Search about the Non-communicable diseases(الامراض غير المعدية):

1-cancer:

Cancer is a disease in which some of the body's cells grow uncontrollably and spread to other parts of the body. Cancer can start almost anywhere in the human body, which is made up of trillions of cells. Normally, human cells grow and multiply (through a process called cell division) to form new cells as the body needs them. When cells grow old or become damaged, they die, and new cells take their place.
Sometimes this orderly process breaks down, and abnormal or damaged cells grow and multiply when they shouldn't. These cells may form tumors, which are lumps of tissue. Tumors can be cancerous or not cancerous (benign).

Cancerous tumors spread into, or invade, nearby tissues and can travel to distant places in the body to form new tumors (a process called metastasis). Cancerous tumors may also be called malignant tumors. Many cancers form solid tumors, but cancers of the blood, such as leukemias, generally do not.

Benign tumors do not spread into, or invade, nearby tissues. When removed, benign tumors usually don't grow back, whereas cancerous tumors sometimes do. Benign tumors can sometimes be quite large, however. Some can cause serious symptoms or be life threatening, such as benign tumors in the brain.

How Does Cancer Develop?

Cancer is a genetic disease—that is, it is caused by changes to genes that control the way our cells function, especially how they grow and divide.

Genetic changes that cause cancer can happen because:

- of errors that occur as cells divide.
- of damage to DNA caused by harmful substances in the environment, such as the chemicals in tobacco smoke and ultraviolet rays from the sun. (Our Cancer Causes and Prevention section has more information.)
- they were inherited from our parents.

The body normally eliminates cells with damaged DNA before they turn cancerous. But the body's ability to do so goes down as we age. This is part of the reason why there is a higher risk of cancer later in life.

Each person's cancer has a unique combination of genetic changes. As the cancer continues to grow, additional changes will occur. Even within the same tumor, different cells may have different genetic changes.

Types of Genes that Cause Cancer:

The genetic changes that contribute to cancer tend to affect three main types of genes—proto-oncogenes, tumor suppressor genes, and DNA repair genes. These changes are sometimes called “drivers” of cancer.

Porto-oncogenes are involved in normal cell growth and division. However, when these genes are altered in certain ways or are more active than normal, they may become cancer-causing genes (or oncogenes), allowing cells to grow and survive when they should not.

Tumor suppressor genes are also involved in controlling cell growth and division. Cells with certain alterations in tumor suppressor genes may divide in an uncontrolled manner.

DNA repair genes are involved in fixing damaged DNA. Cells with mutations in these genes tend to develop additional mutations in other genes and changes in their chromosomes, such as duplication s and deletions of chromosome parts. Together, these mutations may cause the cells to become cancerous.

As scientists have learned more about the molecular changes that lead to cancer, they have found that certain mutations commonly occur in many types of cancer. Now there are many cancer treatments available that target gene mutations found in cancer. A few of these treatments can be used by anyone with a cancer that has the targeted mutation, no matter where the cancer started growing.

When Cancer Spreads:

A cancer that has spread from the place where it first formed to another place in the body is called metastatic cancer. The process by which cancer cells spread to other parts of the body is called metastasis.

Metastatic cancer has the same name and the same type of cancer cells as the original, or primary, cancer. For example, breast cancer that forms a metastatic tumor in the lung is metastatic breast cancer, not lung cancer.

Under a microscope, metastatic cancer cells generally look the same as cells of the original cancer. Moreover, metastatic cancer cells and cells of the original cancer usually have some molecular features in common, such as the presence of specific chromosome changes.

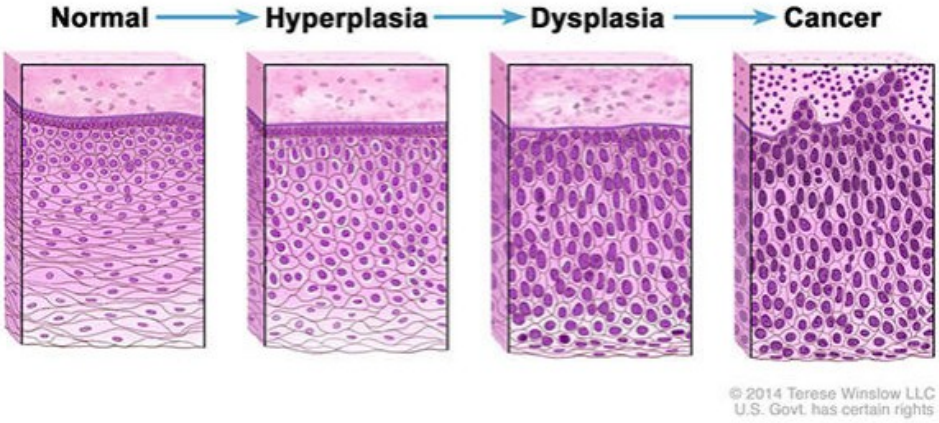
In some cases, treatment may help prolong the lives of people with metastatic cancer. In other cases, the primary goal of treatment for metastatic cancer is to control the growth of the cancer or to relieve symptoms it is causing. Metastatic

tumors can cause severe damage to how the body functions, and most people who die of cancer die of metastatic disease.

Tissue Changes that Are Not Cancer:

Not every change in the body's tissues is cancer. Some tissue changes may develop into cancer if they are not treated, however. Here are some examples of tissue changes that are not cancer but, in some cases, are monitored because they could become cancer:

- **Hyperplasia** occurs when cells within a tissue multiply faster than normal and extra cells build up. However, the cells and the way the tissue is organized still look normal under a microscope. Hyperplasia can be caused by several factors or conditions, including chronic irritation.
- **Dysplasia** is a more advanced condition than hyperplasia. In dysplasia, there is also a buildup of extra cells. But the cells look abnormal and there are changes in how the tissue is organized. In general, the more abnormal the cells and tissue look, the greater the chance that cancer will form. Some types of dysplasia may need to be monitored or treated, but others do not. An example of dysplasia is an abnormal mole (called a dysplastic nevus) that forms on the skin. A dysplastic nevus can turn into melanoma, although most do not.
- **Carcinoma in situ** is an even more advanced condition. Although it is sometimes called stage 0 cancer, it is not cancer because the abnormal cells do not invade nearby tissue the way that cancer cells do. But because some carcinomas in situ may become cancer, they are usually treated.



Types of Cancer:

There are more than 100 types of cancer. Types of cancer are usually named for the organs or tissues where the cancers form. For example, lung cancer starts in the lung, and brain cancer starts in the brain. Cancers also may be described by the type of cell that formed them, such as an epithelial cell or a squamous cell.

You can search NCI's website for information on specific types of cancer based on the cancer's location in the body or by using our A to Z List of Cancers. We also have information on childhood cancers and cancers in adolescents and young adults.

Here are some categories of cancers that begin in specific types of cells:

Carcinoma

Carcinomas are the most common type of cancer. They are formed by epithelial cells, which are the cells that cover the inside and outside surfaces of the body. There are many types of epithelial cells, which often have a column-like shape when viewed under a microscope.

Carcinomas that begin in different epithelial cell types have specific names:

Adenocarcinoma is a cancer that forms in epithelial cells that produce fluids or mucus. Tissues with this type of epithelial cell are sometimes called glandular tissues. Most cancers of the breast, colon, and prostate are adenocarcinomas.

Basal cell carcinoma is a cancer that begins in the lower or basal (base) layer of the epidermis, which is a person's outer layer of skin.

Squamous cell carcinoma is a cancer that forms in squamous cells, which are epithelial cells that lie just beneath the outer surface of the skin. Squamous cells also line many other organs, including the stomach, intestines, lungs, bladder, and kidneys. Squamous cells look flat, like fish scales, when viewed under a microscope. Squamous cell carcinomas are sometimes called epidermoThere are more than 100 types of cancer. Types of cancer are usually named for the organs or tissues where the cancers form. For example, lung cancer starts in the lung, and brain cancer starts in the brain. Cancers also may be described by the type of cell that formed them, such as an epithelial cell or a squamous cell.

You can search NCI’s website for information on specific types of cancer based on the cancer’s location in the body or by using our A to Z List of Cancers. We also have information on childhood cancers and cancers in adolescents and young adults.

Here are some categories of cancers that begin in specific types of cells:

Carcinoma

Carcinomas are the most common type of cancer. They are formed by epithelial cells, which are the cells that cover the inside and outside surfaces of the body. There are many types of epithelial cells, which often have a column-like shape when viewed under a microscope.

