedness - clear vision close up but blurry in the distance, Hyperopia, or farsightedness - clear vision in the distance but blurry close up, Presbyopia - inability to focus close up as a result of aging, Astigmatism - focus problems caused by the cornea. The most common symptom is blurred vision. Other symptoms may include double vision, haziness, glare or halos around bright lights, squinting, headaches, or eye strain. Glasses or contact lenses can usually correct refractive errors. Laser eye surgery may also be a possibility. NIH: National Eye Institute.

## Respiratory Failure

What is respiratory failure? Respiratory failure is a condition in which your blood doesn't have enough oxygen or has too much carbon dioxide. Sometimes you can have both problems. When you breathe, your lungs take in oxygen. The oxygen passes into your blood, which carries it to your organs. Your organs, such as your heart and brain, need this oxygen-rich blood to work well. Another part of breathing is removing the carbon dioxide from the blood and breathing it out. Having too much carbon dioxide in your blood can harm your organs. What causes respiratory failure? Conditions that affect your breathing can cause respiratory failure. These conditions may affect the muscles, nerves, bones, or tissues that support breathing. Or they may affect the lungs directly. These conditions include diseases that affect the lungs, such as COPD (chronic obstructive pulmonary disease), cystic fibrosis, pneumonia, pulmonary embolism, and COVID-19Conditions that affect the nerves and muscles that control breathing, such as amyotrophic lateral sclerosis (ALS), muscular dystrophy, spinal cord injuries, and stroke problems with the spine, such as scoliosis (a curve in the spine). They can affect the bones and muscles used for breathing. Damage to the tissues and ribs around the lungs. An injury to the chest can cause this damage. Drug or alcohol over dose Inhalation injuries, such as from inhaling smoke (from fires) or harmful fumes. What are the symptoms of respiratory failure? The symptoms of respiratory failure depend on the

cause and the levels of oxygen and carbon dioxide in your blood. A low oxygen level in the blood can cause shortness of breath and air hunger (the feeling that you can't breathe in enough air). Your skin, lips, and fingernails may also have a bluish color. A high carbon dioxide level can cause rapid breathing and confusion. Some people who have respiratory failure may become very sleepy or lose consciousness. They also may have arrhythmia (irregular heartbeat). You may have these symptoms if your brain and heart are not getting enough oxygen. How is respiratory failure diagnosed? Your health care provider will diagnose respiratory failure based on your medical history. A physical exam, which often includes listening to your lungs to check for abnormal sounds, listening to your heart to check for arrhythmia, looking for a bluish color on your skin, lips, and fingernails, diagnostic tests, such as pulse oximetry, a small sensor that uses a light to measure how much oxygen is in your blood. The sensor goes on the end of your finger or on your ear. Arterial blood gas test, a test that measures the oxygen and carbon dioxide levels in your blood. The blood sample is taken from an artery, usually in your wrist. Once you are diagnosed with respiratory failure, your provider will look for what is causing it. Tests for this often include a chest x-ray. If your provider thinks you may have arrhythmia because of the respiratory failure, you may have an EKG (electrocardiogram). This is simple, painless test that detects and records your heart's electrical activity. What are the treatments for respiratory failure? Treatment for respiratory failure depends on whether it is acute (short-term) or chronic (ongoing), how severe it is, and what is causing it. Acute respiratory failure can be a medical emergency. You may need treatment in intensive care unit at a hospital. Chronic respiratory failure can often be treated at home. But if your chronic respiratory failure is severe, you might need treatment in a long-term care center. One of the main goals of treatment is to get oxygen to your lungs and other organs and remove carbon dioxide from your body. Another goal is to treat the cause of the condition. Treatments may include oxygen therapy, through a nasal cannula (two small plastic tubes that go in your nostrils) or through a mask that fits over your nose and mouth. Tracheostomy, a surgically-made hole that goes through the front of your neck and into your windpipe. A breathing tube, also called a tracheostomy, or trach tube, is placed in the hole to help you breathe. Ventilator, a breathing machine that blows air into your lungs. It also carries carbon dioxide out of your lungs. Other breathing treatments, such as noninvasive positive pressure ventilation (NPPV), which uses mild air pressure to keep your airways open while you sleep. Another treatment is a special bed that rocks back and forth, to help you breathe in and out.Fluids, often through an intravenous (IV), to improve blood flow

throughout your body. They also provide nutrition or medicines for discomfort treatments for the cause of the respiratory failure. These treatments may include medicines and procedures. If you have respiratory failure, see your health care provider for ongoing medical care. Your provider may suggest pulmonary rehabilitation. If your respiratory failure is chronic, make sure that you know when and where to get help for your symptoms. You need emergency care if you have severe symptoms, such as trouble catching your breath or talking. You should call your provider if you notice that your symptoms are worsening or if you have new signs and symptoms. Living with respiratory failure may cause fear, anxiety, depression, and stress. Talk therapy, medicines, and support groups can help you feel better. NIH: National Heart, Lung, and Blood Institute.

