

# Proteinuria

## (protein in the urine)

### Overview

This leaflet has an overview of this topic.

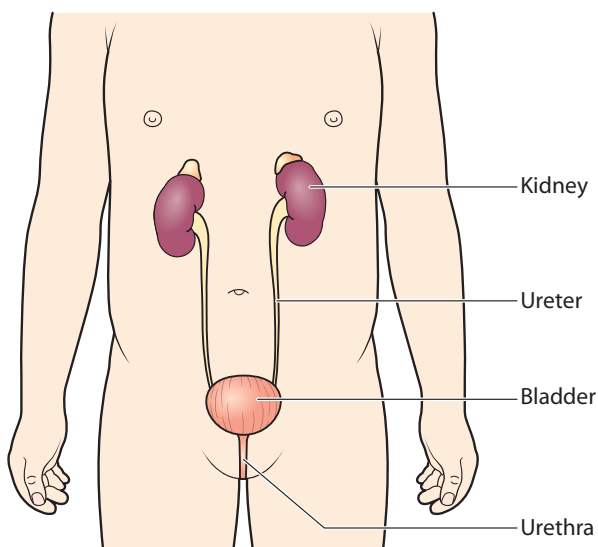
Go to [www.infoKID.org.uk](http://www.infoKID.org.uk) to find out more about this topic,  
or to find other topics for parents and carers about children's kidney conditions.

Proteinuria means there is more protein than normal in the urine (wee). Normally there is very little protein in the urine. Many children with proteinuria have no symptoms. Although all children who have proteinuria need tests, in many it goes away without treatment.

In a few children, the proteinuria is a sign of a problem with their kidneys, and these children may need special treatment.

The information covers:

- what proteinuria is
- what may cause proteinuria
- how your doctor can find out whether your child has proteinuria
- treatment that your child may need
- monitoring proteinuria, including testing your child's urine at home
- any long-term effects of proteinuria.



### About the urinary system

The **urinary system** gets rid of things that the body no longer needs, so that we can grow and stay healthy.

The **kidneys** are bean-shaped organs. They filter blood to remove extra water and waste in urine (wee). Most of us have two kidneys. They are at the back on either side of our spine (backbone), near the bottom edge of our ribs.

The two **ureters** are long tubes that carry urine from the kidneys to the bladder.

The **bladder** is a bag that stores urine until we are ready to urinate. It sits low down in the tummy area.

The **urethra** is a tube that carries urine from the bladder to the **outside** of the body.

## About proteinuria

**Proteinuria** means there is more protein than normal in the urine. It happens when the kidneys leak protein into the urine. **Protein** is an important part of our diet and is in most foods.

There are different types of proteins in the blood. The most common type is called **albumin**.

Often, only albumin is found in the urine – this is called **albuminuria**.

If there is only a very small amount of albumin in the urine, this is called **microalbuminuria**.

### How common is proteinuria?

Doctors have found proteinuria in about 2 or 3 out of 100 children of any age. In most children this is mild proteinuria that is harmless.

Almost 1 in 100 children have **persistent** proteinuria, which means that it continues over time. This may be more serious.

## Symptoms

Most children with proteinuria do not have any **symptoms**. You cannot usually see protein in the urine, but occasionally the urine looks frothy.

### Nephrotic syndrome

When the kidneys leak *a lot* of protein this is called **nephrotic-range proteinuria**. This causes **nephrotic syndrome**.

Children often have swelling in their body, especially their face, legs and feet.

### Haematuria

**Haematuria** means there is blood in the urine – if there is a lot, the urine may be red or dark brown. This is occasionally seen with proteinuria.

## Causes

Some children have protein in their urine only at certain times of the day, after exercise, or during a fever or urinary tract infection, when germs get into the urine and travel up the urinary system. In these cases, it is not serious.

A small number of children have large amounts of protein in their urine, or have **persistent proteinuria** – this may happen:

- with **nephrotic syndrome**
- with **renal dysplasia** (when one or both kidneys have not developed properly) and **reflux** (when urine goes back up towards the kidneys)
- because of another condition that affects the kidneys
- with high blood pressure (**hypertension**).

## Tests and diagnosis

Your child's doctor can **diagnose** (identify) proteinuria with a **urine test**. Proteinuria may be found during a urine test for another reason – for example, if your doctor thinks your child has another condition or during a routine health check. Your doctor will also speak with you and your child about his or her symptoms and examine your child.

If the first test shows there is protein in your child's urine, he or she will need more tests to help find out whether the proteinuria is serious.

Your child may need further tests, such as **blood tests**.

## Treatment

Many children will *not* need treatment. Some children will need to be monitored or treated, and may need to take medicines to reduce the amount of protein lost in their urine or control their blood pressure.

## About the future

For many children, proteinuria is mild and will go away in a few weeks without any treatment.

In a few children, proteinuria is a sign of kidney damage – for example, scars or inflammation. Often this damage is minor and their kidneys work normally. They may need to go back to hospital or clinic for occasional follow-up appointments.

A very small number of children will have long-term problems with their kidneys. These children may need further care. They will need to go back to the hospital or clinic for regular follow-up appointments.

» **Read more about proteinuria on [www.infoKID.org.uk](http://www.infoKID.org.uk)**

## Your notes and contact information

[www.infoKID.org.uk](http://www.infoKID.org.uk)



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