

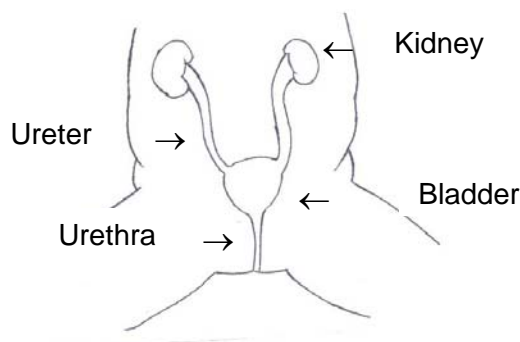
Children's Services

Parent Information Leaflet

Urinary Tract Infection

What is a urinary tract infection?

A urinary tract infection ('UTI') is an infection in the body's urinary tract ('water works'). The urinary tract includes the parts of the body that are involved in making and passing urine, that is, the kidneys (which make urine), ureters (that take urine from the kidney to the bladder), the bladder (which stores urine) and urethra (the tube which carries urine from the bladder to outside of the body). These are shown in the diagram below:



What causes a urinary tract infection?

Urinary tract infection occurs when germs from outside the body enter the bladder, multiply and cause an infection. In some cases the germs will move up, out of the bladder and towards, or into, one or both of the kidneys.

Is a urinary tract infection important/serious?

Urinary tract infections can make children feel very ill with vomiting, abdominal pains and high temperatures. If infections enter the kidney, the infection can cause a scar to form on the kidney. This scarring is permanent. Scars on kidneys can cause problems with how well the kidney functions and with high blood pressure. It is therefore very important that urinary tract infections are treated without delay to prevent these scars occurring.

Urinary tract infections are also important because they can be an indicator of a problem (abnormalities) within the urinary tract. Abnormalities can be a risk factor for future problems, for example further infections.

How will I know if my child has a urinary tract infection?

Symptoms of a urinary tract infection vary with age. Your child may have a UTI without having the fishy smell and burning pain that adults get. In babies and young children, urinary tract infections can have very non specific signs. If your child has a temperature without an obvious reason (such as cold/cough) you should collect a urine specimen so that a UTI can be ruled out.

Symptoms in infancy: High temperature (fever)
Tiredness
Irritability
Poor feeding
Smelly nappies
Vomiting
Abdominal pain ('tummy ache')

Symptoms in childhood: High temperature (fever)
Increased frequency of passing urine
Tiredness
Vomiting and/or diarrhoea
Being off their food
Abdominal pain ('tummy ache')
Back pain
Bed wetting when previously dry
Smelly or bloody urine
Pain when weeing

How will a urinary tract infection be confirmed ('diagnosed')?

A sample of your child's urine will need to be collected to look for signs of infection and dehydration.

How will the urine sample be collected?

How the urine sample is collected will depend on your child's age and how ill he/she is. The following describes the most common ways:

Age of child:	Method:	Description:
Older child who is toilet trained:	Mid stream urine collection:	<ul style="list-style-type: none"> • Child's genitalia is cleaned with warm soapy water. • Child begins to wee into the toilet. • Part way through passing urine the urine is collected in a sterile container. • The last part of the wee is passed into the toilet.
Non toilet trained child:	'Clean catch collection' (Preferred method as associated with less risk of contamination from poo/skin)	<ul style="list-style-type: none"> • Child's genitalia is cleaned with warm soapy water. • Part way through passing urine the urine is collected in a sterile container which is being held under (but not actually touching) the child.
	Urine collection bag	<ul style="list-style-type: none"> • Child's genitalia is cleaned with warm soapy water and dried. • A special collection bag is stuck over the child's urethral opening. • When urine enters the bag the bag must be removed promptly. • The urine is transferred from the bag into a sterile container. • If faeces ('poo') contaminates the sample, the collection process must be started again.
Very ill children or for those in whom it has been difficult to catch a urine sample	Urine specimen collection from a urinary catheter	<ul style="list-style-type: none"> • Child's genitalia is cleaned with a water solution called 'saline'. • A small tube called a catheter is inserted into the bladder through the urethra by a nurse or doctor. • The urine drains down the tube and is collected in a sterile container. • The catheter is then removed.
	Urine specimen collection from a supra pubic aspirate	<ul style="list-style-type: none"> • Child's skin on their lower abdomen ('tummy') is cleaned with a solution to sterilise the skin. • A needle is passed though the child's skin directly into the bladder. • Urine is drained straight into the sterile container and the needle is then removed.

