

Urinary tract infection (UTI)

Overview



infoKID

Information for parents and carers about children's kidney conditions

This infoKID topic summary is for parents and carers about children's kidney conditions. Please go to www.infoKID.org.uk to find out more about this topic or other topics.

A urinary tract infection (UTI) is a common infection that causes illness in babies and children. It happens when germs get into the urine (wee) and travel into the urinary tract. Some babies and children with UTIs may become irritable, have a fever, have pain when they wee, feel sick or be sick.

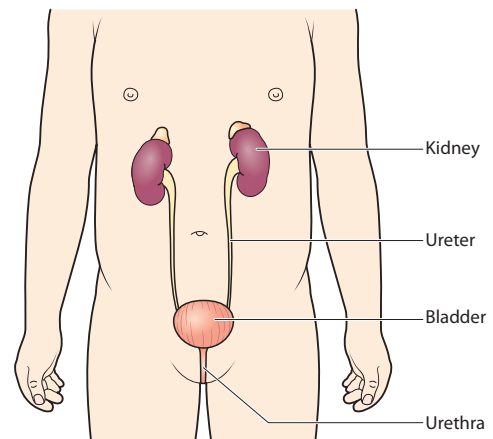
The information covers:

- what a UTI is, and what may cause it
- how your doctor can find out whether your child has a UTI
- treatment that your child may need
- how to help protect your child against UTI
- monitoring UTI, especially if it keeps coming back or the infection passes to the kidneys

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 (have a wee). 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.



Symptoms and signs

- Babies and young children with a UTI may have fever (temperature over 38°C), be sick (vomit), feel tired or irritable and not feed well.
- Older children with a UTI may have pain or a stinging/burning feeling when passing urine (**dysuria**), may need to go to the toilet more often than usual (**frequency**), or hold on because it is painful to go, or may wet themselves more often than usual.

→ If you think that your child may have a UTI, contact your doctor. If you cannot reach your doctor straight away, contact 111 or NHS Direct or your local out-of-hours GP service.

Causes

A UTI happens when bacteria (germs) get into the urine and travel into the urinary tract. This causes inflammation (swelling) in part of the urinary tract.

Types of UTI

- A **lower UTI** is an infection in the lower parts of the urinary tract. This is usually in the bladder, and is called **cystitis**.
- An **upper UTI** is an infection in the upper parts of the urinary tract, especially the kidneys. This is called **pyelonephritis**.

How common are UTIs in children?

UTI is a common infection in babies and children. It is more common in girls. It is estimated that:

- one out of 10 girls will have had a UTI by the age of 16 years
- one out of 30 boys will have had a UTI by the age of 16 years
- about one out of 50 babies and young children will have had a UTI by the age of 2 years.

Recurrent UTIs

Some children have **recurrent UTIs**, which keep coming back even after proper treatment.

These children often have other problems with their urinary system, such as **vesicoureteral reflux (VUR)**. As children with VUR urinate, some urine refluxes (goes back up) towards the kidneys. This makes it easier for germs that cause UTI to travel all the way up to the kidneys, where they cause a more serious infection and illness.

Tests and diagnosis

If you think that your child may have a UTI, take him or her to your doctor. Your doctor can find out whether your child has a UTI by doing a urine test and finding out about their symptoms.

Treatment

Your child's UTI will need to be treated with **antibiotics**, medicines that kill bacteria. Early treatment may reduce the likelihood of your child becoming acutely unwell and needing to be admitted to hospital.

Prevention

There are some things that you and your child can do that may help reduce the frequency of UTIs:

- encourage your child to go to the toilet regularly – every 3 to 4 hours during the day, before having a bath and before going to bed
- change your baby's nappies regularly
- help your child avoid constipation – speak with your doctor or nurse for more information
- make sure your child drinks plenty of fluids, especially water.

About the future

Children who are treated for UTIs with antibiotics usually get better. In most children, the UTI does not keep coming back, and there is very little risk of long-term problems.

A few children need to have follow-up appointments or further treatment.

Risk factors

If your child has any of the following, he or she may be at a higher risk for getting one or more UTIs. Tell your doctor if your child has:

- any problems when passing urine, or a poor urine flow
- fever (temperature over 38°C) that keeps coming back
- abnormalities of one or both kidneys found before or at birth
- a family history of **vesicoureteral reflux** or kidney disease
- constipation (difficulties doing a poo)
- history of **bladder dysfunction** (the bladder does not completely empty when passing urine), such as neuropathic bladder
- an injury in the spine (backbone)
- poor growth
- high blood pressure (**hypertension**).

More about this topic on www.infoKID.org.uk



© BAPN and Kidney Care UK 2013-2022, all rights reserved

For details on any sources of information used in this topic, please contact us through our website www.infoKID.org.uk.

We take great care to make sure that the information in this leaflet is correct and up-to-date. However, it is important that you ask the advice of your child's doctor or nurse if you are not sure about something. This information is intended for use in the United Kingdom, and may not apply to other countries.

The British Association of Paediatric Nephrology (BAPN), Kidney Care UK and the contributors and editors cannot be held responsible for the accuracy of information, omissions of information, or any actions that may be taken as a consequence of reading this information.