

# Goodpasture's Syndrome

*National Kidney and Urologic Diseases Information Clearinghouse*



National  
Institute of  
Diabetes and  
Digestive  
and Kidney  
Diseases

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## What is Goodpasture's syndrome?

Goodpasture's syndrome is a rare disease that can affect the lungs and kidneys. Also called anti-glomerular basement antibody disease, it is an autoimmune disease—a condition in which the body's own defense system reacts against some part of the body itself. When the immune system is working normally, it creates antibodies to fight off germs. In Goodpasture's syndrome, the immune system makes antibodies that attack the lungs and kidneys. Why this happens is not fully understood. Researchers have identified a number of possible causes, among them the presence of an inherited component; exposure to certain chemicals, including hydrocarbon solvents and the weed killer Paraquat; and viral infections.

## What are the symptoms of Goodpasture's syndrome?

Goodpasture's syndrome can cause people to cough up blood or feel a burning sensation when urinating. But its first signs may be vague, such as fatigue, nausea, difficulty breathing, or paleness. These signs are followed by kidney involvement, represented first by small amounts of blood in the urine, protein in the urine, and other clinical and laboratory findings.

## How is Goodpasture's syndrome diagnosed?

To diagnose Goodpasture's syndrome, doctors use a blood test, but a kidney or lung biopsy may be necessary to check for the presence of the harmful antibodies.

## How is Goodpasture's syndrome treated?

Goodpasture's syndrome is treated with oral immunosuppressive drugs—cyclophosphamide and corticosteroids—to keep the immune system from making antibodies. Corticosteroid drugs may be given intravenously to control bleeding in the lungs. A process called plasmapheresis may be helpful and necessary to remove the harmful antibodies from the blood. In plasmapheresis, a patient's blood is drawn, about 300 ml at a time, and placed in a centrifuge to separate the red and white blood cells from the plasma. The cells are then placed in a plasma substitute and returned to the body. This procedure is usually done in combination with immunosuppressive drug treatment.

Goodpasture's syndrome may last only a few weeks or as long as 2 years. Bleeding in the lungs can be very serious and even fatal in some cases. But Goodpasture's syndrome does not usually lead to permanent lung damage. Damage to the kidneys, however, may be long-lasting. If the kidneys fail, dialysis to remove waste products and extra fluid from the blood, or kidney transplantation, may become necessary.



U.S. Department  
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## For More Information

### American Kidney Fund

6110 Executive Boulevard, Suite 1010  
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Phone: 1-800-638-8299

Email: [helpline@kidneyfund.org](mailto:helpline@kidneyfund.org)

Internet: [www.kidneyfund.org](http://www.kidneyfund.org)

### National Kidney Foundation, Inc.

30 East 33rd Street

New York, NY 10016

Phone: 1-800-622-9010 or 212-889-2210

Internet: [www.kidney.org](http://www.kidney.org)

You may also find additional information about this topic by visiting MedlinePlus at [www.medlineplus.gov](http://www.medlineplus.gov).

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Publications produced by the Clearinghouse are carefully reviewed by both NIDDK scientists and outside experts.

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