

Lupus Research Project

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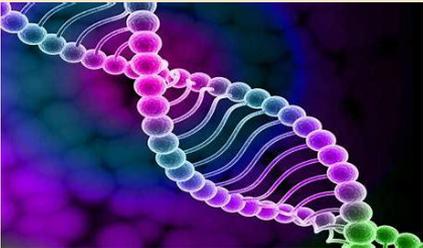
Google Definition of Lupus

Lupus is an autoimmune disease, with systemic manifestations including skin rash, joint pain or even kidney failure. Lupus is a systemic autoimmune disease that occurs when your body's immune system attacks your own tissues and organs. Inflammation caused by lupus can affect many different body systems — including your joints, skin, kidneys, blood cells, brain, heart and lungs.



How you get it

Doctors don't know exactly what causes lupus. They think genetics, hormones, and your environment may be involved. You could be born with a gene that makes you more likely to get lupus. Then you might be exposed to something in your environment, and that triggers the disease, such as a virus. Exact cause is not known.



Symptoms

Signs and symptoms may include:

- Butterfly rash on the face
- Appetite loss
- Hair loss
- Fever
- Fatigue
- Photosensitivity
- Pericarditis
- Painful or swollen joints and muscle pain
- Unexplained fever
- Chest pain upon deep breathing
- Swelling in legs or around eyes
- Mouth sores



Image Diagram of Symptoms

Lupus

Systemic Lupus Erythematosus

An autoimmune
disease

A systemic
disease - affects
many parts of
body

Not contagious or
infectious

Treatable but not
curable

Often
misdiagnosed

Cause unknown

Signs & Symptoms



Treatments



The treatment to reduce and manage symptoms.

Medication

- Anti-inflammatory drugs: Given as oral medications, ointments, or intravenous injections.
- Steroid cream: Reduces the rashes.
- Immunosuppressants

Lupus is mainly treated with medicine. The types of drugs that have been used to treat lupus include NSAIDs, corticosteroids and other immune system suppressing drugs, such as hydroxychloroquine, and the newest lupus drug, Benlysta.

Sometimes the symptoms of lupus can be calmed down with a dose of IVIG, which is a liquid that comes from the blood of blood donors and is injected through an IV into the patient.

Medical treatment suggested by medical practitioners for people with lupus includes plaquenil which is a 200 mg. tablet that gives lots side effects such as nausea, hair bleaching, blurred vision, and loss of hair.

What types of people it occurs in

People of African, Asian, and Native American descent are more likely to develop lupus. Although it can occur in both men and women, 90% of people diagnosed with the disease are women. Women of childbearing age (14 to 45 years old) are most often affected and as many as 1 in 250 people may develop lupus.



Side Effects



There are several antimalarial drugs that are used to treat lupus. The side effects of these drugs are itching, trouble sleeping, blurred vision, dizziness, headache, diarrhea, vomiting, nausea, and upset stomach. Effects of lupus on the body of an afflicted person are serious and can really cause great damage on major body organs such as the heart, lungs, blood vessels, brain, kidneys, joints and a lot more parts of the body. Damage on the body parts is a result of inflammation set off by lupus. Lupus can affect any part of your body.

Common symptoms include: Achy joints, Fever higher than 100 F, Swollen joints, Constant or severe fatigue, Skin rash, Ankle swelling, Pain in your chest when breathing deeply, A butterfly-shaped rash across your cheeks and nose, Hair loss, Sensitivity to the sun or other lights, Seizures, Mouth or nose sores, and Pale or purple fingers or toes when you're cold or stressed.

What happens in Lupus

When you have lupus, something happens to your body's natural defense system (your immune system) to make it work incorrectly. Instead of only targeting bad things like viruses and bacteria, it also attacks healthy cells and tissues. There are several types of lupus, and every case is different.

Lupus happens when the body's defense system attacks healthy cells and tissues, instead of viruses and bacteria.



