

## How is UTI treated?

Your child will need to complete a full course of antibiotics either orally or via injection through a vein as determined by your doctor. A follow-up appointment will be arranged thereafter. Imaging studies will be recommended if there is a need at a later date.

If you have any further questions, please approach your doctor or nurse.

## Other Instructions

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The information provided in this publication is meant purely for educational purposes and may not be used as a substitute for medical diagnosis or treatment. You should seek the advice of your doctor or a qualified healthcare provider before starting any treatment or if you have any questions related to your health, physical fitness or medical condition.

## About the Khoo Teck Puat – National University Children's Medical Institute (KTP-NUCMI)

The KTP-NUCMI is the paediatric arm of the National University Hospital and comprises the Departments of Paediatrics, Paediatric Surgery and Neonatology. We provide comprehensive and specialised medical and surgical services for newborns, children and adolescents. NUH is the only hospital in Singapore that offers paediatric kidney and liver transplant programmes. Through a generous gift from the Estate of Khoo Teck Puat, we have set up an integrated outpatient facility with medical, diagnostic and rehabilitation services.

For more information about us, visit [www.nuh.com.sg/ktp-nucmi](http://www.nuh.com.sg/ktp-nucmi).

### Contact Us

#### 24-hour Children's Emergency

Location: NUH Main Building, Zone F, Level 1  
General Enquiry: +65 6772 5000

#### KTP-NUCMI

Location: NUH Main Building, Zone E, Level 2  
(Accessible via Kent Ridge Wing, Zone C, Level 2, Lift Lobby C)  
Operating Hours: 8.30am – 5.30pm (Mon to Fri), 8.30am – 12.30pm (Sat)  
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#### 9a Viva-University Children's Cancer Centre

Location: NUH Medical Centre, Zone B, Level 9  
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Email: [cbccappt@nuhs.edu.sg](mailto:cbccappt@nuhs.edu.sg)

#### NUH Children's Urgent Care Clinic @ Bukit Panjang

Location: Junction 10, 1 Woodlands Road, #01-22, Singapore 677899  
Operating Hours: 9am – 11pm daily (including public holidays)  
General Enquiry: +65 6219 1538 Email: [childrenucc@nuhs.edu.sg](mailto:childrenucc@nuhs.edu.sg)  
Website: [www.nuh.com.sg/ucc](http://www.nuh.com.sg/ucc)

#### NUH Child Development Unit @ JMC

Location: Jurong Medical Centre,  
60 Jurong West Central 3, Level 2, Singapore 648346  
Operating Hours: 8.30am – 5.30pm (Mon to Fri)  
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Email: [cdu@nuhs.edu.sg](mailto:cdu@nuhs.edu.sg) Website: [www.nuh.com.sg/cdu](http://www.nuh.com.sg/cdu)

#### NUH Child Development Unit @ Keat Hong

Location: Keat Hong Community Club,  
2 Choa Chu Kang Loop, #03-01, Singapore 689687  
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Appointment Line: +65 6769 4537/4637 Fax: +65 6665 0158  
Email: [cdu@nuhs.edu.sg](mailto:cdu@nuhs.edu.sg) Website: [www.nuh.com.sg/cdu](http://www.nuh.com.sg/cdu)

#### National University Hospital

Location: 5 Lower Kent Ridge Road, Singapore 119074  
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Information is correct at the time of printing (April 2023) and subject to revision without prior notice.

# Urine Sample Collection



Khoo Teck Puat – National University  
Children's Medical Institute

# Why do we need a sample of your child's urine?

Your doctor has requested for a sample of your child's urine to determine if he or she has a urinary tract infection (UTI). If your child has shown signs or symptoms suggestive of a UTI, a urine test is required to confirm the diagnosis.

UTI can cause both short and long term complications if not diagnosed and treated properly. Hence, an accurate diagnosis is necessary to ensure appropriate treatment and follow-up.

## How do we diagnose UTIs?




UTI is diagnosed by testing a clean sample of your child's urine. First, a screening test called a urine dipstick is done. If the test suggests a UTI, a clean urine sample will be sent to the laboratory for a urine microscopy test to check for the presence of white blood cells. A urine culture will be used to examine the type of bacteria causing the infection. The latter two tests are vital in confirming the diagnosis of a UTI.

## How will your child's urine sample be collected?

In an infant or young child, a urine bag is often used to obtain an initial urine sample for screening. Should the screening test be positive, a clean sample of urine via in-out catheterisation is required for an accurate diagnosis of a UTI. For older children, a clean-catch urine sample may be sufficient.

Please refer to Table 1 for more information on the various methods of urine collection.

**Table 1**

	Urine Bag	In-Out Catheterisation	Clean-Catch
			
<b>What to Expect</b>	<ol style="list-style-type: none"> <li>1. A nurse will clean and dry your child's perineal or genital area before pasting a urine collection bag over.</li> <li>2. When a sufficient amount of urine is collected in the bag, it will be sent for the screening test.</li> </ol>	<ol style="list-style-type: none"> <li>1. A doctor will clean your child's perineal or genital area using sterile technique.</li> <li>2. The smallest-sized tube, appropriate for your child, will be coated with a lubricant gel and inserted into his or her urethra – an opening where urine flows out.</li> <li>3. Once a sufficient amount of urine has been collected, the tube will be taken out immediately.</li> </ol>	<ol style="list-style-type: none"> <li>1. A nurse will teach you how to clean your child's perineal or genital area.</li> <li>2. As your child passes urine, use the collecting cup to directly catch the midstream flow of his or her urine. The first and last part of his or her urine should not be collected.</li> <li>3. Ensure that the cup does not touch your child's skin.</li> </ol>
<b>Pros</b>	<ul style="list-style-type: none"> <li>• This is a non-invasive method.</li> </ul>	<ul style="list-style-type: none"> <li>• This provides the least contaminated urine sample for the accurate diagnosis of UTI.</li> <li>• It is a quick way to obtain a urine sample.</li> </ul>	<ul style="list-style-type: none"> <li>• This is the easiest and non-invasive method of collection for a toilet-trained child.</li> <li>• It provides a urine sample that can accurately diagnose UTI especially in an older child.</li> </ul>
<b>Cons</b>	<ul style="list-style-type: none"> <li>• You may need to wait for a long period of time before your child decides to pass urine.</li> <li>• The urine may leak out of the bag causing insufficient amount of urine for testing.</li> <li>• This procedure only collects an initial urine sample for the screening test. If the test returns positive, your child will need to proceed with an in-out catheterisation to confirm the diagnosis.</li> </ul>	<ul style="list-style-type: none"> <li>• This procedure may be a little uncomfortable but is not painful.</li> <li>• There may be some transient redness or occasional spotting of blood around the urethral opening. This condition will resolve quickly.</li> <li>• There may be an insufficient amount of urine collected if the bladder is not full. In such cases, the tube may be left in until sufficient sample is obtained.</li> </ul>	<ul style="list-style-type: none"> <li>• The urine sample may be contaminated if the perineal or genital area is not cleaned properly or if the urine is not collected properly.</li> </ul>