

# Urinary tract infections in children

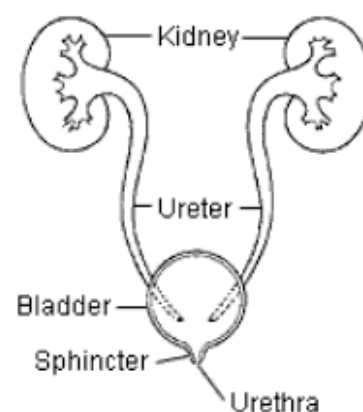
This leaflet is for parents or carers and explains what a urinary tract infection (UTI) is, how the infection is confirmed and treated, and gives you some helpful suggestions to aid your child's recovery at home and prevent further infections.

If you have any questions or concerns that are not answered in the leaflet, please speak to one of the nursing staff.

## Understanding the urinary tract

There are two kidneys, one each side of the abdomen. They make urine, which drains down the ureters into the bladder. Urine is stored in the bladder and is passed out through the urethra from time to time when we go to the toilet.

*Front view of urinary tract*



## What is a urine infection?

A urine infection is caused by bacteria (germs) that get into the urine. Most are due to the normal bacteria that live in your bowel. They cause no harm in the bowel but can cause infection if they get into other parts of your body.

Some bacteria lie around the anus (back passage) after passing faeces (a stool). These can sometimes travel to the urethra and into the bladder. Some bacteria thrive in urine and multiply quickly to cause infection.

The infection is commonly just in the bladder (cystitis) but may travel higher up to also affect the kidneys. A urine infection is often called a 'urinary tract' infection (UTI) by doctors. Nearly 1 in 20 boys and more than 1 in 10 girls have at least one urine infection by the time they are 16 years old.

## What are the symptoms of a urine infection?

Young children and babies can have various symptoms, which may include one or more of the following:

- Fever (high temperature)
- Irritability – just not right
- Vomiting and or diarrhoea
- Drowsiness
- Crying, going off feeds and generally unwell
- Abdominal pain
- Blood in urine (uncommon)

- Older children may complain of pain when they pass urine and pass urine frequently – the common symptoms of cystitis. An older child may also complain of a pain in a loin (side of the abdomen over the kidney) if a kidney becomes infected.
- Bedwetting in a previously dry child is sometimes due to a urine infection.

### **How is a urine infection confirmed?**

A sample of urine is needed to confirm the diagnosis. Urine is normally sterile (no bacteria present). A urine infection is confirmed if bacteria are found in the sample.

Ideally, the sample of urine should not come into contact with skin or other materials that may contaminate it with other bacteria. Adults and older children can do this by a 'mid stream' collection of urine.

The following are ways to get a sample of urine that is not contaminated:

#### **Getting a sample from young children**

One way is to catch some urine in the specimen bottle whilst in full flow. Just be ready with the open bottle as the child passes urine (be careful not to touch the open rim of the bottle with your finger as this may contaminate the specimen with bacteria from your fingers).

#### **Getting a sample from babies**

1. Take the nappy off about 1 hour after a feed.
2. Wash genital area carefully with soap and water.
3. Tap gently with a finger (about once a second) just above the pubic bone (this is the bone at the bottom of the abdomen above the genitals)
4. Have ready the open bottle. Often, within five minutes, the baby will pass urine.
5. Try and catch some in the bottle.

**If your child has symptoms of a UTI, take a specimen to your GP, who will test it and treat it if necessary.**

### **What is the treatment of a urine infection in children?**

- A course of antibiotics will usually clear the infection. Your doctor will tell you how long your child needs to take antibiotics for. Please ensure your child finishes the course.
- Give lots to drink to prevent dehydration.
- Give paracetamol or Ibuprofen liquid to ease any pains and fever (high temperature).

### **How can I prevent further infections?**

It is not always possible to prevent infections but it is important to make sure that your child drinks plenty and goes to the toilet when they need to and does not try to 'hold on' for a long time. It is also very important to avoid your child becoming constipated and if they have difficulty opening their bowels you should see your GP for some laxative medicine.

## Will my child need any tests?

Many children who just have a single UTI which gets better quickly will not need any tests. If your child has an infection when they are very young; an infection which is caused by an unusual bacteria; an infection which doesn't get better quickly with antibiotics, then they may need some tests. They may also need some tests if they have recurrent UTIs. Your doctor will discuss with you what tests your child should have. The NICE guideline on Urinary Tract Infections in Children is a national guideline that states what tests a child should have and we follow this.

## What tests may be needed?

- An **ultrasound scan** of the kidneys is the most common test. This looks at the size and shape of the kidneys and bladder and may pick up small scars.
- A **DMSA scan** is a scan which is done to look in detail for scars on the kidneys and also look at how much work each kidney is doing. A chemical called dimercaptosuccinic acid (DMSA) is used.
- **Micturating cystourethrogram (MCUG)** – this scan is done to look for 'reflux' where the urine goes back up towards the kidney instead of down out the bladder when a child passes urine. If your child needs this he/she should have three days of antibiotics, starting the day before the test and finishing the day after.

Please ask your doctor for details of each test.

## Why is it important to identify and treat UTIs quickly?

Most children will recover completely from their UTIs and suffer no long term problems. A small number of children may have or may develop scarring on their kidneys which can cause high blood pressure or kidney damage later in life. This is rare but it is important to treat urine infections quickly to try and avoid this. It is also important to know if your child does have any scarring so that they can have their blood pressure checked yearly and identify any other treatment they may need.

## Contacting us

If you require any further advice, please contact:

**Kempton Day Bed Unit:** 0118 322 7512 / 8754 (Mon-Fri 7am-7pm)

**Lion/Dolphin Wards:** 0118 322 7519 / 8075 (outside of these hours)

To find out more about our Trust visit [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

**Please ask if you need this information in another language or format.**

RBFT Paediatric Unit, November 2022.

Next review due: November 2024

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