Signs of Lupus

1. **Rash:** A red rash spreading across the cheeks and over the bridge of the nose, usually shaped like a butterfly.
2. **Discoid patches:** Raised patches of red on the skin with a lighter center and outer red rim.
3. **Photosensitivity:** Lupus patients may find their skin is very sensitive to the sun's UV rays.
4. **Ulcers:** Sores in the nose or mouth are a common symptom of lupus.
5. **Arthritis:** Lupus patients may experience pain, tenderness, or swelling in their joints. In some cases, they might have excess fluid surrounding the joints.
6. **Heart and lung problems:** The lining of the heart and the lungs may become inflamed, causing either (or both) pericarditis and pleuritis.



Is Lupus deadly?

For the majority of people living with the disease today, it will not be fatal. Lupus varies in intensity and degree. Some people have a mild case, others moderate and some severe, which tends to be more difficult to treat and control. Historically, lupus caused people to die young, mainly from kidney failure. Today, 80 to 90 percent of people with lupus can expect to live a normal lifespan. The leading causes of death in lupus. Until recently, the most common cause of death in people with lupus was kidney failure. Now, with better therapies and the possibility of kidney transplantation, the frequency of death from kidney disease has decreased a lot. However, kidney failure is still fatal in some people with lupus. As death from kidney disease has declined, heart attacks and related heart diseases have emerged as leading causes of early mortality in people with lupus. Regardless of what causes lupus, once you have the condition, the damage it causes can be very serious. Lupus attacks your tissues all over the body, basically turning your body's immune system against you. The condition damages the heart, lungs, and kidneys. And this damage can turn out to be life-threatening. For people with lupus, some treatments can increase the risk of developing possibly fatal infections. However, the majority of people with lupus can expect a normal or near-normal life expectancy. Research has shown that many people with a lupus diagnosis have been living with the disease for up to 40 years.



Lupus Nutrition

Foods to Eat:

Beans

Dark green leafy vegetables such as spinach and broccoli

Kale

Beet Greens

Collard Greens

Dino Kale

Mustard Greens

Rainbow Chard

Red Chard

Swiss Chard

Raw plant foods

Chia seeds/Flax seeds

Berries

Foods to Avoid:

White potatoes

Tomatoes

Sweet and hot peppers

Eggplant

Garlic

All kinds of meat

All kinds of dairy

Oil (with the exception of avocado oil and olive oil)

Processed foods

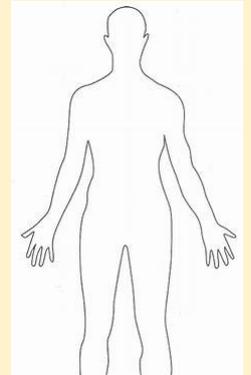
Caffeine

Nuts (Except almonds)



How Lupus affects the body

Lupus may attack the nervous system through antibodies that bind to nerve cells or the blood vessels that feed them, or by interrupting the blood flow to nerves. Conditions associated with or sometimes seen in lupus include headaches, organic brain syndrome, and CNS vasculitis.



How Lupus affects muscles

Lupus arthritis causes pain, stiffness, swelling, tenderness and warmth in your joints. The joints most often affected are the ones farthest from the middle of the body, such as fingers, wrists, elbows, knees, ankles and toes. General stiffness upon awakening, which gradually improves as the day goes on, is a main feature of lupus arthritis.



Avoid Sunlight if you have Lupus

People with lupus should avoid the sun, since sunlight can cause rashes and flares. Some people are more sensitive to sunlight than others, but all people with lupus are advised to be cautious when they are outside. Of course, it would be impractical to completely avoid going outdoors, but try to be prepared.



Can Animals get Lupus?

Dogs are most at risk for the disease; it rarely occurs in cats. There are two forms: systemic lupus erythematosus (SLE), that can affect multiple systems within the body, and a milder form that is limited to the skin: lupus erythematosus (DLE).



