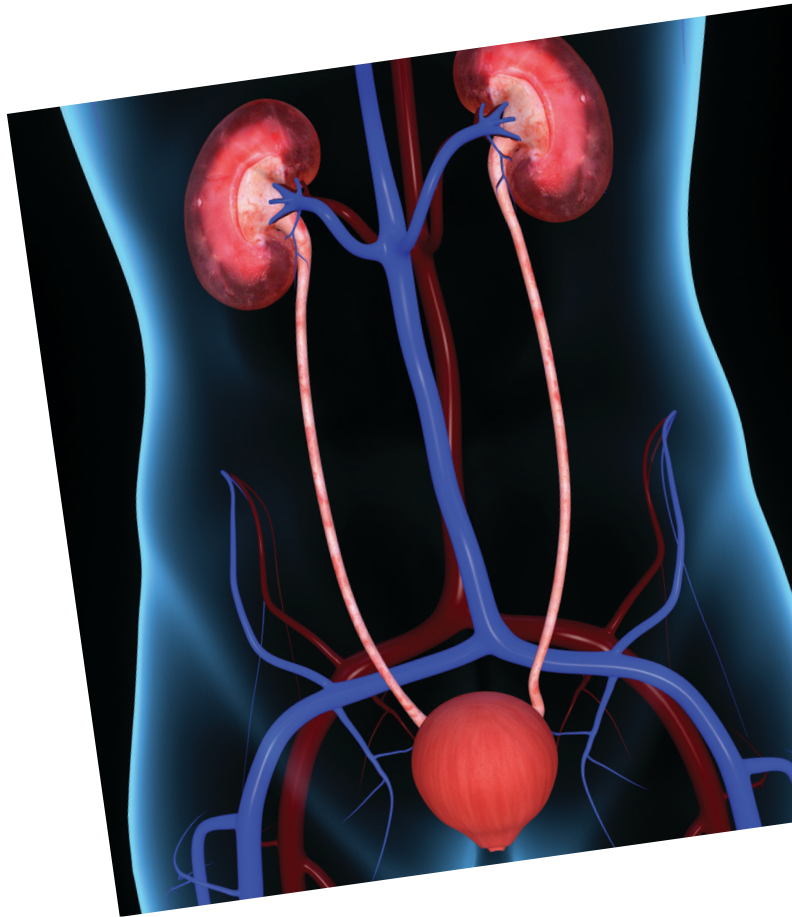


Treating Kidney and Ureteral Stones

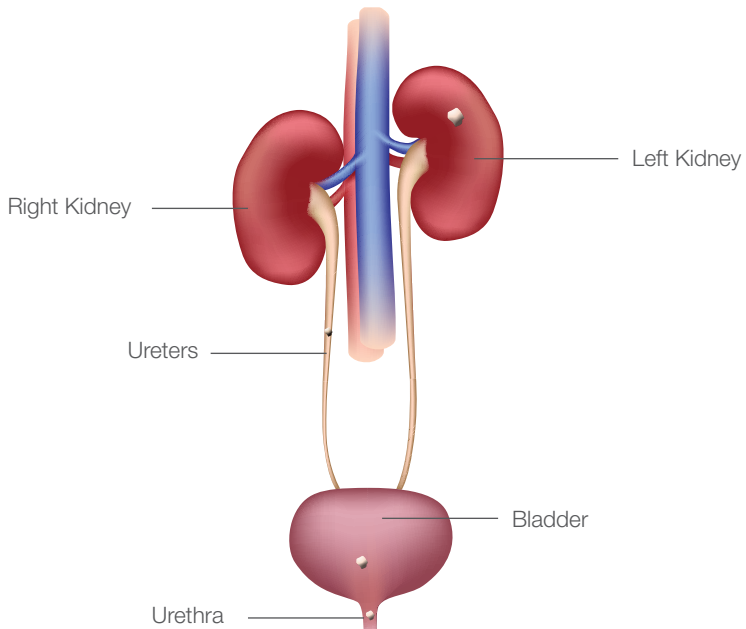


The Urology service offers a comprehensive range of adult urologic care to patients, including advanced diagnostic, medical and surgical care for men and women. Our team of specialised urologists offer individualised care on general urological conditions, urologic cancers (bladder, kidney, penile, prostate and testicular), urinary stone disease, urinary tract infection, prostate diseases (benign prostatic hyperplasia and prostatitis), urinary incontinence for males and females, male infertility and blood in the urine (haematuria).

This brochure shares with you the different treatment options available after a diagnosis of a kidney or ureteral stone.

To determine a suitable treatment for you, consider the following and discuss with your doctor on the best treatment approach:

- Your symptoms
- Stone characteristics
- Your medical history
- Personal preferences and values



Possible location of stones in the urinary tract

Not all kidney or ureteral stones require treatment. Treatment is recommended when the stone causes you discomfort or affects the way you pass urine. Your doctor will consider these symptoms and other pre-existing medical conditions in diagnosing a suitable treatment for you.