## Rosacea

Rosacea is a long-term disease that affects your skin and sometimes your eyes. It causes redness and pimples. Rosacea is most common in women and people with fair skin. It most often affects middle-aged and older adults. In most cases, rosacea only affects the face. Symptoms can include frequent redness of the face, or flushing small, red lines under the skin acne, a swollen nose, thick skin, usually on the forehead, chin, and cheeks Red, dry, itchy eyes and sometimes vision problems No one knows what causes rosacea. You may be more likely to have it if you blush a lot or if rosacea runs in your family. Rosacea is not dangerous. There is no cure, but treatments can help. They include medicines and sometimes surgery. NIH: National Institute of Arthritis and Musculoskeletal and Skin Diseases.

## Safety

As parents, we want to keep our children safe from harm. Take steps to keep your children safe, install the right child safety seat in your car, teach children how to cross the street safely, make sure they wear the right gear and equipment for sports, install and test smoke alarms store medicines, cleaners and other dangerous substances in locked cabinets, baby proof your home, and don't leave small children unattended.

## Skin Aging

Your skin changes as you age. You might notice wrinkles, age spots and dryness. Your

skin also becomes thinner and loses fat, making it less plump and smooth. It might take longer to heal, too. Sunlight is a major cause of skin aging. You can protect yourself by staying out of the sun when it is strongest, using sunscreen with an SPF of 15 or higher, wearing protective clothing, and avoiding sunlamps and tanning beds. Cigarette smoking also contributes to wrinkles. The wrinkling increases with the amount of cigarettes and number of years a person has smoked. Many products claim to revitalize aging skin or reduce wrinkles, but the Food and Drug Administration has approved only a few for sun-damaged or aging skin. Various treatments soothe dry skin and reduce the appearance of age spots. NIH: National Institute on Aging.

## Skin Cancer

Skin cancer is the most common form of cancer in the United States. The two most common types are basal cell cancer and squamous cell cancer. They usually form on the head, face, neck, hands, and arms. Another type of skin cancer, melanoma, is more dangerous but less common. Anyone can get skin cancer, but it is more common in people who spend a lot of time in the sun or have been sunburned, have light-colored skin, hair and eyes, have a family member with skin cancer, are over age 50. You should have your doctor check any suspicious skin markings and any changes in the way your skin looks. Treatment is more likely to work well when cancer is found early. If not treated, some types of skin cancer cells can spread to other tissues and organs. Treatments include surgery, radiation therapy, chemotherapy, photodynamic therapy (PDT), and biologic therapy. PDT uses a drug and a type of laser light to kill cancer cells. Biologic therapy boosts your body's own ability to fight cancer. NIH: National Cancer Institute.

## Sleep Apnea

Sleep apnea is a common disorder that causes your breathing to stop or get very shallow. Breathing pauses can last from a few seconds to minutes. They may occur 30 times or more an hour. The most common type is obstructive sleep apnea. It causes your airway to collapse or become blocked during sleep. Normal breathing starts again with a snort or choking sound. People with sleep apnea often snore loudly. However, not everyone who snores has sleep apnea. You are more at risk for sleep apnea if you are overweight, male, or have a family history or small airways. Children with enlarged

tonsils or adenoids may also get it. Doctors diagnose sleep apnea based on medical and family histories, a physical exam, and sleep study results. When your sleep is interrupted throughout the night, you can be drowsy during the day. People with sleep apnea are at higher risk for car crashes, work-related accidents, and other medical problems. If you have it, it is important to get treatment. Lifestyle changes, mouthpieces, surgery, and breathing devices can treat sleep apnea in many people. NIH: National Heart, Lung, and Blood Institute.