Carcinomas that begin in different epithelial cell types have specific names:

Adenocarcinoma is a cancer that forms in epithelial cells that produce fluids or mucus. Tissues with this type of epithelial cell are sometimes called glandular tissues. Most cancers of the breast, colon, and prostate are adenocarcinomas.

Basal cell carcinoma is a cancer that begins in the lower or basal (base) layer of the epidermis, which is a person’s outer layer of skin.

Squamous cell carcinoma is a cancer that forms in squamous cells, which are epithelial cells that lie just beneath the outer surface of the skin. Squamous cells also line many other organs, including the stomach, intestines, lungs, bladder, and kidneys. Squamous cells look flat, like fish scales, when viewed under a microscope. Squamous cell carcinomas are sometimes called epidermThere are more than 100 types of cancer. Types of cancer are usually named for the organs or tissues where the cancers form. For example, lung cancer starts in the lung, and brain cancer starts in the brain. Cancers also may be described by the type of cell that formed them, such as an epithelial cell or a squamous cell.

You can search NCI’s website for information on specific types of cancer based on the cancer’s location in the body or by using our A to Z List of Cancers. We

also have information on childhood cancers and cancers in adolescents and young adults.

Here are some categories of cancers that begin in specific types of cells:

Carcinoma

Carcinomas are the most common type of cancer. They are formed by epithelial cells, which are the cells that cover the inside and outside surfaces of the body. There are many types of epithelial cells, which often have a column-like shape when viewed under a microscope.

Carcinomas that begin in different epithelial cell types have specific names:

Adenocarcinoma is a cancer that forms in epithelial cells that produce fluids or mucus. Tissues with this type of epithelial cell are sometimes called glandular tissues. Most cancers of the breast, colon, and prostate are adenocarcinomas.

Basal cell carcinoma is a cancer that begins in the lower or basal (base) layer of the epidermis, which is a person’s outer layer of skin.

Squamous cell carcinoma is a cancer that forms in squamous cells, which are epithelial cells that lie just beneath the outer surface of the skin. Squamous cells also line many other organs, including the stomach, intestines, lungs, bladder, and kidneys. Squamous cells look flat, like fish scales, when viewed under a microscope. Squamous cell carcinomas are sometimes called epidermoid carcinomas.

Transitional cell carcinoma is a cancer that forms in a type of epithelial tissue called transitional epithelium, or urothelium. This tissue, which is made up of many layers of epithelial cells that can get bigger and smaller, is found in the linings of the bladder, ureters, and part of the kidneys (renal pelvis), and a few other organs. Some cancers of the bladder, ureters, and kidneys are transitional cell carcinomas.oid carcinomas.

Transitional cell carcinoma is a cancer that forms in a type of epithelial tissue called transitional epithelium, or urothelium. This tissue, which is made up of many layers of epithelial cells that can get bigger and smaller, is found in the linings of the bladder, ureters, and part of the kidneys (renal pelvis), and a few other organs. Some cancers of the bladder, ureters, and kidneys are transitional cell carcinoma carcinomas.

Transitional cell carcinoma is a cancer that forms in a type of epithelial tissue called transitional epithelium, or urothelium. This tissue, which is made up of many layers of epithelial cells that can get bigger and smaller, is found in the linings of the bladder, ureters, and part of the kidneys (renal pelvis), and a few other organs. Some cancers of the bladder, ureters, and kidneys are transitional cell carcinomas.

Sarcoma

Sarcomas are cancers that form in bone and soft tissues, including muscle, fat, blood vessels, lymph vessels, and fibrous tissue (such as tendons and ligaments).

Osteosarcoma is the most common cancer of bone. The most common types of soft tissue sarcoma are leiomyosarcoma, Kaposi sarcoma, malignant fibrous histiocytoma, liposarcoma, and dermatofibrosarcoma protuberans.

Our page on soft tissue sarcoma has more information.

Leukemia

Cancers that begin in the blood-forming tissue of the bone marrow are called leukemias. These cancers do not form solid tumors. Instead, large numbers of abnormal white blood cells (leukemia cells and leukemic blast cells) build up in the blood and bone marrow, crowding out normal blood cells. The low level of normal blood cells can make it harder for the body to get oxygen to its tissues, control bleeding, or fight infections.

There are four common types of leukemia, which are grouped based on how quickly the disease gets worse (acute or chronic) and on the type of blood cell the cancer starts in (lymphoblastic or myeloid). Acute forms of leukemia grow quickly and chronic forms grow more slowly.

Our page on leukemia has more information.

Lymphoma

Lymphoma is cancer that begins in lymphocytes (T cells or B cells). These are disease-fighting white blood cells that are part of the immune system. In lymphoma, abnormal lymphocytes build up in lymph nodes and lymph vessels, as well as in other organs of the body.

There are two main types of lymphoma:

Hodgkin lymphoma – People with this disease have abnormal lymphocytes that are called Reed-Sternberg cells. These cells usually form from B cells.

Non-Hodgkin lymphoma – This is a large group of cancers that start in lymphocytes. The cancers can grow quickly or slowly and can form from B cells or T cells.

Our page on lymphoma has more information.

Multiple Myeloma

Multiple myeloma is cancer that begins in plasma cells, another type of immune cell. The abnormal plasma cells, called myeloma cells, build up in the bone marrow and form tumors in bones all through the body. Multiple myeloma is also called plasma cell myeloma and Kahler disease.

Our page on multiple myeloma and other plasma cell neoplasms has more information.

Melanoma

Melanoma is cancer that begins in cells that become melanocytes, which are specialized cells that make melanin (the pigment that gives skin its color). Most melanomas form on the skin, but melanomas can also form in other pigmented tissues, such as the eye.

Our pages on skin cancer and intraocular melanoma have more information.

Brain and Spinal Cord Tumors

There are different types of brain and spinal cord tumors. These tumors are named based on the type of cell in which they formed and where the tumor first formed in the central nervous system. For example, an astrocytic tumor begins in star-shaped brain cells called astrocytes, which help keep nerve cells healthy. Brain tumors can be benign (not cancer) or malignant (cancer).

Our pages on brain and spinal cord tumors in adults and brain and spinal cord tumors in children have more information.

Other Types of Tumors

Germ Cell Tumors

Germ cell tumors are a type of tumor that begins in the cells that give rise to sperm or eggs. These tumors can occur almost anywhere in the body and can be either benign or malignant.

Our page of cancers by body location/system includes a list of germ cell tumors with links to more information.

Neuroendocrine Tumors

Neuroendocrine tumors form from cells that release hormones into the blood in response to a signal from the nervous system. These tumors, which may make higher-than-normal amounts of hormones, can cause many different symptoms. Neuroendocrine tumors may be benign or malignant.

Our definition of neuroendocrine tumors has more information.

Carcinoid Tumors

Carcinoid tumors are a type of neuroendocrine tumor. They are slow-growing tumors that are usually found in the gastrointestinal system (most often in the rectum and small intestine). Carcinoid tumors may spread to the liver or other sites in the body, and they may secrete substances such as serotonin or prostaglandins, causing carcinoid syndrome.

2-Cardiovascular disease(امراض القلب والاوعية الدموية):

Certain diseases are diseases that live in a specific area. Diseases that live in a specific area are diseases.

- Cardiovascular diseases.
- Arrhythmia.
- Diseases of congenital heart defects.
- Cardiomyopathy.
- Inflammatory heart disease.
- Diseases of the heart valves.

Symptoms:

Symptoms of heart disease vary according to the type of disease, including:

Cardiovascular disease:

Cardiovascular diseases cause narrowing or blockage of blood vessels, as they prevent blood from reaching the heart, brain, or other parts of the body, and getting enough blood, and symptoms of cardiovascular disease can include the following:

- Chest pain (angina).
- shortness of breath.
- Numbness in the legs and arms.

Arrhythmia:

Arrhythmias include the following symptoms:

- Rapid heartbeat (feeling of a quivering chest).
- slow heartbeat
- pain in chest.
- shortness of breath.
- vertigo.
- fainting.

Congenital heart diseases:

Congenital heart defects are abnormalities that are discovered after birth and can include the following symptoms:

- Pale skin color, either gray or blue.
- Swelling in the legs, abdomen, or areas around the eyes.
- shortness of breath during feeding; Which leads to no weight gain.

