

JAMA PATIENT PAGE

What Is Lupus?

Lupus is a chronic autoimmune disease that can damage various organs in the body.

Systemic lupus erythematosus, commonly called lupus, affects about 3.4 million people worldwide, approximately 90% of whom are female. About 65% of people with lupus are diagnosed before age 50 years. Lupus likely develops due to a combination of genetic risk factors and environmental exposures. Potential environmental risk factors include UV light, cigarette smoking, infection with Epstein-Barr virus, or occupational exposure to silica from work such as painting or sandblasting.¹

What Are the Symptoms of Lupus?

Typical lupus symptoms include fever, hair loss, skin rash, mouth sores, and joint pain and swelling. Patients with lupus also may have fatigue, headaches, depression, anxiety, cognitive impairment, chest pain, shortness of breath, abdominal pain, and nausea.

Other Medical Conditions Associated With Lupus

About 40% of people with lupus develop an inflammatory condition of the kidneys called lupus nephritis. Lupus is also associated with increased likelihood of developing heart disease, stroke, certain cancers including non-Hodgkin lymphoma, infections (such as fungal or tuberculosis), and osteoporosis. Pregnant people with lupus are at increased risk of having pregnancy loss and preeclampsia, a serious condition that involves high blood pressure and protein in the urine.

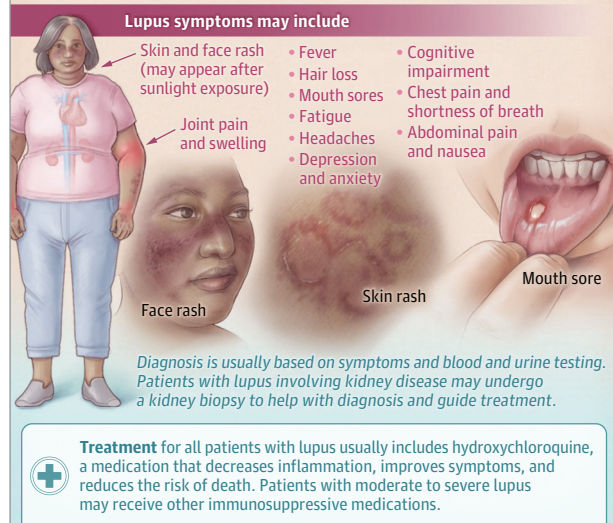
How Is Lupus Diagnosed?

Lupus is typically diagnosed based on characteristic symptoms, a positive blood antinuclear antibody (ANA) test, and other abnormal laboratory test results. Although patients with lupus almost always have a positive ANA test, these antibodies may also be present in patients with other autoimmune conditions such as Sjögren syndrome, autoimmune hepatitis, and autoimmune thyroiditis, and at low levels in up to one-third of healthy individuals.

Blood testing can also identify other types of antibodies associated with lupus. Patients with lupus may have decreased levels of white blood cells or other blood cells and an elevated protein or blood level in the urine. When lupus nephritis is suspected, a kidney biopsy can help confirm the diagnosis, determine the extent of inflammation and organ damage, and guide therapy.

Before a diagnosis of lupus is made, other conditions need to be considered, such as other autoimmune diseases, parvovirus, syphilis, and lymphoma, depending on a patient's symptoms.

Systemic lupus erythematosus (commonly called lupus) is a chronic autoimmune disease that can affect various organs in the body including the kidneys and heart. Approximately 90% of patients with lupus are female.



Treatment and Prognosis of Lupus

The goal of treatment is to decrease the inflammation and organ damage caused by lupus and to improve patients' survival and quality of life. Initial treatment for lupus depends on the severity of inflammation, the organs affected, other medical conditions, and whether a patient is considering pregnancy.

Nearly all patients with lupus should be treated with hydroxychloroquine, a medication that decreases inflammation, improves lupus symptoms, and reduces risk of death. Patients with moderate to severe lupus may receive steroids and other immunosuppressive medications, such as azathioprine, mycophenolate mofetil, methotrexate, tacrolimus, and cyclophosphamide, or biologic drugs (belimumab, anifrolumab, rituximab).

Approximately 10% of patients with lupus nephritis develop end-stage kidney disease after 10 years. Compared with the general population, patients with lupus have higher death rates, primarily due to kidney disease, cardiovascular disease, and infection.

FOR MORE INFORMATION

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1. Siegel CH, Sammaritano LR. Systemic lupus erythematosus: a review. *JAMA*. 2024;331(17):1480-1491. doi:10.1001/jama.2024.2315

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