Collecting a urine sample from a child who is not toilet trained can be difficult and frustrating but is also very important. Using a urine collection bag may seem simpler. However, this method can become easily contaminated and the results are then not accurate so mid stream or clean catch samples are better. Your nurse or health visitor can help you learn more about this.

How will my child's urinary tract infection be treated?

In babies and children who are unwell, your doctor will not wait for the laboratory results to become available (this can take 48 hours) but will start treatment straight away with antibiotics. It may be necessary to change the antibiotic after 48-72 hours if your child is showing no improvement or occasionally, if the laboratory results show that a different antibiotic would be better.

To clear the infection it is very important that your child takes all the antibiotic medicine exactly as it is prescribed.

How will I know that the urine infection has gone ('cleared')?

In most children, the fact that the child has improved is sufficient to say that the infection has cleared. In a few children (for example those with known abnormalities in the renal tract) it is important that a urine sample is collected and sent to the laboratory after the antibiotics have finished to make sure that the urine infection has been completely cleared. In these cases it is best if this is sent three days after the antibiotics have all been given. If any traces of infection are found, the infection can come back again.

Will my child need other tests?

Doctors recommend that children who have had a urinary tract infection before their 1st birthday should have an ultrasound scan of their kidneys, ureters and bladder. This is because urinary tract infection can be the first clue given to the presence of an underlying physical problem (abnormality) within the urinary tract. If any abnormality on the ultrasound scan is found, or, if unusual bacteria are found, other tests and investigations may be needed. (Separate information leaflets are available on these tests; please ask for one if additional tests are arranged for your child).

If the child is over one year of age, usually, no investigations are necessary unless the infections are recurrent or unusual bacteria are found.

What can I do to prevent my child getting another urinary tract infection?

- Ensure your child drinks plenty of fluids throughout the day so they wee more frequently and their urine is more dilute (lighter in colour). Drinks should preferably be water/water based (such as weak squash) rather than tea/coffee/fizzy drinks.
- Include a glass of cranberry juice in your child's diet every day.
- Ensure your child goes to the toilet to empty their bladder regularly (for example, on waking, mid morning, lunch time, mid afternoon, tea time and before bed).
- Change babies' nappies regularly.
- If you have a girl, teach to wipe from front to back after she goes to the toilet so that germs from her bottom (anus) do not enter her urethra.
- Bath your child regularly and dry thoroughly afterwards.
- Avoid scented soaps, bubble baths and washing your child's hair whilst they are in the bath.
- Encourage your child to wear only cotton underwear.
- Ensure your child has a healthy diet.
- It may help to include a bio yogurt as part of your child's diet which increases 'good bacteria'.
- Constipation should be prevented. Ensure your doctors are informed if your child has constipation as this may need treatment.
- Follow the advice given to you about antibiotic treatments.
- Your doctors may decide that, to help prevent infection, your child needs to have a 'prophylactic dose' of antibiotic. This is a smaller dose of antibiotic given than when your child actually has an infection and is used to try and prevent an infection actually occurring. This prophylactic antibiotic should be given at bedtime.

Follow up:

This leaflet has discussed why it is important to recognise, treat and prevent urinary tract infections in childhood. Some children, for example those with severe or recurrent infection, will need a 'follow up' review. If this is to take place in the hospital as an outpatient, the appointment will be sent to you in the post so it is important that we have up to date details of your home address. (Sometimes follow up may be via your GP).

For further information please contact:

Name:	Contact No:



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For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169

Help with this leaflet:



If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or

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Document history

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