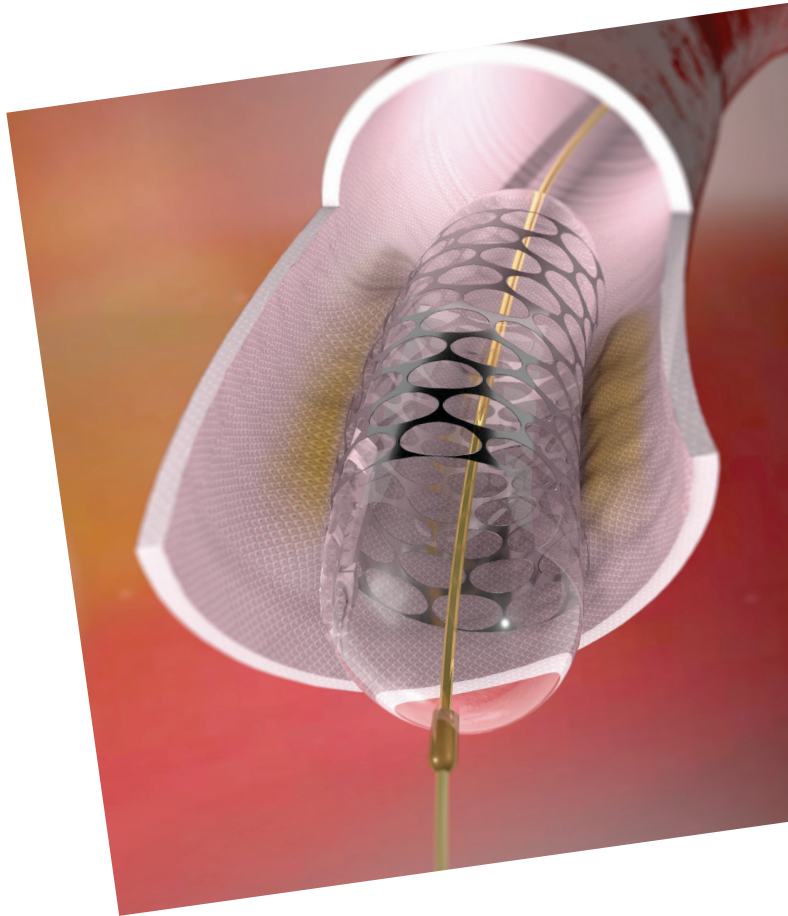


# Angioplasty and Stenting



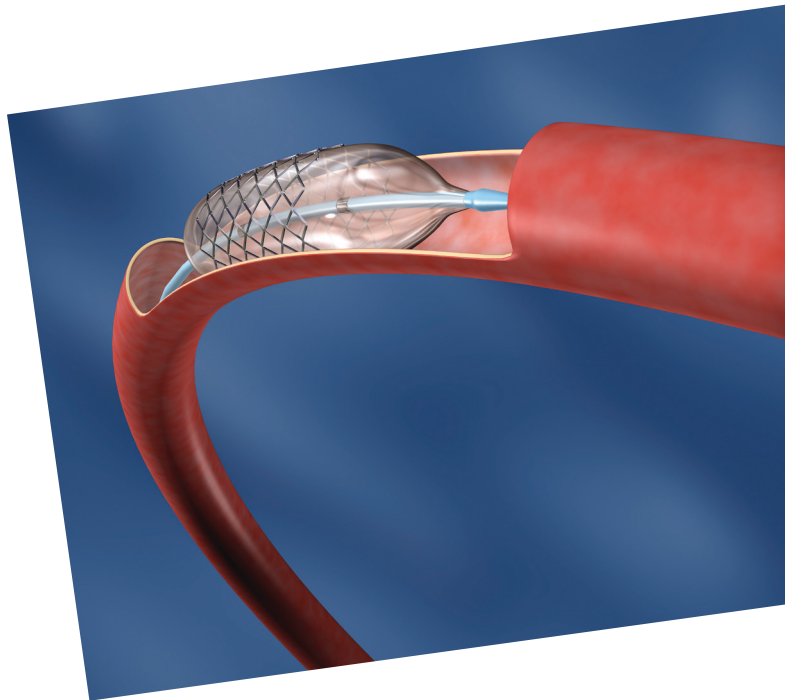
The Department of Surgery sees patients for a wide range of surgical services. These include Colorectal, Endocrine, Breast, Upper GI, Bariatrics, Hepatobiliary, Plastics, Neurosurgery, Urology and Vascular Surgery. Our highly qualified consultants use minimally-invasive surgery and surgical endoscopy for diagnostic and therapeutic interventions in the treatment of these conditions. We provide inpatient and outpatient care with a 24-hour acute surgical service. Day surgery (endoscopy) and minor surgery (lumps and bumps) are also offered at Jurong Medical Centre.

## What is Angioplasty?

When the arteries in our body narrow or become blocked, our blood circulation is affected and muscle pain, ulcers and tissue damage (gangrene) may develop.

If you were informed that your arteriovenous fistula or graft is narrowing, your blood flow may worsen overtime to cause inefficient haemodialysis.

Angioplasty is a procedure that treats the narrowing or blocking of an artery. Using a small inflatable balloon to stretch the artery (angioplasty) or an implantable metal scaffold (stent) to hold the artery open, the flow of blood is improved to relieve patients of their symptoms.



## **Do I need to be hospitalised?**

In patients with minimal co-morbidities, this procedure can be done as a day surgery.

However, in patients with more complex medical conditions, it is preferable for them to stay overnight.

## **How do I prepare for surgery?**

Before surgery, do let your doctor or nurse know if you are allergic to any medications, or if you are taking Metformin (diabetes) or Warfarin (blood-thinning medication). You may need to stop taking them before the procedure. Please inform our staff if you are asthmatic.

