

What should I do?

1. Bring some light reading material or a mini radio for your hospital stay as you will be spending much of your time in bed.
2. Please bring all your medications with you. You will be instructed which medication you need to omit before the test.
3. Inform your doctor of any allergies to seafood, iodine, X-ray contrast medium, and pain-relieving medications.
4. If you are suffering from diabetes mellitus and are taking a medication called metformin, please inform your doctor as you may need to stop this medication for at least 2 days before and after the angiography.

What are the potential risks/complications with this test?

Coronary angiography carries a very small risk of injury and complication. The risk of major life-threatening complication is less than 0.1%, making coronary angiography one of the safest invasive procedures. Most complications are minor, such as bleeding, swelling and bruising from the puncture site and allergic reaction from the contrast medium. There is a very small risk (0.1%) of heart attack and stroke occurring during the test. The risk of death resulting from the procedure is even rarer.

Contact information

NUH Angiography Centre
Main Building 1, Level 2

Opening Hours: 8.30 am - 5.30 pm (Mon - Fri)
(except on Public Holidays)

For appointments, please contact

Tel: (65) 6772 2002
Email: appointment@nuh.com.sg

For International Patients And Visitors

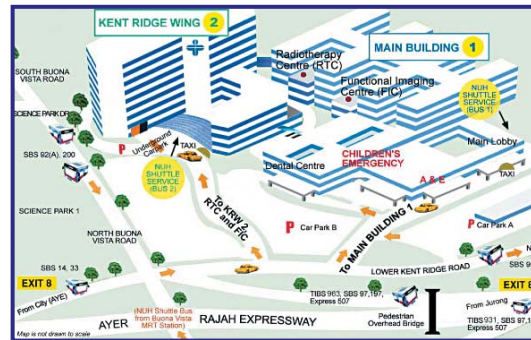
The International Patients Liaison Centre (IPLC) is a one-stop service centre to support all the medical needs of our foreign patients

Tel : (65) 6779 2777 (24-Hours Helpline)
Fax : (65) 6777 8065
Website : www.nuh.com.sg/iplc.html

National University Hospital

5 Lower Kent Ridge Road, Singapore 119074
Tel: 6779 5555 Fax: 6779 5678 Website: www.nuh.com.sg

Location



Free Shuttle Bus Service

Free Shuttle Bus Service from Dover MRT Station to NUH

Operation hours : 8.00 am – 8.30 pm (Mondays – Fridays)
8.00 am – 2.00 pm (Saturdays)
Not available on Sundays and Public Holidays

Dover/NUH passenger pickup/ drop off point : 1. Dover MRT Station (opposite Singapore Polytechnic)
2. Main Building, Lobby Entrance (near roundabout)
3. Kent Ridge Wing, Level 3, South Entrance

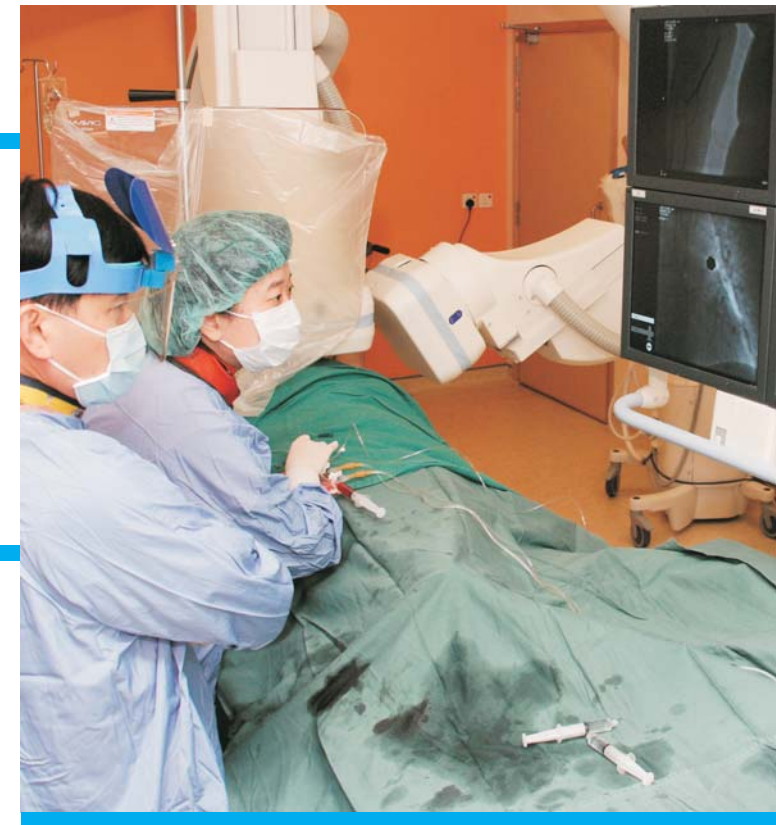
For more information on Shuttle Bus schedule, you may go to NUH internet website at www.nuh.com.sg

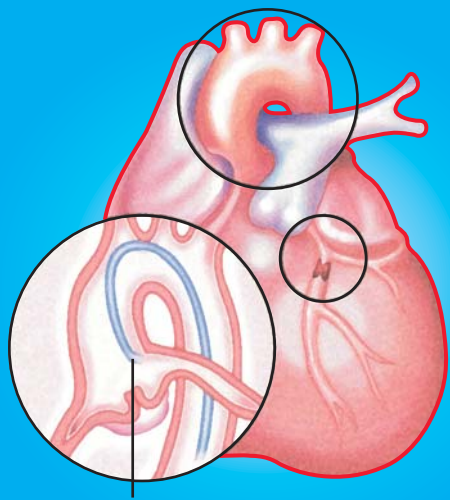
Information in this brochure is given as a guide only and does not replace medical advice from your doctor. Please seek the advice of your doctor if you have any questions related to the surgery, your health or medical condition.

