

What are the complications of glomerulonephritis?

This varies according to the type of glomerulonephritis.

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

Disease in other internal organs - In many patients, glomerulonephritis affects only the kidneys. However, in some cases, the immune system that damages the kidneys can also affect other parts of the body, perhaps giving a blotchy red rash on the skin or some pain in the joints. Discuss any symptoms you may have with your doctor to see if they could be related to glomerulonephritis.

High blood pressure - This is a common complication of glomerulonephritis, because the kidneys control the level of blood pressure in the body. Many people with glomerulonephritis are prescribed blood pressure tablets. It is important to take these to protect the kidneys against further damage and also to reduce the risks of heart disease and stroke.

Is glomerulonephritis inherited?

Most people with glomerulonephritis do not have anyone else in the family with the condition. However, it is always worth asking your specialist if the type of glomerulonephritis you have could be inherited. It is simple to test people for glomerulonephritis with a urine test, so sometimes a specialist will advise checks on the family to be on the safe side. There are some types of glomerulonephritis that run very strongly in families, and if one of these is diagnosed the specialist will certainly advise about the chances of family members being affected, and how screening should be done.

The National Kidney Federation cannot accept responsibility for information provided. The above is for guidance only. Patients are advised to seek further information from their own doctor.

© 2010-2020 National Kidney Federation (NKF)
All rights reserved.

Last reviewed 19th October, 2017

KIDNEY MATTERS

Information from The National Kidney Federation supporting kidney patients, their friends & family

GLOMERULONEPHRITIS

QUESTIONS AND ANSWERS

- What is glomerulonephritis?
- What are the glomeruli, or filters, in the kidney?
- Why do the glomeruli, or filters, get damaged?
- What are the symptoms of glomerulonephritis?
- How is glomerulonephritis diagnosed?
- What are the different types of glomerulonephritis?
- What will happen in the long term?
- What is the treatment of glomerulonephritis?
- What are the complications of glomerulonephritis?
- Is glomerulonephritis inherited?

www.kidney.org.uk

The NKF - the largest Kidney Patient charity in the UK
A federation of more than fifty patient charities, supporting kidney patients & carers

NKF (National Kidney Federation)
The Point, Coach Road, Shireoaks, Worksop
Nottinghamshire, S81 8BW
Charity No 1106735 Company No 5272349 Reg. in England & Wales. Give as you earn contributions No CAF.GY511



www.kidney.org.uk

HELPLINE 0800 169 09 36



What is glomerulonephritis?

Glomerulonephritis is the name for a family of diseases which affect the kidney. Glomerulo- refers to the glomeruli, or the tiny filters in the kidney, and nephritis means inflammation in the kidney.

The remainder of this page explains what the glomeruli are, how they are damaged in glomerulonephritis, how the condition is diagnosed, and what problems might be expected in the long term.

What are the glomeruli, or filters, in the kidney?

Each kidney has about 1 million filters, each about the size of a pinhead. The glomerulus consists of a small ball of tiny blood vessels inside a bag, and the bag has a drainage tube running out of it. As blood passes through the glomerulus, some fluid is forced through the walls of the blood vessels, which are very thin and delicate, into the bag, which acts as a collecting space. This fluid then passes along the drainage tubes inside the kidney, which concentrate the waste products by removing excess water, so eventually producing urine. The urine then runs down to a funnel-like area in each kidney, and drains down to the bladder.

Why do the glomeruli, or filters, get damaged?

The glomeruli are very delicate structures and can become damaged quite easily.

Glomerulonephritis is a term most commonly used by doctors for a family of diseases where damage to the glomeruli is caused by the body's immune (natural defence) system.

The usual job of the immune system is to fight invaders into the body. These might be germs or bugs, or foreign objects such as splinters. The body recognises these invaders and tries to eliminate them from the body. The blood contains two main types of defence system. One is white blood cells, which stick to germs and kill them. The other type of defence is antibodies, which are smaller than the white blood cells and, by sticking onto germs, either make them burst apart or help the white blood cells

The immune system is very powerful and is normally very good at recognising what is part of the body and what is not. However, sometimes it makes a mistake and attacks the body as if that part of the body was an invader. There are many different diseases caused by the immune system, and they can affect any part of the body.

There are several kidney diseases caused by the immune system. Some of them affect only the kidneys, some can affect other parts of the body as well as the kidneys. It is not clear why the immune system causes diseases such as glomerulonephritis. There may be some trigger that makes the immune system go wrong, such as an infection. Often it is not known why glomerulonephritis occurs.

Many other conditions can cause the glomeruli to be damaged. High blood pressure or diabetes are common examples, so your kidney specialist will ask a lot of questions and perform lots of blood tests if glomerulonephritis is suspected.

What are the symptoms of glomerulonephritis?

Most commonly there are no symptoms, in other words someone with glomerulonephritis feels completely well. The only sign of damage to the glomeruli may be small amounts of blood or protein that have passed through the damaged filters into the urine, and can only be detected when tests are performed by a doctor or nurse.

Sometimes there can be greater loss of blood through the filters, so the urine turns red (blood in the urine is called haematuria). Sometimes there can be greater loss of protein through the filters, and the urine can become very frothy. There may also be retention of water in the body, called nephrotic syndrome.

In some cases the damage to the kidney can be so severe that there is kidney failure. That is, there is a build up of waste in the body because the kidneys are not removing the waste. Kidney failure may have no symptoms in its early stages but, in advanced cases, there may be tiredness, sickness, vomiting and itching.

How is glomerulonephritis diagnosed?

Doctors consider glomerulonephritis in anyone with kidney disease, but problems such as infection are much commoner. If glomerulonephritis is suspected, some blood tests will be performed to look for abnormal antibodies in the blood. However, it is not possible to make an accurate diagnosis in most cases by blood tests alone. To be sure of making a diagnosis, a kidney biopsy must be performed. A biopsy is the removal of a fragment of kidney to examine under the microscope. This test carries a small risk of bleeding, and not everyone with possible glomerulonephritis requires a biopsy.

What are the different types of glomerulonephritis?

There are many types of glomerulonephritis, and common examples are:-

- Focal and segmental glomerulosclerosis (FSGS)
- IgA glomerulonephritis
- IgM glomerulonephritis
- Membranoproliferative glomerulonephritis (also called mesangiocapillary)
- Membranous glomerulonephritis
- Minimal change nephropathy
- Vasculitis (including Wegener's granulomatosis)

What will happen in the long term?

Glomerulonephritis is commonly a minor illness, but many persist for many years. In some cases the condition clears up completely, but in others kidney failure may develop. A kidney biopsy can provide quite good information to help predict the outcome in individual cases.

What is the treatment for glomerulonephritis?

Treatment varies according to the type of glomerulonephritis. Some types of glomerulonephritis will respond to treatment that reduces the action of the immune system, but other types are very difficult to treat. Many treatments, because they attack the whole immune system and not just the abnormal part, can cause serious side effects.