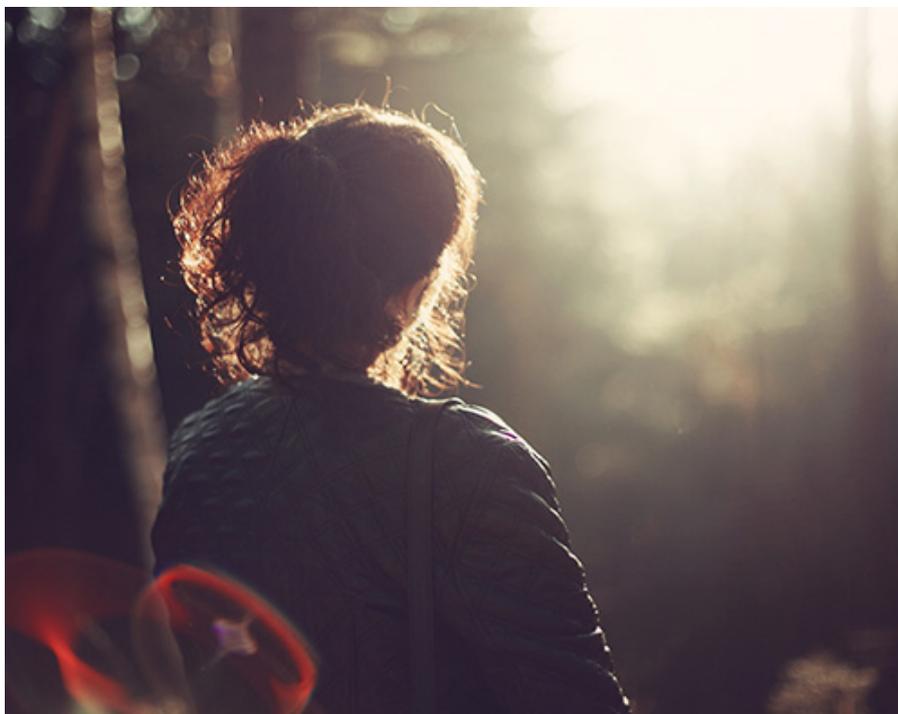


Glomerulonephritis: understanding your diagnosis

What does it mean if you get a diagnosis of glomerulonephritis? What are the different types, and what is the outlook? We interviewed leading consultant nephrologist Dr Christopher Lawrence:



What is glomerulonephritis?

Glomerulonephritis is a problem with the bundles of blood vessels in the kidney, known as **glomeruli**.

The kidney is a highly specialised organ which has a number of roles, the most obvious one being to clean the blood of the toxins produced in the course of everyday living.

Each kidney contains up to 750,000 tiny filters, composed of:

- a bundle of small blood vessels called a 'glomerulus'
- a urine concentrating system called a 'tubule'.

Glomerulonephritis means **inflammation** of the bundles of blood vessels in the kidney (the glomeruli). The inflammation usually occurs as a result of an overactive or misdirected immune system.

Glomerulonephritis is not just one disease – think of it more like a collective term for many distinct diseases. The problem for both patients and doctors is that most of these diseases are extremely rare, which can make reaching a diagnosis difficult!

What are the different types of glomerulonephritis?

We tend to distinguish the different types of glomerulonephritis by **how they look under the microscope** and **the results of blood tests we do**.

The commonest cause of glomerulonephritis worldwide is **IgA nephropathy** (which covers several different patterns of injury). The common feature here is that when a kidney biopsy is performed and the sample processed, the kidney stains positive for IgA (Immunoglobulin A).

IgA is a naturally occurring antibody which is mostly associated with barrier surfaces such as the skin, the gut and the tonsils. In the case of IgA nephropathy the body's immune regulation has broken down – and the IgA causes damage to the kidney.

Other causes of glomerulonephritis include:

- autoimmune diseases such as lupus and vasculitis
- post-infectious immune responses (from bacteria such as streptococcus, staphylococcus and E coli, as well as viruses such as hepatitis and HIV).

In rare cases, the glomerulonephritis can be inherited.

Just as there are many different patterns of kidney injury within the broad heading of IgA nephropathy so there are with other diseases. Lupus, for instance, may result in one or more of five different patterns of injury. Altogether, this results in a large number of injury patterns all falling under the umbrella term “glomerulonephritis”.

Acute and chronic glomerulonephritis

We also make a distinction between **acute** and **chronic** glomerulonephritis. These terms really refer to how rapidly the kidneys are damaged by the underlying process.

Acute glomerulonephritis can sometimes be an emergency condition. In some rare cases of glomerulonephritis, such as Goodpasture's Syndrome (Anti glomerular basement membrane (GBM) disease) the kidneys can be irreversibly and completely damaged within as little as one week. If caught early, however, the effects of acute glomerulonephritis may be reversible.

Chronic glomerulonephritis refers to a more indolent form of glomerulonephritis which causes kidney damage more slowly. Just because a condition is termed 'chronic' glomerulonephritis, it does not mean it can not result in kidney failure - but it would usually mean that the process is slower, and it might mean that treatments are less effective. Typically the rare forms of inherited glomerulonephritis might fall in to this category.

Treating glomerulonephritis

Treating glomerulonephritis is aimed at preserving or restoring kidney function, and attempting to halt the progression of the disease by tackling the underlying factors. Just as there are many types of glomerulonephritis, there can be a large variation in the right treatments from patient to patient.

You can read more about treating glomerulonephritis below:

[Read more: Treating glomerulonephritis](#)