Cardiomyopathy:

Cardiomyopathy is a spasm of the heart muscle in the early stages, which includes the following symptoms:

- Shortness of breath with any exertion.

- Swelling in the legs, ankles and feet.
- Flatulence with fluids.
- stress.
- Arrhythmia.
- Dizziness and fainting.

Heart diseases caused by inflammation of the membranes of the heart:

There are three types of pericarditis:

Pericarditis (inflammation of the outer membrane surrounding the heart).

Inflammation of the myocardium (the middle layer of the heart wall muscles).

Endocarditis (inflammation of the tissues that line the inner chambers of the heart, usually involving infection and one or more heart valves).

Inflammation of the membranes of the heart includes the following symptoms:

- a rise in temperature;
- shortness of breath.
- Exhaustion.
- Swelling in the legs or abdomen.
- Arrhythmia.
- dry cough
- Rash or unusual spots.

Heart valve diseases:

The heart has four valves:

The mitral valve (also known as the mitral valve), separates the left atrium from the left ventricle, and in its normal position allows blood to pass in one direction from the atrium to the ventricle.

The aortic valve (also known as the aortic valve) is located between the left ventricle and the aorta (also known as the aorta), which when opened allows blood to pass in one direction from the left ventricle to the aorta.

Tricuspid valve: It is located between the right atrium and the right ventricle, and allows blood to pass in one direction from the right atrium to the right ventricle.

Pulmonary valve: It is located between the right ventricle and the pulmonary artery, and allows blood to pass in one direction from the right ventricle to the pulmonary artery and from there to the lungs.

Symptoms of heart valve disease:

- Shortness of breath, especially when doing physical exertion.
- Chest pain, which also occurs when doing physical exertion.
- Dizziness or fainting in advanced cases. They are usually associated with valvular stenosis, especially aortic stenosis.
- Fatigue and lethargy.
- Heart palpitations.
- Cough that may be accompanied by blood, especially in cases of mitral valve disease.
- 🦶 swelling of the feet or ankles.

Medical intervention:

You should go to the emergency room if any of the symptoms of heart disease appear, which are:

- chest pain
- shortness of breath.
- fainting.

Causes and risk factors for heart disease:

Risk factors that lead to heart disease include:

- getting old.
- Family history of heart disease.
- smoking.
- Malnutrition.

- Hypertension.
- High cholesterol.
- diabetes.
- Obesity.
- lack of physical activity
- Constant stress.

Complications of heart disease:

- heart failure
- heart attack
- brain attack.
- Aneurysm.
- Sudden cardiac arrest.

Diagnosis of heart disease:

Diagnostic tests for heart disease include:

- blood tests
- X ray
- Electrocardiogram (E.C.G)
- Holter monitoring and monitoring of the heart.
- Echocardiography.
- Transesophageal ultrasound if echocardiogram findings are not clear.
- Cardiac catheterization.
- Biopsy.
- Computed tomography (CT).
- Magnetic resonance imaging (MRI).

Heart disease treatment:

Heart disease treatment includes:

- Adopt a healthy lifestyle (healthy food and physical activity).

- Pharmacological treatment.
- Surgical treatment.

Prevention of heart disease:

Certain types of heart disease, such as congenital heart defects, cannot be prevented. However, changes in lifestyle and converting it into a healthy one help improve the condition of some patients with heart disease, and may also help prevent many types of heart disease, and these changes include:

- Stay away from smoking.
- Maintaining normal levels of blood pressure, cholesterol and diabetes.
- Make sure to do physical activity.
- Ensure a healthy diet.
- Reducing and controlling stress levels.

3-Diabetes(مرض السكري):

Diabetes refers to a group of diseases that affect how the body uses blood sugar (glucose). Glucose is an important source of energy for the cells that make up muscles and tissues. It is also the main source of energy for the brain.

The main cause of diabetes varies according to its type. But no matter what type of diabetes you have, it can lead to an increase in your blood sugar level. Thus, an excessive increase in blood sugar level may lead to serious health problems.

Chronic diabetes includes both types 1 and type 2 diabetes. Treatable diabetes conditions include prediabetes and gestational diabetes. Prediabetes occurs when blood sugar levels are higher than normal. However, this increase is not large enough to be diagnosed as diabetes mellitus. Prediabetes can lead to diabetes unless steps are taken to prevent it. Gestational diabetes occurs during pregnancy, but it goes away after delivery**.**

Symptoms:

Diabetes symptoms depend on how high your blood sugar level is. Some people may not have symptoms, especially if they have prediabetes, gestational diabetes, or type 2 diabetes. In the case of type 1 diabetes, symptoms usually appear quickly and are more severe.

Symptoms of type 1 and type 2 diabetes:

- Feeling more thirsty than usual.
- frequent urination.
- Unintentional weight loss.
- Presence of ketones in the urine. Ketones are a by-product of the breakdown of muscle and fat that occurs when there is not enough insulin in the body.
- Feeling tired and weak.
- Easily irritable or other mood swings.
- blurry vision
- Slow healing of sores.
- Many infections, such as gum, skin and vaginal infections.

Type 1 diabetes can start at any age. But it often appears in childhood or adolescence. As for type 2 diabetes, which is the most common type, it may begin at any age. Type 2 diabetes is most common among people over the age of 40. But cases of type 2 diabetes in children are increasing.

When do you see a doctor?

If you think you or your child may have diabetes. If you notice any of the possible symptoms of diabetes, contact your doctor. The earlier a condition is diagnosed, the sooner treatment can begin.

If you have already been diagnosed with diabetes. After you know your diagnosis, you'll need close medical follow-up until your blood sugar levels stabilize.

the reasons

To understand diabetes, it's important to understand how the body normally uses glucose.

How insulin works

Insulin is a hormone produced by a gland located behind and below the stomach (the pancreas).

The pancreas secretes insulin into the bloodstream.

Insulin diffuses to allow sugar to enter the cells.

Insulin lowers the amount of sugar in the bloodstream.

As the blood sugar level decreases, insulin secretion from the pancreas also decreases.

The role of glucose

Glucose, or sugar, is a major source of energy supply to the cells that make up muscles and other tissues.

Glucose comes from two main sources: food and the liver.

Sugar is absorbed into the bloodstream; Where it enters the cells with the help of insulin.

The liver stores and produces glucose.

When glucose levels are low, such as when you haven't eaten for a long time, the liver breaks down stored glycogen and turns it into glucose. This keeps the glucose level within the normal range.

The exact cause of most types of diabetes is not yet known. In all cases, sugar builds up in the bloodstream. This is due to the pancreas not producing enough insulin. Type 1 and type 2 diabetes may be caused by a combination of genetic or environmental factors.

risk factors:

The risk factors for developing diabetes depend on its type. Family history plays a role in all types. Environmental factors and geography can also increase the risk of developing type 1 diabetes.

Family members of people with type 1 diabetes are sometimes tested for the presence of anti-diabetic immune cells (auto antibodies). If you have these auto antibodies, then you are at higher risk of developing type 1 diabetes. But not everyone with these auto-antibodies develops diabetes.

Being of a certain race or ethnicity can also increase the risk of developing type 2 diabetes. Some people, including blacks, Hispanics, American Indians and Asian Americans, are more susceptible to it, although the reason for this is not clear.

Prediabetes, type 2 diabetes and gestational diabetes are also common among people who are overweight or obese.

complications

Long-term complications of diabetes develop gradually. The longer you have diabetes — and the lower your blood sugar level — the higher your risk of complications. Ultimately, complications from diabetes can be disabling or even life-threatening. In fact, prediabetes can lead to type 2 diabetes. Possible complications include:

Cardiovascular disease. Diabetes greatly increases the risk of many heart problems. These can include coronary artery disease with chest pain (angina), heart attack, stroke, and narrowing (hardening) of the arteries. If you have diabetes, you are more likely to have heart disease or stroke.

Nerve damage caused by diabetes (diabetic neuropathy). Excess sugar damages the walls of the small blood vessels (capillaries) that feed the nerves, especially in the legs. This may cause tingling, numbness, burning or pain that usually begins at the tips of the toes or fingers and gradually spreads upward.

Damage to the nerves associated with digestion can cause problems such as nausea, vomiting, diarrhea or constipation. For men, this may lead to erectile dysfunction.

Kidney damage caused by diabetes (diabetic nephropathy). The kidneys contain millions of tiny blood vessel clusters (glomeruli) that filter waste products from the blood. Diabetes can damage the tiny filtering system in the kidneys.