Lupus Surgery

Although many people with lupus have some kidney involvement, most respond to medical treatment and very few go on to the point of kidney failure. But when kidney failure does occur, surgery may become necessary. To test to see if you have lupus, a biopsy is required in the kidney.



Lupus makes you gain weight

Many times you will gain weight during a lupus flare simply because of water weight, despite all of your best efforts. This can feel infuriating and make you feel out of control of your body. Another common way that makes you gain weight with lupus is steroids to calm it down, such as prednisone. Prednisone common side effects also include hair growth, weight gain, hunger, moodiness, insomnia, and acne.



What is inflammation?

Inflammation usually happens when your immune system is fighting an infection or an injury. When lupus makes your immune system attack healthy tissue, it can cause inflammation in lots of different body parts. Symptoms can include swelling and pain.



Lupus in Children

Lupus is rare in children. In fact, according to a 2013 study, it's estimated that lupus occurs in only 3.3 to 8.8 out of 100,000 children.

Similar to lupus in adults, most children who get lupus are female. The common lupus symptoms in children are also similar to those in adults.

Joint inflammation is also quite common among children with lupus.



Lupus and depression

Depression can occur often in people who have lupus. According to a 2018 study, an estimated 25 percent of people with lupus also have depression. Some symptoms include:

- feelings of sadness, hopelessness, or guilt
- low self-esteem
- crying, which can happen without a specific reason
- difficulty concentrating
- trouble sleeping or sleeping too much
- fluctuations in appetite that cause you to gain or lose weight
- noticing that you're no longer interested in things that you enjoyed in the past



Lupus Arthritis

Lupus Arthritis appears in 35% of systemic lupus erythematosus (SLE) patients and joint pain is the first symptom of the disorder. Lupus arthritis is common among 35 out of 100 people with systemic lupus erythematosus (SLE). In fact, joint and muscle pain is almost always experienced by many patients diagnosed with SLE. Lupus erythematosus is an inflammatory autoimmune disease causing scaly red patches on the skin, especially on the face, and sometimes affecting connective tissue in the internal organs.





Types of doctors for Lupus

There are lots of different types of doctors for lupus, but here are some of the main ones and why they are important.

- Rheumatologists. These are the most important types of doctors because they help you monitor any changes or damages to your blood or blood cells. They also monitor your overall lupus and keep everything in order.
- Nephrologists - These doctors are the second most important because they help your kidneys function properly if they are under unnecessary attack by your immune system. They also monitor inside and around the kidney to look for any inflammation or anything that is out of place.
- Pediatricians They are important to dealing with lupus because they have a general knowledge of all the basic aspects of lupus and can help you recover from lots of minor lupus flare ups and/or symptoms. They are not specialized in any part of lupus but they help keep everything calm. NOTE - Pediatricians are only for children with lupus, also known as pediatric lupus patients (like Fajr)

Why I decided to research about Lupus

I decided to research about Lupus because I, Fajr Subzwari have lupus and I wanted to learn more about it.



The Story of how I got diagnosed with Lupus

Since it's related to the topic, I will be telling you about how I got diagnosed with Lupus 5 years ago. My family and I went on vacation and before we went we had to get the meningitis vaccine. While we were staying in the hotel, I started to have really bad chest pain and a 108 F fever. We had to come home immediately and I had to be admitted to the children's hospital for 2.5 months to get tested and find a diagnosis. The doctors finally found out I had lupus (or more specifically SLE & Class II lupus nephritis & Systemic lupus erythematosus, with recurring episodes of pericarditis and serositis). I even had to spend my 8th birthday in the hospital. I finally went home on about 10 different medications and by slowly weaning down, eventually I got down to 2 vital tablets I need to take every day. Over time, some of my medications stopped working and we had to switch to other options, but right now I am healthy and stable. I am still not allowed to go into sunlight for too long or exert myself. Turns out, I had lupus ever since I was born, but the vaccine that I took triggered my lupus for the first time. That's my story on how I got lupus.

Thank you for reading my presentation

I hope you enjoyed it and I hope that
I provided enough information