Information is correct at time of printing (Jun 2009) and subject to revision without notice.



Coronary Angiography





A fine tube (catheter) is advanced into the entrance of the coronary arteries to view the extent of narrowing.

What is Coronary Angiography?

Coronary angiography is a procedure to visualise the coronary arteries. The coronary arteries are the blood vessels that supply blood to the heart muscles. On ordinary chest X-ray films, the heart appears as a silhouette and the coronary arteries cannot be seen. To see the coronary arteries, a special dye or contrast medium is injected through a small tube (catheter) inserted into a large artery in the groin or the wrist. The catheter is then advanced to the heart and positioned at the mouths of the coronary arteries before injection is performed. Coronary angiography is therefore an invasive procedure. Sometimes, another procedure called a left ventriculography is performed at the same session, whereby a catheter is advanced into the left ventricle (the lower and larger heart chamber) and contrast medium injected. This allows visualization of the left ventricle and its contractions.

What can I expect?

The procedure may be performed on an outpatient basis, or you may be admitted overnight. Some routine investigations, including blood tests, an electrocardiogram (ECG) and a chest X-ray may be done before the procedure. You will normally be fasted 6-8 hours before the procedure. A small cannula will be inserted in one of the veins on your hand/arm to facilitate intravenous medication administration if necessary. You will also need to sign a consent form after your doctor has explained to you the risks of the procedure.

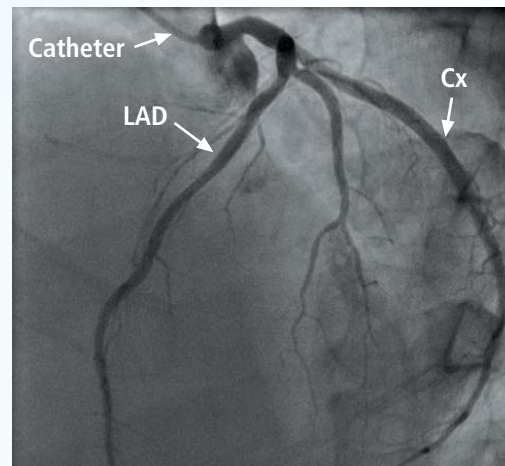
On the morning of your test, you will be asked to empty your bladder and skin shaving, usually on your groins and upper thighs, will be done. You will then be brought to the Invasive Cardiac Laboratory where you will be placed on a movable table, with X-ray cameras and LCD monitors around you. You should not be alarmed by the sound of the machines, and should try to relax and keep still. A nurse will clean your groin or wrist and then drape you with sterile towels. The cardiologist performing the procedure will first numb the groin or wrist before inserting the catheter into your body. The procedure is painless, except for the initial injection of local anaesthetic. If left ventriculography is performed, you will feel a warm sensation in your chest which then moves down your body to your legs during injection of the contrast medium. This sensation lasts a few seconds and is harmless.

After the catheter placement and filming, which normally takes about 15-30 minutes, the catheters will be removed. Upon removal, the doctor will discuss his findings with you. If needed, you may proceed directly to coronary angioplasty. If not, your puncture site will be compressed for about 10 to 15 minutes until the bleeding stops, after which compressive bandage will be applied. If the procedure was done from the groin, you will be brought back to your hospital bed where you would need to lie flat on your back for 4 to 6 hours. The doctor will then ascertain that you are fit to walk. Your doctor will discuss with you the findings of angiography as well as treatment options. You can usually be discharged, either the same evening or early the next day.

What is the purpose of this test?

In some people, the coronary arteries become narrowed, usually by a process called atherosclerosis in which cholesterol and other substances are deposited in the arterial wall. With progressive narrowing, the blood supply to the heart muscle gradually decreases, and eventually becomes insufficient to supply its needs. This usually results in chest pain (angina pectoris) during exertion or stress, but may also manifest as breathlessness, irregular heart rhythm or fatigue. When a blood vessel suddenly occludes completely, a full-blown heart attack occurs. Coronary artery disease is a common disease and a major killer in Singapore.

Coronary angiography is carried out to determine whether any significant narrowing or blockage is present in the coronary arteries, and if so, what the best form of treatment is. It is also performed before coronary angioplasty (balloon procedure) is carried out to provide a "road-map" for guiding the angioplasty procedure.



Coronary arteriogram showing the left anterior descending artery (LAD) and circumflex artery (Cx).