Sudden Cardiac Arrest

What is sudden cardiac arrest (SCA)? Sudden cardiac arrest (SCA) is a condition in which the heart suddenly stops beating. When that happens, blood stops flowing to the brain and other vital organs. If it is not treated, SCA usually causes death within minutes. But quick treatment with a defibrillator may be lifesaving. How is sudden cardiac arrest (SCA) different from a heart attack? A heart attack is different from an SCA. A heart attack happens when blood flow to the heart is blocked. During a heart attack, the heart usually doesn't suddenly stop beating. With an SCA, the heart stops beating. Sometimes an SCA can happen after or during recovery from a heart attack. What causes sudden cardiac arrest (SCA)? Your heart has an electrical system that controls the rate and rhythm of your heartbeat.  An SCA can happen when the heart's electrical system is not working right and causes irregular heartbeats. Irregular heartbeats are called arrhythmias. There are different types. They may cause the heart to beat too fast, too slow, or with an irregular rhythm. Some can cause the heart to stop pumping blood to the body; this is the type that causes SCA. Certain diseases and conditions can cause the electrical problems that lead to SCA. They include ventricular fibrillation, a type of arrhythmia where the ventricles (the heart's lower chambers) don't beat normally. Instead, they beat very fast and very irregularly. They can't pump blood to the body. This causes most SCAs. Coronary artery disease (CAD), also called ischemic heart disease. CAD happens when the arteries of the heart cannot deliver enough oxygen-rich blood to the heart. It is often caused by the buildup of plaque, a waxy substance, inside the lining of larger coronary arteries. The plaque blocks some or all of the blood flow to the heart. Some types of physical stress can cause your heart's electrical system to fail, such as:

- Intense physical activity in which your body releases the hormone adrenaline. This hormone can trigger SCA in people who have heart problems.
- Very low blood levels of potassium or magnesium, as these minerals play an

important role in your heart's electrical system.
- Major blood loss.
- Severe lack of oxygen.
- Certain inherited disorders, which can cause arrhythmias or problems with the structure of your heart.
- Structural changes in the heart, such as an enlarged heart due to high blood pressure or advanced heart disease. Heart infections can also cause changes to the structure of the heart.

You are at a higher risk for SCA if you:

- Have coronary artery disease (CAD). Most people with SCA have CAD, but CAD usually does not cause symptoms, so you may not know that you have it.
- Are older, as your risk increases with age.
- Are a man, since SCA is more common in men than in women.
- Are Black or African American, especially if you have other conditions such as diabetes, high blood pressure, heart failure, or chronic kidney disease.
- Have a personal history of irregular heartbeats (arrhythmia).
- Have a personal or family history of SCA or inherited disorders that can cause arrhythmia.
- Have a problem with drug or alcohol use.
- Have had a heart attack.
- Have heart failure.

What are the symptoms of sudden cardiac arrest (SCA)? Usually, the first sign of SCA is loss of consciousness (fainting). This happens when the heart stops beating. Some people may have a racing heartbeat or feel dizzy or light-headed just before they faint. And sometimes people have chest pain, shortness of breath, nausea, or vomiting in the hour before they have an SCA. How is sudden cardiac arrest (SCA) diagnosed? SCA happens without warning and requires emergency treatment. Health care providers rarely diagnose SCA with medical tests as it's happening. Instead, it is usually diagnosed after it happens. Providers do this by ruling out other causes of a person's sudden collapse. If you are at high risk for SCA, your provider may refer you to a cardiologist, a doctor who specializes in heart diseases. The cardiologist may ask you to get various heart health tests to see how well you heart is working. He or she will work with you to decide whether you need treatment to prevent SCA. What are the treatments for sudden cardiac