Eye damage caused by diabetes (diabetic retinopathy). Diabetes can damage the blood vessels in the eyes. This can lead to blindness.

foot damage. Nerve damage in the foot or poor blood flow to the foot increases the risk of many complications in the feet.

Diseases of the skin and mouth. Diabetes may make you more susceptible to skin problems, including bacterial and fungal infections.

Hearing impairment. Hearing problems are more common among people with diabetes.

Alzheimer's disease. Type 2 diabetes may increase the risk of dementia, such as Alzheimer's disease.

Diabetes related depression. Symptoms of depression are common in people with type 1 and type 2 diabetes.

Complications of gestational diabetes

Most women with gestational diabetes deliver healthy babies. But high, untreated blood sugar levels can cause problems for you and your baby.

Complications may arise for the baby as a result of you having gestational diabetes, including the following:

overgrowth Excess glucose can pass through the placenta. This extra glucose stimulates your baby's pancreas to produce more insulin. This may increase your baby's growth too much. It causes obstructed labor and sometimes the need for a caesarean section.

Low blood sugar. In some cases, babies of mothers with gestational diabetes develop low blood sugar soon after birth. This is due to their higher insulin production.

Type 2 diabetes at a later age. Babies of mothers with gestational diabetes are at greater risk of developing obesity and type 2 diabetes later in life.

Death. Untreated gestational diabetes can lead to infant death, either before or shortly after birth.

Complications may also appear for the mother as a result of gestational diabetes, including the following:

Pre-eclampsia. Symptoms of this condition include high blood pressure, excessive amounts of protein in the urine, and swelling of the legs and feet.

4-**c**hronic kidney disease(مرض الكلي المزمنة):

Chronic kidney disease, also called chronic kidney failure, involves the gradual cessation of kidney function. The kidneys filter waste and extra fluid from the blood, which can then be excreted in the urine. Advanced chronic kidney disease can cause dangerous levels of fluid, electrolytes and wastes to build up in the body.

In the advanced stages of chronic kidney disease, you may have few signs or symptoms. You may not realize you have kidney disease until after the condition has progressed.

Treatment for chronic kidney disease focuses on slowing the progression of kidney damage, usually by controlling its cause. However, even controlling the cause may not prevent kidney damage from getting worse. Chronic kidney disease may develop into renal failure in its last stage, which is the stage that may cause death if artificial dialysis or kidney transplantation is not performed.

symptoms

Signs and symptoms of chronic kidney disease appear over time if kidney damage slowly progresses. Cessation of kidney function may cause fluid buildup, body waste, or electrolyte problems. Depending on its severity, impaired kidney function can cause:

- Nausea
- vomiting
- Anorexia
- Fatigue and weakness
- sleep problems
- Increased or decreased urine
- Decreased mental activity
- Painful muscle contractions
- Swelling of the feet and ankles
- Dry skin with itching
- High blood pressure (hypertension) that is difficult to control
- shortness of breath; When fluid builds up in the lungs
- Chest pain, if fluid builds up around the lining of the heart

Signs and symptoms of kidney disease are often not limited to it. This means that they may be the result of other diseases. Because the kidneys can perform so many functions, signs and symptoms may not appear until after irreversible damage has occurred.

When should you see a doctor?

Make an appointment with your doctor if you develop any signs or symptoms of kidney disease. Early detection may help prevent kidney disease from progressing to kidney failure.

If you have a medical condition that increases your risk of kidney disease, your doctor may monitor your blood pressure and kidney function with urine and blood tests during your office visits. Ask your doctor whether these tests are necessary for you.

Chronic kidney failure occurs when a disease or condition impairs kidney function. This leads to worsening damage to the kidneys over several months or years.

Diseases and conditions that cause chronic kidney failure include:

Diabetes mellitus type 1 or 2

Hypertension

glomerulonephritis, which is inflammation of the filtering units in the kidneys (glomeruli)

Interstitial nephritis, which is an inflammation of the kidney tubules and surrounding structures

Polycystic kidney disease or other hereditary kidney disease

Prolonged blockage of the urinary tract, due to conditions such as an enlarged prostate, kidney stones, and some types of cancer

Vesicoureteral reflux, a condition that causes urine to back up into the kidneys.

Recurrent kidney infection, also called pyelonephritis

risk factors

Factors that may increase your risk of chronic kidney disease include:

- diabetic
- Hypertension
- Cardiovascular disease
- smoking
- Obesity
- Being black, American, or Asian American
- Having a family history of kidney disease
- anomalies of the structure of the kidneys;
- getting old
- Too much medication that may harm the kidneys

complications

Chronic kidney disease can affect almost every part of the body. Its potential complications include:

Fluid retention, which may result in swelling of the arms and legs, high blood pressure, or fluid buildup in the lungs (pulmonary edema)

Sudden increase in potassium levels in the blood (hyperkalemia), which can impair heart function and may be life-threatening

anemia

heart disease

Weak bones and an increased risk of bone fractures

Decreased sexual desire, erectile dysfunction, or decreased fertility

Central nervous system damage, which may result in difficulty concentrating, personality changes, or seizures

Decreased immune response, which makes you more susceptible to infection

Pericarditis, which is inflammation of the sac-like membrane that envelops your heart (pericardium)

Pregnancy complications that threaten the life of the mother and fetus

Irreversible damage to the kidneys (end-stage renal disease), which eventually requires either dialysis or a kidney transplant for survival

protection

To reduce the risk of kidney disease:

Follow directions for over-the-counter medications. Follow the directions on the package when using over-the-counter pain relievers, such as aspirin, ibuprofen (Advil, Motrin IB, others) and acetaminophen (Tylenol, others). Taking excessive amounts of pain relievers for a long time can lead to kidney damage.

Maintain a healthy weight. If your weight is healthy, maintain it with physical activity most days of the week. And if you want to lose weight, talk to your doctor about healthy weight-loss strategies.

stop smoking. Smoking cigarettes can damage your kidneys, and if they are damaged, it exacerbates their damage. If you smoke, talk to your doctor about strategies to stop smoking. Support groups, counseling, and medication can help you quit smoking.

Treat your medical conditions with the help of your doctor. If you have diseases or conditions that increase your risk of developing kidney disease, work with your doctor to get them under control. Consult your doctor about tests for signs of kidney damage.

5-allergy(الحساسية):

Allergy is the reaction of the immune system to unfamiliar substances, such as: pollen grains, and venom from a bee sting or animal dander.

The immune system produces proteins called antibodies that protect the body from unwanted foreign bodies that may invade the body and cause diseases or infections. It is not, which leads to the release of histamine and other substances that cause allergy symptoms.

Allergies may cause different symptoms, as they can appear on the skin, in the sinuses, in the respiratory airways, or in the digestive system, where the severity and degree of sensitivity differ from one person to another, as it can cause an allergic shock, which is an emergency that may It causes death, and allergies cannot be completely cured, but there are some treatments that help relieve allergy symptoms.

Allergy symptoms

Allergy symptoms differ according to the allergy itself from one person to another. Allergy symptoms may appear in the respiratory airways, in the sinuses and nasal passages, in the skin, or in the digestive system.

In most cases, an allergic reaction is a source of inconvenience and distress, but allergy symptoms are minor. As for reactions in the case of severe allergies, they may be more serious, because they may

affect many organs and systems in the body. The following are the most prominent types of allergies and their symptoms:

1. Allergic rhinitis

Symptoms include:

- Nasal congestion and runny nose.
- itching
- Watering or swelling in the eyes.

2. Atopic Dermatitis

Symptoms include:

- Itching in the skin.
- skin redness
- peeling of the skin

3. Food Allergy

Symptoms include:

- A feeling of pinching in the mouth.
- Swelling of the lips, tongue, face or throat.
- urticaria;
- anaphylaxis

4. Insect bite

Symptoms include:

- Swelling in a wide area around the sting site.
- Itching or hives all over the body.

- Cough.
- contractions in the chest;
- shortness of breath
- anaphylaxis

5. Drug Allergy

Symptoms include:

- urticaria;
- itching
- Skin rash.
- Swelling in the face.
- Cracking and whistling at the time of breathing.
- anaphylaxis

6. Anaphylaxis

Some types of allergies, including food allergies and allergies to insect stings, may cause a dangerous phenomenon known as anaphylaxis. This allergy may end in death and requires immediate medical treatment. This allergy affects many organs and systems of the body and may cause shock.

