

## Systemic Lupus Erythematosus

Systemic lupus erythematosus, often just called lupus, is a chronic disease that can affect almost any part of the body. People with mild lupus may only have skin rashes and/or joint pain. In people with more severe lupus, important organs like the kidneys, heart, blood vessels, lungs, gastrointestinal tract, and brain can be involved. Any two people with lupus may have different symptoms or manifestations. People with lupus can have active disease or sometimes go into a period of remission of low disease activity. While lupus cannot be cured, your health care provider can help you control symptoms.



### What Happens in the Body?

Lupus symptoms are caused by an overly active immune system. Normally the immune system protects us by attacking bacteria, viruses and other cells recognized as foreign and harmful to the body. But in lupus, the immune system mistakenly attacks healthy cells and tissue. Lupus is called an **autoimmune disorder**. This is because the immune system attacks “self”. (“Auto” means self.) The reasons for these mistakes by the immune system are not completely understood.

### Why Does a Person Get Lupus?

It is estimated that 1.5 million people in the United States have lupus (1 in 1000). Ninety percent of them are women, usually in child bearing years. Most cases of lupus are diagnosed in women between the ages of 12 and 40. Lupus is more common in African Americans, Hispanics and Asians.

It is difficult to know exactly what causes a person to develop lupus. There are probably multiple factors which predispose someone to develop lupus, such as genetics or environmental triggers. If you have a family member with an autoimmune disease, you may have a higher risk of lupus, indicating a genetic link. Environmental triggers are thought to include viral infections, exposure to silica dust, sun exposure, various medications and hormones. Estrogen is also thought to be an important trigger for the development of lupus. This may be why women develop this condition more readily than men and during reproductive years. Researchers are working hard to determine the cause or causes of lupus.

### How is Lupus Diagnosed?

Many people with lupus feel frustrated and angry because they have been ill for months or even years before they are told they have lupus. It is often difficult to diagnose lupus early in its early stages. Lupus symptoms are similar to those of other diseases and can come and go even without treatment.

Symptoms of lupus may include:

- Rash over the cheeks (malar or butterfly rash),
- Round raised patches (discoid rash), usually on the scalp or ears,
- Sensitivity to the sun or other ultraviolet light,
- Ulcers or sores in the mouth,
- Pain and swelling in joints,
- Inflammation around the lungs, heart or abdomen,
- Kidney inflammation,
- Problems in the nervous system such as seizures, strokes or psychosis,
- Abnormalities in the blood like low blood counts,
- Abnormalities in the blood such as low blood counts.

Discoid lupus, can be made when a person only has a patchy, round, rash, and no other symptoms.

## What are Associated Conditions, Heart Disease?

Lupus can affect any organ system, including the cardiovascular system. This includes the heart and blood vessels. Some people can experience fluid around the heart or heart inflammation. Recent reports suggest that people with a chronic autoimmune disease, such as lupus, may also be at increased risk of heart disease.

Heart disease is a condition where fatty substances, called plaque, build up in the heart's arteries. The plaque hardens and makes the arteries narrower, affecting blood flow. This can lead to an increased risk of heart attacks and strokes.

At this time, researchers are unsure of the true cause of the increased risk of heart disease, but chronic inflammation associated with autoimmune diseases may be partially responsible. Other potential risk factors include medications, such as corticosteroids.

More traditional risk factors such as Type 2 diabetes, elevated cholesterol levels, family history of heart disease and hypertension can also increase the chance of heart disease.

Interestingly, the increased risk of heart disease seen in lupus appears to be separate from these traditional risk factors, suggesting that lupus is to blame. However, it is still recommended that doctors try to limit the traditional, modifiable risk factors to best prevent the development of heart disease.

## How Can Symptoms be Managed?

The goal of treatment is to control inflammation and prevent damage to vital organs.

Because lupus causes the immune system to attack the body's own cells, inflammation occurs. There are medications that can help prevent the immune system from making this mistake, prescribed depending on severity of symptoms and the organs that are involved. These medicines can decrease the power of the immune system and minimize the pain and damage caused by inflammation. Sometimes, however, the medications can make you more susceptible to infections, since the immune system is suppressed.

Lifestyle changes can also help decrease symptoms. These changes can include getting extra rest during a flare, reducing stress and avoiding sun exposure with clothing and/or sunscreen.

As mentioned above, recent evidence also suggests that people with lupus may have an increased risk of heart attacks compared with the general population. Because of this risk, people with lupus should try to stay health and avoid smoking. To help reduce risk of heart disease:

- Follow a low-fat, low cholesterol diet,
- Maintain a healthy weight,
- Avoid smoking,
- Talk to a doctor about ways to reduce blood pressure if it is high.

Such lifestyle changes, combined with medication, can control lupus symptoms in most people.

## What is the Role of National Jewish Health?

National Jewish Health is one of the world's leaders in the study and management of immune diseases, such as lupus. Our health care providers have vast experience in treating people with lupus. We provide the expertise needed for the comprehensive evaluation and management of people with lupus. We aim to design a personalized treatment plan best suited for each person with lupus. In addition, in order to provide for comprehensive care of our patients with lupus National Jewish Health also provides physical, occupational, and recreational rehabilitation services in our rehabilitation department.

For more information or to schedule an evaluation with one of our Rheumatologists, call LUNG LINE® at 1-800-222-LUNG.

Visit our website for more information about support groups, clinical trials and lifestyle information.

PTE.044 © Copyright 1992, 2017

NOTE: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

**National Jewish Health** is the leading respiratory hospital in the nation. Founded 123 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit [njhealth.org](http://njhealth.org).