arrest (SCA)? SCA is an emergency. A person having SCA needs to be treated with a defibrillator right away. A defibrillator is a device sends an electric shock to the heart. The electric shock can restore a normal rhythm to a heart that's stopped beating. To work well, it needs to be done within minutes of the SCA. Most police officers, emergency medical technicians, and other first responders are trained and equipped to use a defibrillator. Call 9-1-1 right away if someone has signs or symptoms of SCA. The sooner you call for help, the sooner lifesaving treatment can begin. What should I do if I think that someone has had an SCA? Many public places such as schools, businesses, and airports have automated external defibrillators (AEDs). AEDs are special defibrillators that untrained people can use if they think that someone has had SCA. AEDS are programmed to give an electric shock if they detect a dangerous arrhythmia. This prevents giving a shock to someone who may have fainted but isn't having SCA. If you see someone who you think has had SCA, you should give cardiopulmonary resuscitation (CPR) until defibrillation can be done. People who are at risk for SCA may want to consider having an AED at home. Ask your cardiologist to help you decide whether having an AED in your home might help you. What are the treatments after surviving sudden cardiac arrest (SCA)? If you survive SCA, you'll likely be admitted to a hospital for ongoing care and treatment. In the hospital, your medical team will closely watch your heart. They may give you medicines to try to reduce the risk of another SCA. They will also try to find out what caused your SCA. If you're diagnosed with coronary artery disease, you may have an angioplasty or coronary artery bypass surgery. These procedures help restore blood flow through narrowed or blocked coronary arteries. Often, people who have had SCA get a device called an implantable cardioverter defibrillator (ICD). This small device is surgically placed under the skin in your chest or abdomen. An ICD uses electric pulses or shocks to help control dangerous arrhythmias. Can sudden cardiac arrest (SCA) be prevented? You may be able to lower your risk of SCA by following a heart-healthy lifestyle. If you have coronary artery disease or another heart disease, treating that disease can also lower your risk of SCA. If you have had an SCA, getting an implantable cardioverter defibrillator (ICD) can lower your chance of having another SCA.NIH: National Heart, Lung, and Blood Institute.

## Sun Exposure

Ultraviolet (UV) rays are an invisible form of radiation. They can pass through your skin and damage your skin cells. Sunburns are a sign of skin damage. Suntans aren't healthy,

either. They appear after the sun's rays have already killed some cells and damaged others. UV rays can cause skin damage during any season or at any temperature. They can also cause eye problems, wrinkles, skin spots, and skin cancer.

To protect yourself :

- Stay out of the sun when it is strongest (between 10 a.m. and 2 p.m.)
- Use sunscreen with an SPF of 15 or higher
- Wear protective clothing
- Wear wraparound sunglasses that provide 100% UV ray protection
- Avoid sunlamps and tanning beds Check your skin regularly for changes in the size, shape, color, or feel of birthmarks, moles, and spots. Such changes are a sign of skin cancer.

Taste and Smell Disorders

Our senses of taste and smell give us great pleasure. Taste helps us enjoy food and beverages. Smell lets us enjoy the scents and fragrances like roses or coffee. Taste and smell also protect us, letting us know when food has gone bad or when there is a gas leak. They make us want to eat, ensuring we get the nutrition we need. People with taste disorders may taste things that aren't there, may not be able to tell the difference in tastes, or can't taste at all. People with smell disorders may lose their sense of smell, or things may smell different. A smell they once enjoyed may now smell bad to them. Many illnesses and injuries can cause taste and smell disorders, including colds and head injuries. Some drugs can also affect taste and smell. Most people lose some ability to taste and smell as they get older. Treatment varies, depending on the problem and its cause. NIH: National Institute on Deafness and Other Communication Disorders.

Teenage Pregnancy

Most teenage girls don't plan to get pregnant, but many do. Teen pregnancies carry extra health risks to both the mother and the baby. Often, teens don't get prenatal care soon enough, which can lead to problems later on. They have a higher risk for pregnancy-related high blood pressure and its complications. Risks for the baby include premature birth and a low birth weight. If you're a pregnant teen, you can help yourself and your baby by:

- Getting regular prenatal care
- Taking your prenatal vitamins for your health and to prevent some birth defects
- Avoiding smoking, alcohol, and drugs
- Using a condom, if you are having sex, to prevent sexually transmitted infections (STIs) that could hurt your baby. If you or your partner is allergic to latex, you can use polyurethane condoms.

## Teen Development

As a teenager, you go through many physical, mental, emotional, and social changes. The biggest change is puberty, the process of becoming sexually mature. It usually happens between ages 10 and 14 for girls and ages 12 and 16 for boys. As your body changes, you may have questions about sexual health. During this time, you start to develop your own unique personality and opinions. Some changes that you might notice include increased independence from your parents, more concerns about body image and clothes, more influence from peers, greater ability to sense right and wrong. All of these changes can sometimes seem overwhelming. Some sadness or moodiness can be normal. But feeling very sad, hopeless, or worthless could be warning signs of a mental health problem. If you need help, talk to your parents, school counselor, or health care provider.