Signs and symptoms of anaphylaxis include:

- He passed out.
- dizziness;
- severe shortness of breath
- Rapid and weak palpitations.
- Skin rash.

- Nausea and vomiting.

Swelling of the airways that may stop breathing completely.

If an injection of adrenaline is available for self-injection, it should be used immediately, and even if the symptoms improve after the adrenaline injection, one should go to the emergency department to ensure that the symptoms do not reappear again when the effect of the injection ends.

Allergy causes and risk factors

The following is an explanation of the causes of allergies and the most affected people:

Allergic causes

Allergens include the following:

Pollen, animal dander, dust mites, and mold.

Certain foods, especially nuts, tree nuts, wheat, soybeans, fish, shellfish, eggs, and milk.

Venom from insects such as bee stings or wasp stings.

Some medicines, especially penicillin or some penicillin-derived antibiotics.

Natural rubber or other materials that, in contact with it, can trigger allergic reactions in the skin.

The most susceptible people

The risk of developing allergies increases in people who belong to one of the following groups:

Have a family history of allergies or asthma, as the risk of developing allergies increases among relatives of patients who suffer from asthma or allergies, such as: hay fever, urticaria, or eczema.

Children: Although allergies may appear at any stage of life, children are more likely than adults to develop allergies, and yet in many cases the allergy disappears and then returns later in the future.

The possibility of developing allergies is greater in patients with asthma, and people who suffer from a certain type of allergy are likely to show sensitivity to other substances as well.

Allergic complications

Allergies increase the risk of other health problems, including:

Anaphylactic shock: People who suffer from severe allergic reactions are more likely to develop anaphylactic shock, which is an allergic reaction.

Other Allergies: People with one type of allergy are more likely to have other types of allergies.

Asthma: People with asthma are more likely to have allergies.

Infection with various diseases: Allergies cause eczema, sinusitis, ear or lung infections

Fungal infections: The risk of fungal infections, known as fungal sinusitis, increases in people who suffer from allergies.

Allergy diagnosis

To determine if someone has a particular type of allergy, a doctor will:

Asks detailed questions about signs and symptoms.

Perform a physical examination.

Detailed documentation of symptoms and causative factors is required.

The doctor may also recommend one of the following examinations:

Skin test: In this test, the skin is pricked and exposed to small amounts of a protein found in substances that cause allergies (Allergen). If an allergy is present, swelling will develop at the test site.

Blood test: The amount of allergy-causing antibodies in the blood, known as immunoglobulins, is measured, and it is checked if the sample contains allergy indicators.

Allergy treatment

Allergy treatment includes the following:

Avoid irritants.

Use of medications to relieve symptoms.

Take immunotherapy.

Emergency use of adrenaline.

Allergy prevention

Allergy prevention depends on the type of allergy. General guidelines for allergy prevention include the following recommendations:

1. Avoid common allergens

The substances that cause known and common allergies usually include: certain foods, some insects, and some medicines, and there are certain symptoms of allergy that appear and are exacerbated by extreme heat or psychological stress.

2. Put on a medical alert bracelet

A medical alert bracelet should be worn for people who have previously had a severe and severe allergic reaction.

Alternative therapies

Alternative treatments only help relieve allergy symptoms. A doctor should be consulted before use to ensure the general safety and effectiveness of the treatment prescribed by the doctor. Possible alternative medical treatments include the following:

- Aram (Butterbur).
- Marigolds (Calendula).
- Golden Seal.
- Nettle.
- Sitt al-Hassan (Belladonna).
- Bromelain extracted from pineapple (Bromelain).
- Probiotics
- Acupuncture.
- hypnosis.

6-sniffles(الزكام):

The common cold or cold is a non-threatening illness caused by several viruses.

Transmission of the virus from a sick person to a healthy person

Common cold viruses are transmitted by direct touch or by droplets, and direct transmission of the virus is the most effective mechanism for rhinoviruses.

Transmission of the virus from one person to another is related to the amount of time that the person spends next to the sick person and the amount of viruses that the patient has.

Touch transmission is the primary method of transmission. The virus is transmitted in contaminated saliva secretions from the patient to another person through the hands and from there to the nose and eyes.

The virus can live for two hours on the skin, and it has been shown to be present in 40% - 90% of patients with the common cold. Nasal viruses are also transmitted by droplets.

Cold symptoms

The incubation time for the virus, from infection to onset of cold symptoms, ranges from 24 to 72 hours.

Symptoms vary from person to person and include:

Runny nose and mucous congestion in the nose

- stuffy nose
- sneeze
- Sore throat.

Mostly, the sore throat goes away quickly, while gonorrhea and congestion remain the main source of complaint for patients, especially in the second and third days of the onset of the disease. On the fourth and fifth days, the cough becomes the first bother, while the other symptoms subside.

The cold usually lasts between 3-7 days, although it lasts for about another two weeks in about a quarter of patients.

Colds may be more difficult and severe in children, in people with chronic diseases, in people with a defect in the functioning of the immune system and in those who suffer from malnutrition.

Causes and risk factors for the common cold

There are several viruses that cause the common cold.

Cold-causing viruses

The following viruses cause the common cold:

Rhinoviruses: cause 10%-40% of colds

Respiratory syncytial virus (RSV - Respiratory syncytial virus): This type of virus causes 20% of disease cases.

Coronaviruses: Coronaviruses cause 10% of cases of the common cold.

Viruses cause symptoms similar to the common cold

Some viruses cause symptoms similar to the common cold, but are usually accompanied by pneumonia or a more severe illness, including:

- Influenza viruses.
- Adenoviruses.
- Parainfluenza.

Some viruses also cause symptoms similar to those of the common cold, but they do not usually lead to the appearance of characteristic symptoms, and they are accompanied by a high temperature only, including:

Echovirus.

Coxsackie virus

Differentiate between types of viruses

It is difficult to identify and distinguish the causative virus based solely on symptoms, although parainfluenza affects children and respiratory syncytial virus (RSV) causes mild colds.

Most respiratory viruses that cause a cold can lead to a recurrence of the disease when exposed to the virus again, but the disease is less severe in this case.

Rhinoviruses and parainfluenzae cause colds in the fall and at the end of spring, while adenoviruses, coronaviruses, and respiratory syncytial viruses cause the disease to appear in the winter and spring, while the Echoviruses and coxsackieviruses cause colds in the summer.

Respiratory syncytial virus is a very contagious virus, and infection with this virus usually occurs through droplets, although the virus survives for about an hour at a temperature of 37 degrees Celsius.

In 90% of patients who develop symptoms, the virus is not found in saliva, which leads to the belief that the virus is not transmitted through kissing.

Risk factors for the common cold

Risk factors that increase the risk of catching a cold include:

babies.

Winter season.

smoking.

Weakened immunity.

Cold complications

Possible complications of a cold include:

Sinusitis

Sinusitis occurs due to germs, and it occurs in 0.5% - 2.5% of adults after a cold, and it has been shown in computerized imaging tests that this inflammation appears in 39% of people with a cold after a week.

Characteristic symptoms of infection: purulent runny nose, headache, and persistent fever.

Inflammation of the lungs

Primarily caused by respiratory syncytial virus infection.

Exacerbation of asthma

About 40% of asthma attacks are caused by a cold.

Diagnosis of the common cold

Most cold patients, the doctor can diagnose them based on the symptoms, but if the doctor suspects that there is a bacterial infection, he takes a chest X-ray to ensure that there is no infection.

Cold treatment

Treatment of the common cold is generally aimed at relieving only the signs and symptoms of the disease.

Cold treatment includes the following medications:

Antihistamines can relieve cough and runny nose.

Medicines to suppress cough.

Medicines to relieve mucous congestion in the nose, usually in the form of drops.

It has been shown in a number of researches that the treatment of colds with zinc tablets with vitamin C, and with herbs, can be useful and effective for treating cold symptoms.

Antibiotics are not needed, as they have not been shown to be effective in treating the common cold.

Antiviral therapy, combined with or without anti-inflammatory drugs, has been shown to be effective in relieving the patient's symptoms and even shortening the duration of the disease.

Cold prevention

Ways to prevent a cold:

Wash hands well with soap and water.

Avoid touching the face and eyes if hands are not washed.

Sterilize surfaces regularly.

Strengthen immunity by getting enough sleep and playing sports.

7- Sore Throat(التهاب الحلق):

Sore throat is almost one of the most common cases in doctors' offices, according to statistics in the US states, more than 12 million annual visits to the doctor were due to sore throats.

