

What is glomerulonephritis?

Glomerulonephritis is a form of inflammation that affects glomeruli (small filters in the kidney which normally function to remove waste and excess water from the blood). As the inflammation progresses, it can lead to permanent kidney impairment and eventually kidney failure.

How does glomerulonephritis come about?

There are many different types of glomerulonephritis and each type has a different cause. The commonest cause is an abnormality or over-activity of the immune system targeting the kidney cells, resulting in inflammation, scarring and loss of function.



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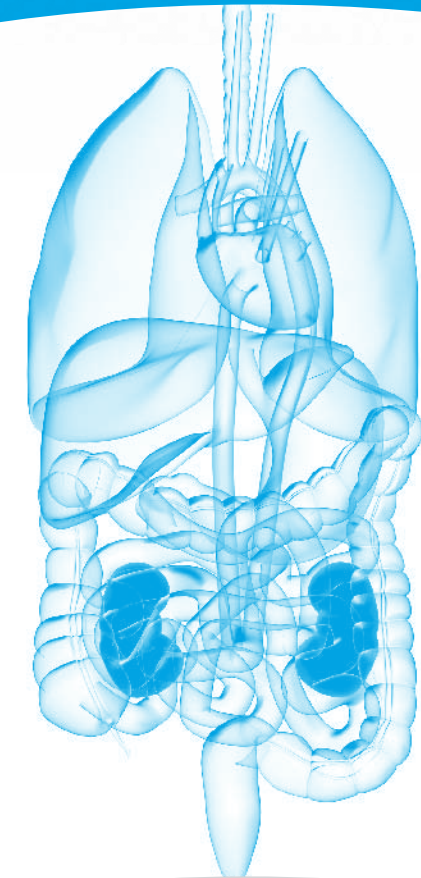
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All you need to know about Glomerulonephritis



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Who gets affected?

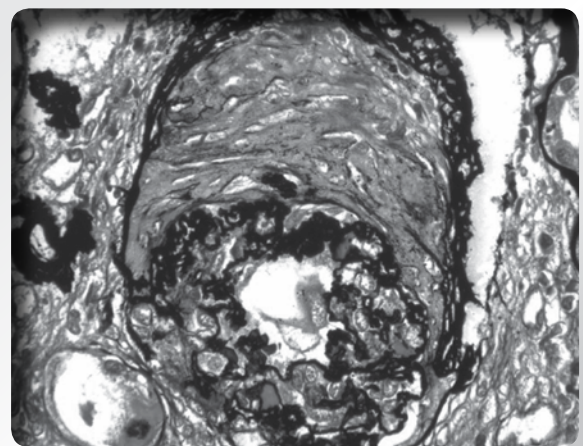
Adults of all ages can be affected, although women are generally more likely to develop the condition.

What are the signs and symptoms?

Glomerulonephritis may not show any signs or symptoms at an early stage. It may be picked up during routine health screening detecting the presence of blood or protein in the urine. Certain types of glomerulonephritis can present with disease activity in other parts of the body as part of a multi-system autoimmune disease, for example, skin rash or joint inflammation in systemic lupus erythematosus (SLE).

A person may also present with acute symptoms such as:

- Headache, nausea, vomiting, fever, chills
- Swelling in the face, hands and feet
- Foamy urine, smoky or dark-coloured urine
- Less urine
- Feeling tired
- High blood pressure



How is glomerulonephritis diagnosed?

- Blood samples to look for medical conditions that cause glomerulonephritis.
- Urine samples to look for presence of blood and protein in the urine.
- 24 hour urine collection to quantify the degree of protein leak in the urine.

Renal biopsy –This is a procedure that is done in the ward under local anesthesia, in which a small sample of the kidney is obtained using a ultrasound guided biopsy needle for microscopic examination.

Certain types of glomerulonephritides are associated with malignant conditions such as bone marrow infiltration and solid organ tumours and further screening for these conditions via computed tomography scans, endoscopy or bone marrow studies may be required.

What is the treatment for glomerulonephritis?

Treatment will depend on the clinical symptoms, type of glomerulonephritis and severity of kidney impairment.

ACUTE TREATMENT

Immunosuppression

- Medications that alter the body's immune system to reduce the damage to the kidney cells.
- Can be associated with side-effects and predispose to infections.
- Choice of medication is dependent on the type of glomerulonephritis, the severity of the disease as well as the body's constitution.

Dialysis therapy may be required in the acute stages if kidney function is severely impaired. This can be stopped if the body responds to the treatment and the kidneys recover their function. In some cases, dialysis may be required long term if the kidneys do not recover.

GENERAL TREATMENT

- Blood pressure control to reduce stress on the kidneys. ACE inhibitors or Angiotension receptor blockers may be used for this purpose.
- Diuretics to help get rid of excess salt and water.
- Low salt diet.

What is the long term outlook for patients with glomerulonephritis?

It varies depending on the type and severity of the glomerulonephritis, the individual's constitution and their response to treatment.

If diagnosed early, there is ample opportunity to control the disease. In patients who do not respond to treatment or in advanced cases, where the inflammation and scarring is extensive and irreversible, patients will be advised to prepare for long-term renal replacement therapy (Dialysis or Kidney transplant).

Patients with mild glomerulonephritis usually do not need treatment. However, regular monitoring with blood and urine tests and follow-up is important as they can progress to a more serious stage requiring treatment.

Patients on active immunosuppression will need to see the doctor frequently to monitor kidney function, the degree of protein and blood leakage in the urine as well as complications of treatment.

Where to get more information?

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.