## Teen Health

As a teenager, you go through many changes. Your body is on its way to becoming its adult size. You may notice that you can't fit into your old shoes or that your jeans are now 3 inches too short. Along with these changes, you are probably becoming more independent and making more of your own choices. Some of the biggest choices you face are about your health. Healthy habits, including eating a healthy diet and being physically active, can help you feel good, look good, and do your best in school, work, or sports. They might also prevent diseases such as diabetes, high blood pressure, heart disease, osteoporosis, stroke, and some cancers when you are older.

## Tick Bites

What are ticks? Ticks are small parasites. They may look like insects, but they have eight legs and are related to spiders. Ticks feed on the blood of people and warm-blooded animals. There are many types of ticks in the United States, and they live in different

parts of the country. Ticks can be different colors and sizes. They can be light-colored, reddish brown, or dark brown. Some ticks are so small that they can be difficult to see. Ticks may get on you if you walk though areas where they live, such as tall grass, leaf litter or shrubs. Why do I need to be worried about tick bites? If you spend time outdoors or have pets that go outdoors, you need to beware of ticks. When they bite, certain types of ticks can pass on germs that cause different diseases. Sometimes the symptoms can be mild. In other cases, you can have serious, long-lasting health problems. Some of the diseases you can get from a tick bite (called tickborne diseases) include Lyme disease, alpha-gal syndrome (tick bite red meat allergy), Babesiosis, ehrlichiosis, rocky Mountain spotted fever, tularemia. What happens if I get bitten by a tick? You may not feel it when a tick bites you. The tick can stay attached to your body for several days. If that tick is infected, it can pass along any germs to you once it starts sucking your blood. But if you catch it and remove it before it has filled up on your blood, you are less likely to get infected. How do I remove a tick? If you find a tick attached to your skin, remove the tick as soon as you can. You could use a tick removal device or a fine-tipped tweezers using the tweezers, grab the tick as close to your skin as possible, pull upward with steady, even pressure. Don't twist or jerk the tick. You want to remove the whole tick in one piece if you can. If the mouth-parts of the tick break off and stay in the skin, try to remove them. But if you can't remove them easily, then leave them. Thoroughly clean the bite area and your hands with rubbing alcohol or soap and water. When do I need to contact my health care provider about a tick bite? Many tickborne diseases can have similar signs and symptoms. The most common are fever chills aches and pains rash. If you develop any of these symptoms within several weeks of removing a tick, contact your provider. How can I prevent tick bites? There are steps you can take to prevent tick bites:

- Avoid wooded, brushy, and grassy areas, especially during warmer months.
- Wear insect repellent with DEET, picaridin or another U.S. Environmental Protection Agency (EPA)-registered insect repellent.
- Wear light-colored protective clothing.
- Treat your clothing and gear with products containing 0.5% permethrin.
- Tuck your pant legs into your socks and your shirt into your pants.
- Remove your clothing after being outdoors.
- Check your clothing for ticks and remove any ticks that you find. Wash and dry your clothes at high temperatures.
- Check yourself, your children, and your pets daily for ticks and carefully remove

any ticks you find.

Underage Drinking

Alcohol is the most widely misused substance among America's youth. Drinking by young people has big health and safety risks. It is dangerous because it:

- Causes many deaths and injuries
- Can lead to poor decisions about engaging in risky behavior, such as drinking and driving or unprotected sex
- Increases the risk of physical and sexual assault
- Can lead to other problems, such as trouble in school
- May interfere with brain development
- Increases the risk of alcohol problems later in life

Kids often begin drinking to look "cool" or fit in with their peers. Parents can help their kids avoid alcohol problems. Open communication and conversations about drinking are important. So is being involved in your child's life. Get help for your child if you suspect a drinking problem. NIH: National Institute on Alcohol Abuse and Alcoholism.