Sore throat symptoms

Symptoms of sore throat caused by tonsillitis are often:

Pain in the throat and pharynx area.

body's temperature raising.

headache

The appearance of light spots in the throat and tonsils.

Pain when swallowing.

Redness and swelling of the tonsils.

Swelling and pain in the jaw and lymph nodes.

Abdominal pain, especially in children.

Vomiting, especially in children.

Causes and risk factors for sore throat

Sore throat may occur for several factors, and it appears as a primary symptom in many difficult diseases related to the upper respiratory tract and inflammation of the esophagus. The following are the causes of the disease and the risk factors associated with it:

1. The most important causes of sore throat

Sore throats may be caused by:

viruses

Doctors believe that viruses are the primary factor responsible for the majority of sore throats.

As it is known, there is no drug for the treatment of viral sore throat, yet statistics indicate that 60% of infected people may get antibiotic treatment, although a large part of them will not be effective and will not affect anything on the course of the disease.

bacteria

The most common bacteria that can cause sore throats are Streptococcus and Arcanobacterium haemolyticum, especially in adolescents, and are sometimes associated with a mild red rash.

tonsillitis

The tonsils are located in the back of the pharynx, and when this area is infected with a virus or germ, it becomes irritable, and the tonsils swell larger than their normal size. This symptom is accompanied by sore throat, fever, and swallowing difficulties.

different treatments

Sore throats may appear in certain cases due to antibiotic treatment, chemotherapy, or any drug that affects the immune system.

A sore throat that lasts more than two weeks alternately may indicate the presence of a chronic disease.

2. Risk factors for a sore throat

There are several factors that may be behind a sore throat, and they include the following:

smoking.

Inhaling polluted air.

Breathing dry air through the mouth.

Various allergies include dust.

Sore throat complications

Among the most important complications that may occur when sore throat symptoms worsen:

Epiglottitis.

Abscess around the tonsils.

Inflammation of the submandibular space.

Posterior pharyngeal compartment inflammation.

The appearance of initial symptoms of AIDS.

Rheumatic fever.

Diagnosing a sore throat

In some cases, it is not possible to definitively differentiate between viral sore throat and bacterial sore throat based on clinical symptoms only, and then a throat swab must be taken and analyzed to find out the cause.

Sore throat treatment

Sore throat is recovered automatically without medical intervention after the disease has taken its sufficient time, but if the sore throat is accompanied by a high temperature, here it is preferable to see and intervene with the doctor, and the treatment is in the following ways:

1. Treat the symptoms of a sore throat

The treatment of sore throat comes with the aim of relieving the symptoms of the disease such as pain, difficulty in swallowing, headache, high temperature, etc. Therefore, the preferred treatment for sore throat is:

Gargle with hot, salty water: It helps sterilize the affected area.

Using sucking tablets to relieve pain: The process of sucking tablets raises the concentration of saliva in the mouth, and helps moisturize the painful area.

Steam device: Using this device may relieve symptoms, especially in cases of sore throat caused by dry air and mouth breathing.

Spray: These sprays moisturize the mouth and contain pain relievers.

Take medications: Oral pain relievers.

In some difficult cases in which the sick person did not respond to any of the previously described treatment and still suffers from problems and difficulty swallowing, doctors prescribe the possibility of treatment with glucocorticoids, which would help the patient overcome the difficulty of the symptoms of the disease.

2. Home remedies for sore throat

You can use the following household ingredients that may help relieve and treat a sore throat:

Lemon: It helps get rid of mucus stuck in the throat area. You can drink fresh lemon juice with honey.

Apple cider vinegar: It has antibacterial properties that help get rid of sore throats.

Cinnamon: Cinnamon has been used since ancient times to treat sore throats caused by the common cold.

Garlic: It has antiseptic and antibacterial properties that help treat sore throats. Eat a piece of raw garlic once a day.

Honey: It has antibacterial properties that work to combat the cause of sore throat. Add it to a cup of tea or lemonade.

[video|236|Relieve sore throat pain in simple ways

Sore throat prevention

Some ways to prevent sore throat:

Keep your hands well washed.

Sit away from infected people.

Drink plenty of fluids.

Eat healthy.

8-الربو عند الاطفال – Asthma:

Asthma is one of the diseases that affect the bronchial tubes that deliver air to and from the lungs, and it usually appears in children with the possibility of its appearance at any other age.

The mechanism of disease development differs from one person to another, as bouts of shortness of breath disappear after the end of childhood in most people, while it continues in another group for long periods.

In the recent period, there has been a significant increase in the number of asthma patients, and this may be due to the increase in the factors stimulating the occurrence of the disease, such as the high quality of hygiene and sanitation (Sanitation), and the decrease in the number of children in the family.

Elderly people are rarely affected, and in such a case, the causative agent of asthma cannot be identified, and the patient needs large amounts of medication to control the condition.

Symptoms of asthma in children

Asthma symptoms include:

Severe respiratory attacks that increase during the night.

Bad cough.

Increased breathing rate.

Difficulty breathing air.

Cyanosis due to lack of oxygen.

Causes and risk factors for asthma in children

Asthma occurs in children due to infection of the respiratory system with some types of viruses, in addition to the patient’s exposure to some allergens, especially during certain seasons such as autumn and spring.

Triggers of asthma

There are many factors that increase the risk of asthma attacks, as follows:

Great physical effort.

Exposure to cold air.

Exposure to certain allergens, such as: mold, animal dander, tree pollen, grass, and some types of medicines.

Complications of asthma in children

Asthma in children may cause many complications, which include the following:

Influencing the type of activities that the patient can engage in.

Decreased sleep quality.

Permanent shortness of breath.

Visit the emergency department frequently in cases of an acute attack.

Exposure to long-term side effects of medications that are used to stabilize the patient's condition.

Diagnosis of asthma in children

Asthma is diagnosed by performing an examination of the performance of the lungs (Spirometry), through which the amount of oxygen is known during

inhalation and exhalation, and some bronchodilator drugs are given, which should improve the patient's condition.

In some cases, it is difficult to diagnose the disease in children, especially when there is wheezing, as it is one of the common things in children in general, and it is difficult to conduct an examination of the performance of the lungs to confirm that the child has the disease.

Treating asthma in children

Asthma in children can be treated through the following:

Anti-inflammatories

It includes inhaled steroids, which reduce inflammation in the area and reduce the patient's risk of severe seizures. The use of this form of treatment helps to reduce the side effects associated with oral steroids.

bronchodilators;

This type of treatment works to expand the bronchi, which relieves the condition within seconds to a few minutes and for a period of time ranging from 4-12 hours.

Other treatments

They include the following:

leukotriene levels.

Immunotherapy.

Vital medicines.

Prevention of asthma in children

In fact, there are no clear ways in which asthma can be avoided, but some things can be followed that help prevent attacks, such as the following:

Commitment to taking the medicines prescribed by the doctor in the correct doses and times.

Identify the causes of asthma in the patient and try to avoid them as much as possible.

Alert and respond quickly when a seizure occurs to avoid aggravation.

Monitor breathing continuously.

9-الربو – Asthma:

Asthma is a chronic disease that affects humans as a result of inflammation and narrowing of the airways in the lungs or bronchi, which reduces or prevents air flow to these bronchi, causing repeated bouts of shortness of breath that are accompanied by wheezing in the chest area and some other symptoms.

Where the muscle that surrounds the airways contracts and a large amount of phlegm accumulates in the airways, which leads to blockage, so that the symptoms of asthma range according to this between mild wheezing and wheezing when breathing, and asthma attacks that may endanger life, knowing that children are more affected by the disease.

There is no cure for asthma, but it is possible to control its symptoms by following various methods.

If asthma is not under monitoring and follow-up, it may cause frequent and long absences from school or work, which may reduce the level of

productivity. The severity of asthma changes with time in most people, so it is necessary to undergo permanent health monitoring and follow-up, monitoring of indicators and symptoms, and the appropriateness of asthma treatment as needed.

Asthma scores

Asthma is divided into 4 general categories:

Type of asthma signs and symptoms

Mild, intermittent mild symptoms from two days a week to two nights a month

Mild persistent symptoms more than twice a week, but not more than once a day.

Fixed moderate symptoms once a day and more than one night a week.

Constant severe symptoms throughout the day most days often at night.

