

Patient Information

## Renal Services

# Everything I need to know about glomerulonephritis

The kidneys are a vital part of the body. Their main job is to remove waste products from the blood which are then passed out of the body in urine.

Each kidney has about 1 million tiny filters known as glomeruli. Glomerulonephritis is the name of a group of diseases of the kidney in which these filters, the glomeruli, become inflamed. When these are inflamed, the kidneys are unable to work properly, causing a build up of waste products and excess fluid.

Glomerulonephritis may be temporary and reversible (acute) or it may be progressive and worsen (chronic). Chronic glomerulonephritis may result in the destruction of glomeruli and lead to chronic kidney disease and end stage renal disease.

End stage renal disease is when the kidneys have failed and now require dialysis or a transplant.

The condition is more common in men than women. It often affects children and young people.

### **Possible causes of glomerulonephritis**

Often it is not clear what causes glomerulonephritis, but some of the causes include:

- A specific problem with the immune system which causes antibodies to



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attack the glomeruli. This causes inflammation and damage. It is not clear why the immune system causes glomerulonephritis. There may be some trigger such as an infection.

- Streptococcal throat infection.
- Viral infections.
- Glomerulonephritis may be linked to other diseases, diabetes, lupus, certain cancers and blood disorders, HIV, Hepatitis and TB.

## Symptoms

Symptoms will vary depending on the cause, but often there are no symptoms of glomerulonephritis.

### Symptoms can include:

- Damage to the glomeruli may cause blood and protein to leak into the urine. This is not visible to the naked eye, but often picked up by a health professional in a simple urine test.
- Sometimes there can be greater loss of blood through the filters, so the urine turns red. Blood in the urine is called haematuria.
- If there is greater loss of protein through the filters, the urine can become very frothy.
- Urine may be dark, rust coloured or brown.
- There may be water retention in the body (nephritic syndrome).
- You may have high blood pressure.

In the advanced stages, leading to kidney failure, symptoms may include:

- Tiredness
- Nausea and vomiting
- Weight loss
- Itching
- Swollen ankles and puffy face

Some causes of glomerulonephritis may also affect other parts of the body as well as the kidneys.

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Often, there are no symptoms at all, and glomerulonephritis may be diagnosed following a routine medical check-up carried out for conditions such as high blood pressure.

## Diagnosis

Various tests are carried out to confirm the diagnosis. These include:

- Urine tests, checking for blood and protein in the urine
- Blood tests, checking for abnormal antibodies
- Kidney biopsy

## Treatment

This can depend on the causes of glomerulonephritis. Treatment will focus on the cause as well as the condition and may include the use of drugs to:

- Suppress the immune system such as steroids
- Control blood pressure
- Streptococci throat infections are treated with antibiotics
- Other infections may require antibiotics or anti-viral drugs

### Or it may be controlled through:

- Your diet - Salt restriction
- Fluid intake regulation

Advanced disease leading to end stage renal disease will require dialysis or kidney transplantation.

## Complications

These can vary according to the type of glomerulonephritis. They include:

- High blood pressure.
- The auto immune system that has damaged the kidneys can also affect other parts of the body. Symptoms will vary depending on the cause, but report these to your doctor. These may include: a blotchy red rash on the skin or pain in the joints.
- Kidney failure.

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- Pain: most patients with glomerulonephritis do not get pain over the kidneys, but in a few cases it can be severe.

### Is glomerulonephritis inherited?

Most people with glomerulonephritis do not have anyone else in the family with the condition. There are, however, some types of the condition which run very strongly in families. If one of these is diagnosed, the consultant will advise you on the chances of other family members being affected, and what screening is available.

### Further information

For further information or clarification, please contact the Renal Unit on 024 7696 7777.

### Sources of national information

#### National Kidney Federation

The Point, Coach Road, Shireoaks, Worksop, Nottinghamshire, S81 8BW  
Helpline: 0845 601 0209 Website: [www.kidney.org.uk](http://www.kidney.org.uk)

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact 024 7696 8257 and we will do our best to meet your needs.

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#### Document History

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