

# Lupus Nephritis

National Kidney and Urologic Diseases Information Clearinghouse



National  
Institute of  
Diabetes and  
Digestive  
and Kidney  
Diseases

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## What is lupus nephritis?

Lupus nephritis is an inflammation of the kidney caused by systemic lupus erythematosus (SLE), a disease of the immune system. SLE typically causes harm to the skin, joints, kidneys, and brain.

The causes of SLE are unknown. Many factors may play a role, including

- gender—SLE is more common in women than men
- heredity—a gene passed down by a parent
- infections
- viruses
- environmental causes

## What are the symptoms of lupus nephritis?

Lupus nephritis may cause weight gain, high blood pressure, dark urine, or swelling around the eyes, legs, ankles, or fingers. However, some people with SLE have no overt symptoms of kidney disease, which must be diagnosed by blood and urine tests.

## How is lupus nephritis diagnosed?

Diagnosis may require urine and blood tests as well as a kidney biopsy.

- Urine test: Blood or protein in the urine is a sign of kidney damage.
- Blood test: The kidneys remove waste materials like creatinine and urea from the blood. If the blood contains high levels of these substances, kidney function is declining. Your doctor should estimate your

glomerular filtration rate based on your creatinine score.

- Kidney biopsy: A biopsy is a procedure to obtain a tissue sample for examination with a microscope. To obtain a sample of your kidney tissue, your doctor will insert a long needle through the skin. Examining the tissue with a microscope can confirm the diagnosis of lupus nephritis and help to determine how far the disease has progressed.

## How is lupus nephritis treated?

Treatment depends on the symptoms and test results. Medicines called corticosteroids can decrease swelling and inflammation by suppressing the immune system. Additional immunosuppressive drugs related to cancer and drugs used to prevent rejection of organ transplants may also be used. In severe cases, your doctor may prescribe cyclophosphamide (Cytoxan, Neosar) or mycophenolate (CellCept). Newer experimental treatments include a drug called rituximab (Rituxan).

You may need one or more medicines to control your blood pressure.

You may need to limit protein, sodium, and potassium in your diet.

## For More Information

Lupus nephritis is also classified as a glomerular disease. For more information, see the National Kidney and Urologic Diseases Information Clearinghouse publication *Glomerular Diseases*.

The National Institute of Arthritis and Musculoskeletal and Skin Diseases has online publications about *Systemic Lupus Erythematosus* and *The Many Shades of Lupus* (easy-to-read).



U.S. Department  
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More information is also available from

**National Institute of Arthritis and  
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Publications produced by the Clearinghouse are carefully reviewed by both NIDDK scientists and outside experts. This publication was reviewed by James E. Balow, M.D., Chief, Kidney Disease Branch, NIDDK.

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