Asthma symptoms

Asthma symptoms range from mild to severe and differ from one person to another. Mild symptoms may appear, such as wheezing and rattling while breathing. Asthma attacks may occur from time to time. Asthma symptoms may appear mainly at night or only when physical effort is exerted.

As for between attacks, the patient may be in good condition and not face any respiratory difficulties. Signs of asthma can be explained as follows:

1. Symptoms and signs of asthma

Include the following:

shortness of breath.

Chest contractions or pains.

Sleep problems due to shortness of breath.

Coughing, wheezing, or wheezing.

Coughing spells or wheezing while breathing that gets worse as a result of infection of the airways with a virus, in cases of cold and flu, for example.

2. Signs of exacerbation of asthma

These signs include the following:

Exacerbation of symptoms: an increase in the severity and frequency of disease symptoms.

Decrease in maximum airflow rates: measured by the maximum expiratory rate, a simple device designed to measure the level of lung function.

An increased need to use bronchodilators: These are medications that open the airways by relaxing the surrounding muscles.

It is necessary for the asthmatic patient to be under medical supervision on a permanent basis, to check if there is a need to increase the drug dose and the timing of its increase, or to take other measures to treat symptoms.

If the asthma continues to worsen, there may sometimes be a need to go to the hospital. The doctor can help diagnose the signs and symptoms that require going to the emergency room in the hospital, so that the patient is aware of the cases in which he should go to receive help.

Causes and risk factors for asthma

It is not clear why some people develop asthma while others do not, and it is likely that asthma is thought to be the result of a combination of several environmental and genetic factors.

Factors that trigger asthma differ from one person to another, as exposure to a large number of substances that cause hypersensitivity can trigger signs and symptoms of asthma, including:

Airborne allergens, such as flower pollen, animal scales, mold, dust mites, and cockroaches.

Inflammation of the airways, such as: in the common cold.

physical activity

cold air.

Air pollutants, such as: smoke.

Certain medicines including β-blockers, aspirin, and other non-steroidal anti-inflammatory drugs.

Extreme agitation and tension.

Preservatives added to some food products.

Gastroesophageal reflux disease, a condition in which acid from the stomach backs up into the throat.

menstruation in some women

Allergic reaction to types of food, such as: pistachio.

Asthma is a widespread disease that affects millions of adults and children, and is diagnosed annually in increasing numbers of people, but the reason for this is still unknown.

Asthma risk factors

There are a number of factors that are known to increase the risk of developing asthma, including the following:

Previous cases of asthma in the family.

Recurrent infections in the airway during childhood.

Passive smoking.

Living in a civilian area, especially if the air pollution is high.

Exposure to factors that may cause disease in the workplace, such as: chemicals in factories, materials used in agriculture, and materials used in hairdressing

The birth of a baby with a small birth weight or obesity.

Asthma complications

Asthma can cause many complications, including:

Go to the emergency room and hospitalization for acute asthma treatment.

Permanent narrowing of the airways.

Side effects from using certain medications to treat severe asthma for a long time.

Asthma diagnosis

It is sometimes difficult to diagnose asthma, and it can sometimes be difficult to distinguish between asthma and wheezing bronchitis from pneumonia or another disease of the airway in response to certain stimuli.

To rule out other possible illnesses, the doctor does a physical exam and asks questions about signs, symptoms, and other health problems. Sometimes a lung function test is done to determine the amount of air that goes in and out

during breathing in order to diagnose asthma. Lung tests include the following :

Lungs tests

Lung function tests include:

1. Check the spirometer

This examination tests the extent of constriction of the airways

It measures the amount of air that can be exhaled after a deep inhalation and at what speed the exhalation takes place.

2. Peak flow meter

A peak flow meter is a simple device that can be used at home and detect minor changes that may occur even before symptoms are felt. If the result is less than normal, this is an indication that asthma will appear soon. The doctor provides instructions on how to follow up on low results and deal with them.

Lung function tests are often conducted before and after using a bronchodilator to open the airways. If the functioning of the lungs of the person being examined improves as a result of the expanded use, it is likely that he has asthma.

Additional tests for the diagnosis of asthma

A group of other tests can contribute to the diagnosis of asthma:

1. Metacholine Challenge

A patient with asthma inhaled a substance known to trigger asthma called metacholine, as it generates slight pressure in the airways, and a positive result in a metacholine examination confirms the diagnosis of asthma. Such an examination is performed if the lung function tests show normal results.

2. Nitric oxide test

It is an examination that is sometimes conducted to diagnose and monitor asthma. It measures the amount of gas called nitric oxide in the breath. In the event that there is inflammation in the airways, and this is a sign of asthma, the level of nitric oxide is higher than normal, and this examination is not common.

Classification of asthma

In order to determine the severity and severity of asthma, the doctor, in addition to a physical examination and laboratory tests, evaluates the person's answers to questions about symptoms.

Determining the degree of severity of asthma helps the doctor to choose the most effective treatment for asthma, given that the degree of severity of asthma often changes over time, which therefore requires the appropriateness of asthma treatment.

Asthma treatment

Asthma treatment often includes avoiding triggers and taking one or more medications. Asthma treatment varies from person to person, and most people with persistent asthma use a combination of long-term medications to control their asthma and quick-relief medications taken by inhaler.

Since asthma changes over time, there is a need for medical follow-up to monitor symptoms and to know the adjustments and changes that should be made in the treatment regimen to always remain appropriate to the disease.

Asthma treatment with medications includes long-term medications aimed at controlling asthma, medications for rapid relief, and medications to treat antigen hypersensitivity (Allergy). It is worth noting that choosing the type of medication is determined by age and symptoms, as follows:

Medications for the treatment of chronic asthma

They are mostly daily use medications, and their types include:

1. Inhaling corticosteroids with a nebulizer

The aim of using this drug is to reduce the risk and frequency of attacks and long-term damage to asthma, but it should be noted that this drug does not relieve the symptoms of the disease at the time of an acute attack.

2. Beta-agonists

Such as salmeterol, where this type of medicine is used to widen narrow airways and reduce the possibility of severe asthma attacks.

3. Leukotriene

Such as montelukast, which is a drug that inhibits certain substances that cause inflammation in the airways, which are called leukotrienes.

4. Medications for exposure to asthma triggers

Such as Cromolyn and Nedocromil, where these drugs are used to reduce the risk of an asthma attack when exercising or being exposed to asthma triggers.

5. Theophylline

This medicine helps in dilating the airways in order to treat and relieve asthma symptoms.

6. Medications for quick relief

Also called rescue and emergency medications, these medications are used for rapid relief as needed for immediate relief of symptoms, such as in the event of an asthma attack, before exercise, or if recommended by a doctor.

Rapid treatment drugs for asthma

Include the following:

Short-term beta-2 agonists, such as salbutamol.

Ipratropium.

Corticosteroids to be swallowed or injected into a vein.

Allergic asthma treatment

Includes the following:

Treating asthma with a vaccine.

Monoclonal antibody of the type IgE.

Ways to control asthma

Include the following:

Avoid triggers and monitor symptoms.

Take long-term and consistent medications to prevent asthma attacks.

Take medications for the short term to treat asthma in emergency cases, if they arise.

Asthma prevention

Through cooperation and joint work with the doctor, it is possible to develop a gradual program of action that facilitates the confrontation of asthma and the prevention of asthma attacks, and includes the following:

Writing an action program for asthma treatment.

Identify the factors that trigger asthma and avoid them.

Breath control.

Recognizing seizures and treating them at an early stage.

Alternative therapies

Asthma cannot be treated with herbs.

10-Chronic Coughالسعال المزمن:

A chronic cough is a cough that lasts for eight weeks or more, is very annoying, and may cause aversion by parents and colleagues at work, and prevents the ability to sleep at night, and is one of the most common complaints that people bring to doctors.

Cough is one of the most common symptoms in people with gastroesophageal reflux disease (GERD), and it goes away once the cause is gone.

When should you consult a doctor?

A chronic cough is characterized by the fact that it often lasts for eight weeks or more, but if the cough hinders a person’s ability to carry out his daily activities, he

should go to the doctor for consultation, especially if the cough is accompanied by sputum or blood, and limits the person’s ability to sleep at night, Or affect his relationship with his family and those around him.

Symptoms of chronic cough

A chronic cough can appear with other symptoms that accompany it, such as the following:

Nasal congestion, or runny nose.

Feeling runny in the throat.

Wheezing in the lungs, shortness of breath.