There are different types of treatment for emergency and non-emergency conditions.

Emergency conditions

Acute Renal Colic

Renal colic is an acute and painful situation that is caused by a stone blocking the ureter.

Pain can usually be relieved by prescribing medications.

If they do not work, your doctor may use a method known as decompression to drain the urine from your kidney.

There are two methods of decompression:

- Placing a ureteral JJ-stent in your ureter through your urethra (*Fig. 1*)
- Inserting a percutaneous nephrostomy tube into your kidney directly through the skin (*Fig. 2a and 2b*)

Both methods are equally effective.

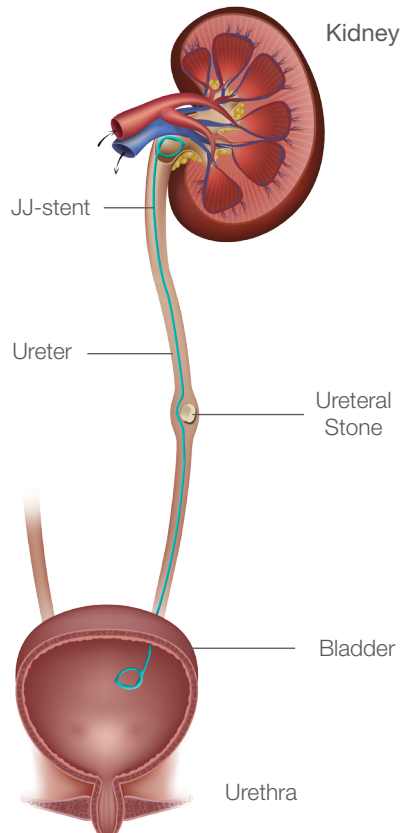
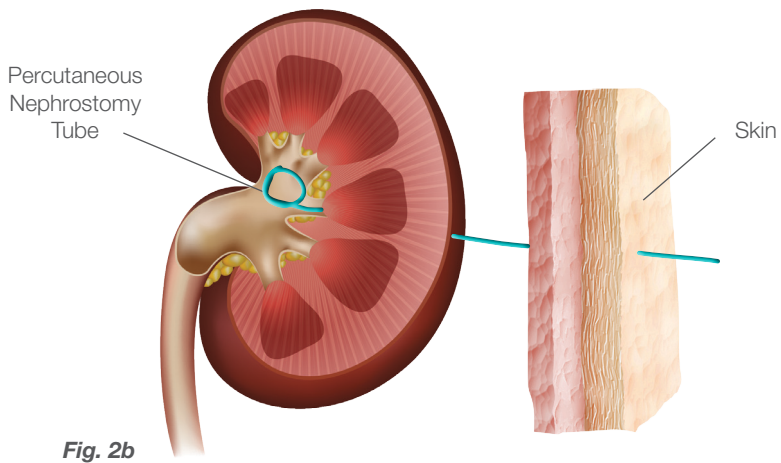
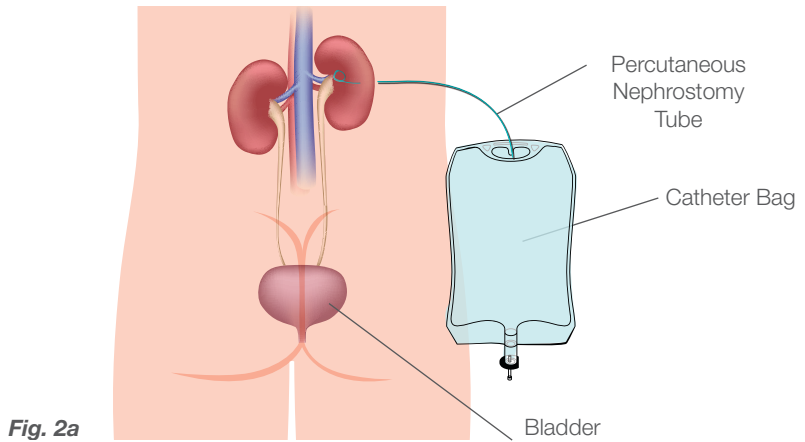


Fig. 1



Obstructed and Infected Kidney

If you have renal colic, fever, or feel unusually tired, please visit the nearest urological department in a hospital to have your blood and urine checked. You may have an infected and/or obstructed kidney. Immediate decompression can be done to relieve the pressure in your kidney.

You will also be prescribed antibiotics after decompression to clear the infection. After infection has subsided, the stone may be removed.

Non-emergency conditions

If a kidney or ureteral stone does not cause you discomfort, your doctor will monitor your condition regularly to make sure it does not worsen. Your doctor will also advise on further follow-up.

If the stone in your kidney can be passed out with your urine, your doctor may prescribe drugs to ease the process. This is known as a conservative treatment.