Vaccines

What are vaccines? Vaccines are injections (shots), liquids, pills, or nasal sprays that you take to teach the immune system to recognize and defend against harmful germs. The germs could be viruses or bacteria. Some types of vaccines contain germs that cause disease. But the germs have been killed or weakened enough that they won't make your child sick. Some vaccines only contain a part of a germ. Other types of vaccines include instructions for your cells to make a protein of the germ. These different vaccine types all spark an immune response, which helps the body fight off the germs. Your child's immune system will also remember the germ and attack it if that germ ever invades again. This protection against a certain disease is called immunity. Why do I need to vaccinate my child? Babies are born with immune systems that can fight most germs, but there are some serious diseases they can't handle. That's why they need vaccines to strengthen their immune system. These diseases once killed or harmed many infants, children, and adults. But now with vaccines, your child can get immunity from these diseases without having to get sick. And for a few vaccines, getting vaccinated can

actually give you a better immune response than getting the disease would. Vaccinating your child also protects others. Normally, germs can travel quickly through a community and make a lot of people sick. If enough people get sick, it can lead to an outbreak. But when enough people are vaccinated against a certain disease, it's harder for that disease to spread to others. The entire community is less likely to get the disease. This is called "community immunity. "Community immunity is especially important for the people who can't get certain vaccines. For example, they may not be able to get a vaccine because they have weakened immune systems. Others may be allergic to certain vaccine ingredients. And newborn babies are too young to get some vaccines. Community immunity can help to protect them all. Are vaccines safe for children? Vaccines are safe. They must go through extensive safety testing and evaluation before they are approved in the United States. Some people worry that childhood vaccines could cause autism spectrum disorder (ASD). But many scientific studies have looked at this and have found no link between vaccines and autism. Can vaccines overload my child's immune system? No, vaccines do not overload the immune system. Every day, a healthy child's immune system successfully fights off thousands of germs. When your child gets vaccines, they are getting weakened or dead germs. So even if they get several vaccines in one day, they are being exposed to a tiny amount of germs compared to what they encounter every day in their environment. When do I need to vaccinate my child? Your child will get vaccines during well-child visits. They will be given according to the vaccine schedule. This schedule lists which vaccines are recommended for children. It includes who should get the vaccines, how many doses they need, and at what age they should get them. In the United States, the Centers for Disease Control and Prevention (CDC) publishes the vaccine schedule. Following the vaccine schedule allows your child to get protection from the diseases at exactly the right time. It gives their body the chance to build up immunity before being exposed to these very serious diseases.

## Vasculitis

Vasculitis is an inflammation of the blood vessels. It happens when the body's immune system attacks the blood vessel by mistake. It can happen because of an infection, a medicine, or another disease. The cause is often unknown. Vasculitis can affect arteries, veins and capillaries. Arteries are vessels that carry blood from the heart to the body's organs. Veins are the vessels that carry blood back to the heart. Capillaries are tiny blood vessels that connect the small arteries and veins. When a blood vessel becomes inflamed,

it can: Narrow, making it more difficult for blood to get through. Close off completely so that blood can't get through. Stretch and weaken so much that it bulges. The bulge is called an aneurysm. If it bursts, it can cause dangerous bleeding inside the body. Symptoms of vasculitis can vary, but usually include fever, swelling and a general sense of feeling ill. The main goal of treatment is to stop the inflammation. Steroids and other medicines to stop inflammation are often helpful. NIH: National Heart, Lung, and Blood Institute.

Veterans and Military Health

Military service members and veterans have made sacrifices to our country, and they may face lots of different health issues. Some of the most common health problems they may have include chronic pain, sleep disorders, and mental health disorders. But they may also face some different health risks than civilians. Serving to protect our country is a special job, and along with it comes some special risks and job hazards. These include different types of injuries and health problems from exposures. What types of injuries do service members face? During their service, members are at risk for various injuries. These injuries can happen during training or while in combat. Sometimes the injuries are life-threatening or serious enough to cause disability. Others may not be as serious, but they may be painful and can affect daily life. Some of the specific types of injuries that service members may face include sprains and strains, especially in the ankles and knees. These injuries are often caused by exercise and running. Back and shoulder injuries, often from lifting and carrying. Tinnitus and hearing loss, typically from exposure to noise. Head injuries and traumatic brain injuries (TBIs). Shrapnel and gunshot wounds. Lost limbs. What other special health problems do service members face? There may also be a risk of health problems from exposure to environmental hazards, such as contaminated water, chemicals, infections, and burn pits. Sometimes the health problems caused by exposures don't develop until years later. Some service members experience military sexual trauma (MST). This includes sexual assault and sexual harassment. What mental health issues do service members and veterans face? Being in combat and being separated from your family can be stressful. So can readjusting to civilian life after the military. All of this stress can put service members and veterans at risk for mental health problems, including Depression, Post-traumatic stress disorder (PTSD), anxiety alcohol and drug use disorders. There is also a risk of suicide. Veterans who are in crisis can get help from the Veteran's Crisis line by calling 988 and then pressing 1, texting to 838255,

