

LUPUS

What Is Lupus?

Lupus refers to several forms of an immunologic disease that affects joints, skin, kidneys and other parts of the body. In most cases the term lupus refers to the form known as *systemic lupus erythematosus* (sis-TEM-ick LOO-pus ee-RIH-them-ah-TOE-sis), or SLE for short.

In general, lupus is an inflammatory condition that may be chronic. *Inflammation* refers to a reaction that results in pain, heat, redness and swelling in affected organs. *Chronic* means the condition is long-lasting, which could mean it lasts for the rest of your life. You may not necessarily experience symptoms on a constant basis, however.

Many people with lupus have changes in signs and symptoms known as flares and remissions. A *flare* is a period when the disease becomes more active with increased symptoms. During a *remission* little or no signs and symptoms of lupus are present. On rare occasions a person may have a complete or long-lasting remission, but this does not mean the disease has gone away.

What Causes Lupus?

The cause of lupus, with the exception of drug-induced lupus, is unknown. Doctors and scientists label it as an autoimmune disease. The immune system is your body's natural defense against infections, such as bacteria and viruses. The immune system fights off these substances in several ways, one of which is by creating special types of blood proteins called *antibodies* that attack and destroy invading substances. When the immune system does not function properly it loses the ability to distinguish between its own body cells and foreign cells. Instead of fighting foreign cells, the antibodies attack the body's own cells by mistake. This process is known as an autoimmune response (*auto* means *self*).

In an autoimmune disease, antibodies that are directed against the body's own cells are called *autoantibodies*. Antinuclear antibodies (ANA) are autoantibodies that are produced in lupus. There are different types of antinuclear antibodies formed. One type, known as anti-double stranded DNA (anti ds-DNA) antibodies, may attack the skin and kidneys and contribute to disease.

Antinuclear antibodies are found in almost all cases of lupus. ANA also may be found in people with other diseases, such as rheumatoid arthritis and Sjogren's syndrome, and can even be found in a number of healthy people.

Who Gets Lupus?

Studies suggest that certain people may inherit the tendency to get lupus. Researchers have found that new cases of lupus appear to be more common in families in which one member already has the disease. Currently, though, there is no evidence that lupus is directly passed from parent to child. Some scientists believe that a virus or another environmental factor may trigger symptoms in people who have a genetic tendency to develop lupus.

Approximately 90 percent of the people who have lupus are women. In most cases, symptoms first appear in women of childbearing age (18 to 45). But lupus also occurs in young children and in older people. African Americans tend to get lupus more often than Caucasians. Some studies suggest the disease may also occur more frequently in Asian and Latino populations than in Caucasians.

Symptoms of Lupus

You may develop several of the symptoms mentioned in this section or just a few. Lupus is unpredictable, and no two people have the same symptoms.

The American College of Rheumatology (ACR) has developed guidelines to help doctors diagnose lupus. If a person has four or more of the following 11 symptoms listed, it is likely that the person has lupus (or a similar disorder).

Main Symptoms and Signs

If you experience four or more of the signs or symptoms listed below, consult a health-care professional who can determine whether you have lupus or one of many other conditions that can cause similar symptoms. Other diseases can cause some of these physical and laboratory abnormalities. The 11 main signs that may indicate lupus include:

1. A rash across the cheeks and the bridge of the nose
2. Scaly, disk-shaped rash on the face, neck, ears, scalp and/or chest
3. Sensitivity to sunlight (such as severe rashes or illness [fever or extreme tiredness] from minimal sun exposure)
4. Sores on the tongue, inside the mouth, and/or in the nose
5. Arthritis (pain, stiffness and swelling in the joints)
6. Pain in your chest and side when you breathe and/or move
7. Kidney problems (Can be detected by a urine sample that shows protein and/or red blood cells in the urine, or by blood tests of kidney function called *blood urea nitrogen* (BUN) or creatinine. Severe cases may be associated with symptoms such as swelling of the legs and feet from protein leaking into the urine.)
8. Neurologic (brain) problems, including seizures, psychosis or strokes
9. Blood problems such as low white blood cell count, low platelet count or anemia
10. Immune system problems
11. Antinuclear antibodies (These attack the body's own cells.)

Diagnosis

Lupus can be difficult to diagnose. Your doctor will begin the diagnostic process by asking you many questions and conducting a physical exam. You'll also have laboratory tests, including ones to see if you have too few red blood cells, white blood cells or platelets (blood cells that help to control bleeding and clotting), and other tests to check your kidney function.

If your doctor thinks you may have lupus, he or she will order a blood test called an ANA, which detects a group of autoantibodies found in the blood of people with lupus. These autoantibodies attack the body's own cells. However, this test is not diagnostic of lupus. Other laboratory tests to detect specific antibodies such as anti-DNA or anti SM may be helpful in diagnosing lupus or related diseases. Tests to measure the level of complement in your blood may be obtained; levels of complement are often low or reduced in patients with lupus.

Other blood tests may be conducted for diagnosis and as an aid in following disease activity. Blood chemistry tests can help determine whether organs such as the kidneys and liver are functioning normally.

Because kidney problems often occur, you'll need a urinalysis, which is an examination of your urine. If protein is found you then may be asked to collect all the urine you pass in a 24-hour period for analysis. If your doctor suspects kidney problems, you may also have a biopsy, in which a small piece of tissue from one of your kidneys is removed and examined. This procedure requires an overnight hospital stay.

Your doctor may take a chest X-ray to determine if the disease is affecting your lungs or heart. An electrocardiogram and echocardiogram may also help determine to what extent the disease affects your heart.

Treatments

The treatment plan for lupus includes taking medications to reduce the inflammation and reduce the activity of the immune system, balancing rest with exercise, and maintaining a proper diet.

Lupus is an unpredictable disease. Signs of the disease appear and disappear, sometimes for no apparent reason. Because lupus assumes so many different forms and can change, finding the right balance of treatment for you may take time. Your treatment will depend on the symptoms you experience and the organs affected. Once an effective treatment program has been started, continue to follow it. If your symptoms change, let your doctor know so that you can work together to modify your program.