If the stone continues to grow or causes frequent and severe pain, active/surgical treatment will be used.

Conservative Stone Treatment

Most kidney or ureteral stones will pass out of the body when you urinate. Depending on the size and location of the stone, the time it takes will vary. Renal colic occurs when the stone moves. If you have a very small stone, there is a 95% chance it will be passed out within six weeks.

- The closer the stone is to the bladder, the higher the chance of being passed out
- The bigger the stone, the smaller the chance of being passed out

Medical Expulsion Therapy

Your doctor will sometimes prescribe drugs (i.e. alpha-blockers or nifedipine) to help the stone pass out sooner. This method is known as a Medical Expulsion Therapy (MET). It is the most effective treatment for small ureteral stones.

If you wish to have MET, please discuss with your doctor on the possible side effects before proceeding.

You will be monitored regularly to check if your stone has moved and if your kidneys are functioning well.

MET is not recommended for people in great pain, having an infection or individuals with malfunctioning kidneys or large stones.

Dissolving the Stone

If you suffer from uric acid stones, the stone can be dissolved by increasing the pH-value of your urine. At a pH-level of 7.0 to 7.2, stones reduce in size and can even dissolve completely.

Active Stone Treatment

Kidney or ureteral stones should be treated if they cause symptoms.

Treatment:

- Heals an infection
- Prevents the stone from growing
- Reduces the risk of another stone from forming
- Reduces the risk of kidney damage
- Removes very large stone(s)
- Supports active treatment

Your doctor will recommend removing a stone in the ureter if:

- It seems too big to pass out with your urine
- You feel pain even with medication
- Your kidneys have stopped or may stop functioning properly

For more information

Ng Teng Fong General Hospital and Jurong Community Hospital

1 Jurong East St 21, Singapore 609606

www.ntfgh.com.sg | www.jch.com.sg

Clinic opening hours

Monday – Friday: 8.30am – 5.30pm

Saturday: 8.30am – 12.30pm (Selected clinics only*)

Dental Clinic: Monday – Thursday: 8.00am – 5.30pm, Friday: 8.00am – 5.00pm

*Please refer to our websites for more details.

General enquiries & appointments

General enquiries line: 6908 2222 (24-hr)

Fax: 6716 5500 | Email: contactus@nuhs.edu.sg

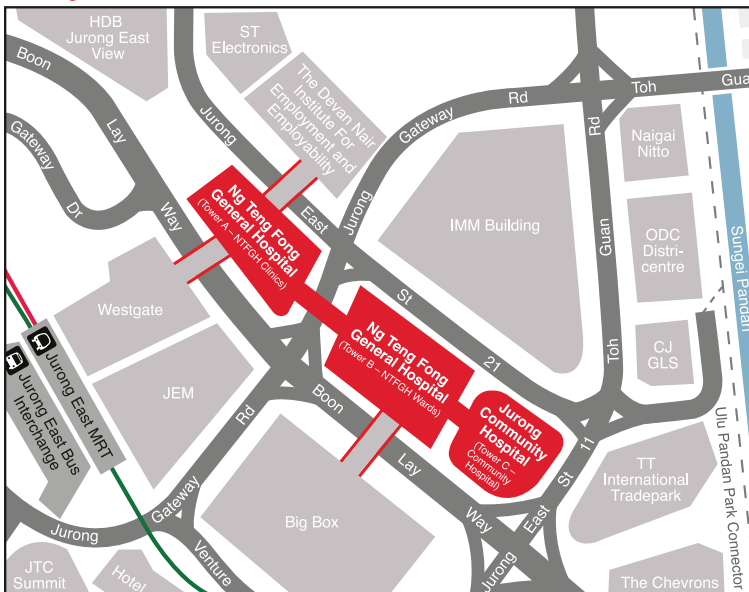
Appointment line: 6908 2222 (Monday – Friday: 8.00am – 5.30pm, Saturday: 8.00am – 12.30pm)

Fax: 6716 2200 | Email: appointment@nuhs.edu.sg

Dental appointment line: 6716 2233 (Monday – Friday: 8.00am – 5.30pm)

Fax: 6716 2200 | Email: JHCampus_Dental@nuhs.edu.sg

Getting there



By train

Alight at Jurong East MRT Station

By bus

Jurong East Bus Interchange

41, 49, 51, 52, 66, 66B, 78, 78A, 79, 79A, 97, 97E, 98, 98M, 105, 143, 143M, 160, 160A, 160M, 183, 183B, 197, 333, 334, 335, 506

Along Boon Lay Way

49, 99, 333, Private bus service 625, 990

Disclaimer:

The information in this brochure is meant for educational purposes and should not be used as a substitute for medical diagnosis or treatment. Please seek your doctor's advice before starting any treatment or if you have any questions related to your health, physical fitness or medical condition. Information is accurate at the time of printing.