A feeling of heartburn, accompanied by a bad taste in the mouth.

Coughing with blood-tinged sputum.

Causes and risk factors for chronic cough

It is difficult to determine the exact cause of chronic cough, but there are several possible causes, such as the following

Secretions in the nasopharynx

There are many glands in the sinuses (Sinuses) and throat, which secrete saliva on a daily basis, which cleans the nasal passages and maintains their moisture, and in most cases, these fluids are swallowed involuntarily, and in the event of some disorders, such as: Allergies, colds, and sinus infections, fluid builds up so the patient can feel it.

These secretions in the nasopharynx may lead to local irritation and inflammation in the area, which causes a persistent cough. Although it is easy to determine the presence of secretions in the nasopharynx, chronic cough may sometimes not be accompanied by any other symptoms.

Asthma

Asthma is one of the most common causes of chronic cough, whether in children or adults, and in most cases, the cough is accompanied by wheezing and shortness of breath, and there are some types of asthma in which chronic cough is the only symptom associated with it.

A chronic cough resulting from asthma appears and disappears without any apparent reason, and its severity may worsen in many cases, such as: exposure to an infection in the upper respiratory tract, or exposure to very cold air, or certain chemicals, and this type of asthma is usually called hyperactivity in asthma. Respiratory tracts (Hyperactive Airways Disease).

The incidence of gastroesophageal reflux disease

This disease is associated with the return of stomach acids to the top towards the tube that connects the stomach and the oral cavity, which causes permanent irritation to the tissues of the esophagus, throat, and lungs, and thus chronic cough.

The patient's reflux may cause heartburn accompanied by a bad taste sensation in the mouth, but most people who suffer from chronic cough due to GERD do not show any other signs of the disease.

Having a respiratory infection

The cough may continue long after the other symptoms associated with the common cold, influenza, and pneumonia have disappeared, because the infection in the respiratory tract is still active.

Take medications to treat blood pressure

A chronic cough appears in about 20% of those taking angiotensin-converting enzyme (ACE) inhibitors, which are given by prescription to people with high blood pressure or congestive heart failure (CHF).

In most cases, the cough begins a week after starting the drug, and sometimes after about six months, and although the cough disappears after a few days of stopping the drug, it may continue in some cases for a whole month.

chronic bronchitis

Bronchitis causes many symptoms, such as: congestion of the lungs, shortness of breath (dyspnea), and chronic cough that is accompanied by phlegm.

Smokers or former smokers are more likely to suffer from bronchitis. Therefore, coughing is usually a sign of damage to the lungs and airways.

Bronchiectasis

The expansion of the bronchi is one of the serious medical conditions in which an exceptional expansion of the airways occurs, which affects the ability of the lung to get rid of the accumulated sputum in it, and the expansion is usually preceded by inflammation in the lungs.

Symptoms of bronchiectasis include many things, such as: coughing with phlegm or blood, shortness of breath, and fatigue.

Lung Cancer

There is a small percentage of people who suffer from chronic cough due to lung cancer, and most of them are smokers or ex-smokers. Therefore, it is preferable to see a doctor in the event of a cough accompanied by bloody sputum, especially in smokers.

smoking

The possibility of chronic cough increases in smokers or former smokers, and continuous exposure to smoke greatly increases the possibility of infection.

sex

Women's coughs are more severe than men's, which makes them more susceptible to chronic coughing.

Complications of chronic cough

A chronic cough may cause many complications, such as the following:

headache.

Dizziness.

excessive sweating

incontinence.

The appearance of cracks in the ribs, especially in women with weak and fragile bones.

Diagnosis of chronic cough

The disease is diagnosed depending on the extent of the patient's response to a specific treatment, not by conducting medical examinations, and if the cough disappears after taking the treatment, this indicates confirmation of the diagnosis.

In the event that the first method does not respond, some tests are resorted to, such as the following:

Imaging examinations

It includes several examinations, such as: chest x-ray (X-Ray) and imaging Computed tomography - CT.

Lung function test

It is a simple test that measures the amount of air the lungs can absorb, in addition to the speed of inhalation and exhalation. Sometimes a test is performed to detect asthma, by examining breathing capacity before and after taking a drug called methacholine.

Endoscopic examinations

In this test, a thin and flexible tube is inserted through the mouth, containing a camera and a small lamp at its end, through which the internal organs of the body can be viewed. Also painkillers or sedatives to ease the sensation that accompanies the examination.

Chronic cough treatment

The treatment of chronic cough is known and clear, in general if the cause is known, but if it is not clear, the issue will become more complicated, and the treatment of chronic cough can include the following:

Anti-allergic medications, such as: antihistamines and decongestants.

Anti-inflammatory medications, such as: Corticosteroids.

Antacids for the treatment of GERD.

In cases where the cause of chronic cough is not known, it is treated with the help of analgesic drugs, and drugs that help open the airways in the lungs.

Prevention of chronic cough

Chronic cough can be prevented by avoiding risk factors and triggers as much as possible.

11-Acute Bronchitis مرض التهاب القصبات الحاد

Bronchitis or bronchitis is inflammation and alertness in the airways responsible for entering air into the lungs. When bronchitis occurs, the airways swell, edematous, and sputum is produced, which is the cause of coughing.

Types of bronchitis

Bronchitis is classified into two types:

1. Acute bronchitis

It usually progresses rapidly and the patient feels better after two to three weeks. Most normally healthy people who develop acute bronchitis recover without any complications.

2. Chronic bronchitis

It is a disease that recurs and lasts for a relatively long period, especially in smokers. Chronic bronchitis is when the patient suffers from a cough with sputum on most days during three or more months a year for two consecutive years.

Symptoms of acute bronchitis

The most common symptom that accompanies bronchitis is a cough that is dry at first, and after a few days becomes sputum and the patient may feel low in body temperature as well as tired.

Symptoms associated with acute bronchitis usually begin three to four days after the onset of inflammation. Most people feel better after two to three weeks. However, some people may suffer from coughing for more than four weeks.

Pneumonia may be accompanied by symptoms similar to those of acute bronchitis, and since pneumonia is a serious and dangerous disease, it is important to know the differences between the two diseases. Symptoms of pneumonia include a sharp rise in temperature, chills, cold and shortness of breath.

Causes and risk factors for acute bronchitis

Bronchitis is usually caused by a viral infection. Most people get bronchitis after they have had an upper respiratory tract infection such as a cold or the flu. In rare cases, especially acute bronchitis, the cause may be a bacterial infection.

Bronchitis may also occur as a result of inhaling foreign substances into the lungs, such as: smoke, or inflammation due to food or vomit entering the lungs.

Complications of acute bronchitis

Complications of acute bronchitis are rare but include:

Respiratory infection such as viral or bacterial pneumonia.

Chronic bronchitis.

asthma.

Sinusitis.

Also, depending on the pathogen, complications include other infectious lung diseases such as:

tuberculosis.

Whooping cough.

The development of chronic obstructive pulmonary disease.

Diagnosis of acute bronchitis

The attending physician inquires about the symptoms experienced by the patient and then performs a physical examination. This procedure is generally sufficient to give all the necessary information in order to diagnose whether the condition is really acute bronchitis or not.

In some cases, the doctor may order a chest x-ray to rule out pneumonia or another lung problem.

Treatment of acute bronchitis

Most people can receive treatment for the symptoms that accompany bronchitis at home, the patient should drink a sufficient amount of fluids and it is possible to take medicines that are sold without a prescription together with medicine to remove sputum, but you must consult a doctor because it is not suitable for all patients as this medicine helps Excretion of sputum that has collected in the lungs by coughing, and lozenges can also be used against coughing or to soothe a dry and painful throat.

It is true that anti-cough drops or syrup cannot stop it completely, but they can improve the feeling in the throat, as most people do not need antibiotics to treat bronchitis.

If a patient with bronchitis suffers from diseases of the heart or lungs, such as: failure in the heart muscle, chronic obstructive pulmonary disease or asthma, he should see a doctor; Because he may then need additional treatment.

Prevention of acute bronchitis

To prevent acute bronchitis, the following can be done:

Wash your hands frequently with soap and water for at least 20 seconds.

Keep hand sanitizer nearby in case soap and water are not available.

Stay current on all immunizations, including the flu shot and the pneumonia vaccine if you're over 65 or at high risk.

Cover the mouth when coughing and stay home when sick.

Avoid smoking or exposure to other irritants, which can make acute bronchitis worse.