chatting with them online. What health care services are available to service members and veterans? There are health care services especially for service members and veterans through TRICARE, which is the Department of Defense's health care program. It has insurance plans and other services for uniformed service members, retirees, and their families around the world. The Veterans Health Administration, which is part of the Department of Veterans Affairs (VA). It provides medical and social support services to eligible veterans. The VA 's expanded health care and benefits for veterans exposed to burn pits, Agent Orange, and other toxic substances. To better understand and treat the health needs of veterans in the future, the VA created the Million Veteran Program (MVP). This research program is looking at how genes, lifestyle, military experiences, and exposures affect health and wellness in veterans.

Viral Infections

What are viruses? Viruses are very tiny germs. They are made of genetic material (either DNA or RNA) inside of a protein coating. There are a huge number of viruses on earth. Only a small number of them can infect humans. Those viruses can infect our cells, which may cause disease. Some of the diseases that viruses can cause include the common cold, the flu, COVID-19. How are viruses spread? Viruses can be spread in different ways, through droplets and particles that are breathed out by someone who has the infection. You might breathe in the droplets or particles, or they could land on your mouth, nose, or eyes, by touching surfaces or objects that have the virus on them and then touching your mouth, nose, or eyes. From the pregnant parent to the baby during pregnancy. Through contaminated food or water. By being bitten by an infected insect or animal. Through sexual contact (usually vaginal, anal and oral sex) with someone who has the infection. How do viruses cause disease? Viruses are like hijackers. They invade living, normal cells. They then use those cells to multiply (make copies of themselves). This process is also called replication. The process can kill, damage, or change the infected cells. Sometimes this can make you sick. The symptoms can range from mild to very severe. Other times, your immune system may be able to fight it off and you may not have any symptoms. Each different virus usually only infects one type of cell in your body. For example, hepatitis viruses affect the cells in the liver. HIV infects a certain type of immune system cell. What are the treatments for viral infections? For most viral infections, treatments can only help with symptoms while you wait for your immune system to fight off the virus. There are antiviral medicines to treat some viral infections.

Antibiotics do not work for viral infections. Can viral infections be prevented? Vaccines can help prevent you from getting many viral diseases. You may be able to prevent some viral infections by proper hand washing, paying attention to food safety, cleaning surfaces that may be infected with germs, avoiding contact with wild animals, and preventing insect bites by using insect repellent when you go outdoors. If you travel to an area that has a high risk of diseases from insect bites, also wear long pants, shirts, and socks, practicing safe sex (using a condom every time you have anal, vaginal, or oral sex), avoiding close contact with people who are sick.

Vitamin C

Vitamins are substances that your body needs to grow and develop normally. Vitamin C is an antioxidant. It is important for your skin, bones, and connective tissue. It promotes healing and helps the body absorb iron. Vitamin C comes from fruits and vegetables. Good sources include citrus, red and green peppers, tomatoes, broccoli, and greens. Some juices and cereals have added vitamin C. Some people may need extra vitamin C: Pregnant/breast feeding women, Smokers People recovering from surgery, Burn victims.

Vitamin E

Vitamins are substances that your body needs to grow and develop normally. Vitamin E is an antioxidant. It plays a role in your immune system and metabolic processes. Good sources of vitamin E include vegetable oils, margarine nuts and seeds, leafy greens, vitamin E is also added to foods like cereals. Most people get enough vitamin E from the foods they eat. People with certain disorders, such as liver diseases, cystic fibrosis, and Crohn's disease may need extra vitamin E. Vitamin E supplements may be harmful for people who take blood thinners and other medicines. Check with your health care provider before taking the supplements. NIH: National Institutes of Health Office of Dietary Supplements.

Wounds and Injuries

Your ankle bone and the ends of your two lower leg bones make up the ankle joint. Your ligaments, which connect bones to one another, stabilize and support it. Your muscles and tendons move it. The most common ankle problems are sprains and

fractures (broken bones). A sprain is an injury to the ligaments. It may take a few weeks to many months to heal completely. A fracture is a break in a bone. You can also injure other parts of the ankle such as tendons, which join muscles to bone, and cartilage, which cushions your joints. Ankle sprains and fractures are common sports injuries.