## **What does surgery involve?**

Angioplasty and stenting is performed in a Hybrid Operating Theatre by a Vascular Surgeon or in the Radiology Department by an Interventional Radiologist.

You will be sedated and given painkillers to relax. Local anaesthetic will be injected to numb your skin so that you feel minimal pain. A small plastic tube (sheath) is placed into the vessel. It is normal to feel slight discomfort as this is done.

An X-ray dye (contrast) is injected via the tube into the vessel to capture pictures of your circulation. You may feel warm sensations as this is done, but it is normal and not a cause for alarm. Under X-ray guidance, a fine wire is then passed across the narrowed or blocked vessel. A special tube with a small balloon is positioned at the area of narrowing and as the balloon inflates, your vessel will be stretched.

The balloon is then deflated and removed. Further pictures will help your doctor determine if angioplasty was successful.

In some circumstances, angioplasty alone is unable to improve blood flow and your doctor may suggest placing a stent in the blood vessel. This stent cannot be removed once it is inserted and will eventually be covered by the blood vessel's lining.

Angioplasty and stenting usually lasts between 30 minutes to several hours. This will depend on the complexity of each case.

At the end of the procedure, your doctor will remove the sheath and apply pressure over the small hole in the vessel to seal it. It is important for you to lie still for the next few hours to avoid any risk of bleeding from the punctured hole.

Hospitalisation is required for a few hours after the procedure. Depending on your condition, our team will advise if you need to be hospitalised further. It is important to attend all follow-up appointments with our Vascular Surgeon to allow us to monitor your condition after the procedure.

# What are the risks of surgery?

The overall risk is extremely low, but potential complications may include:

- **Puncture site**

- Some bruising after a vessel puncture is common. One in 10 patients sometimes develop a small lump under the skin. This will subside after a few weeks.
- Significant bleeding from the vessel is very rare. The risk is less than 1%.

- **X-ray contrast**

- Allergic reaction to the X-ray contrast (uncommon).
- X-ray contrast can affect the kidney's function. If you are at risk, special precautions can be taken during the procedure.
- If you are diabetic and on Metformin tablets, do not take your Metformin tablets on the day of your procedure and 48 hours after the procedure. This will help reduce the risk of contrast on kidney function.

- **Treatment**

- Vessel blockage can occur after an angioplasty of a narrowed vessel. A stent may be used to treat it.
- Vessel rupture is very rare. This is sometimes treated by putting a stent with a covering around it (stent graft) to seal the vessel. An operation is sometimes required to repair the vessel.
- Small fragments from the lining of the artery sometimes break off and lodge in the artery below the angioplasty site (distal embolisation). An operation may need to be performed to remove these fragments if blood flow is affected. The overall risk is low (1-2%).

## How successful is surgery?

Angioplasty and stenting is successful in 90-95% of patients. Even with a successful procedure, benefits may not last long and larger arteries remain open longer (80-90% open at two years). Smaller arteries in the lower leg tend to re-narrow quicker (50% open at two years).

Despite this, treatment is still useful in improving blood flow and circulation for many patients who report better mobility, healing from ulcers and more efficient haemodialysis.

## Is there anything I can do to improve my condition?

You cannot prevent an artery from narrowing or blocking, but you can do your part by avoiding high fat food and keeping your weight in the healthy range. You should also quit smoking, exercise regularly and adopt an active lifestyle to reduce the rate of recurrence. Such lifestyle modifications can help to slow down the hardening of arteries and reduce any need for further treatment.



## For more information

### Ng Teng Fong General Hospital and Jurong Community Hospital

1 Jurong East St 21, Singapore 609606

[www.ntfgh.com.sg](http://www.ntfgh.com.sg) | [www.jch.com.sg](http://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](mailto:contactus@nuhs.edu.sg)

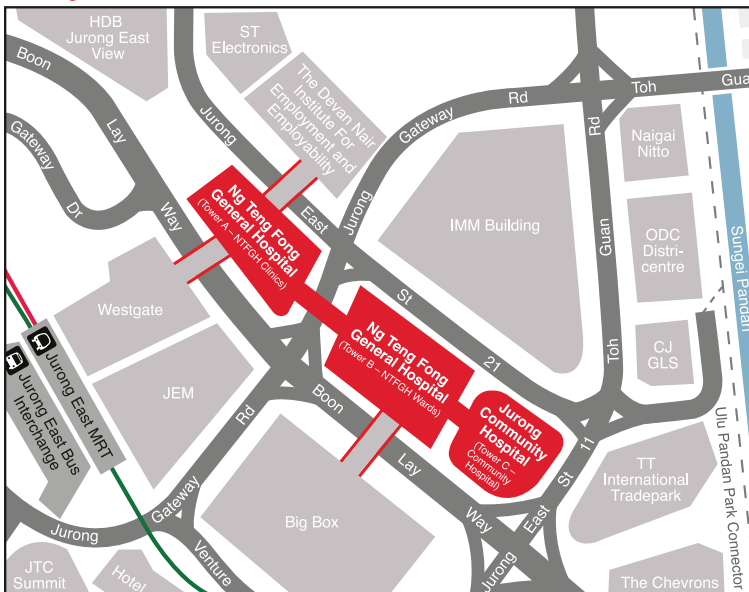
Appointment line: 6908 2222 (Monday – Friday: 8.00am – 5.30pm, Saturday: 8.00am – 12.30pm)

Fax: 6716 2200 | Email: [appointment@nuhs.edu.sg](mailto:appointment@nuhs.edu.sg)

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

Fax: 6716 2200 | Email: [JHCampus\\_Dental@nuhs.edu.sg](mailto: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.