

Inform Your Doctor On:

1. Any allergy, particularly allergies to iodine, X-ray contrast medium, and pain relieving medications.
2. History of peptic ulcer, recent strokes or bleeding tendencies.
3. If you are suffering from diabetes and are taking a medication called Metformin. You will need to stop this medication for at least two days before and after the arteriography.

What is the Likelihood of a Successful Procedure?

The likelihood of success depends on the nature of your coronary narrowing, and is usually over 95%. In about 5% of cases, the procedure may be unsuccessful and the artery remains narrowed. In less than 1% of cases, urgent bypass surgery may be required due to major complications. The narrowing of the coronary artery may recur in the six-month period following an initial successful procedure. This is usually displayed as a recurrence of chest pain or symptoms as mentioned above. You should seek medical attention or inform your doctor immediately if you experience such symptoms again.

What are the Potential Risks?

Overall, the procedure is very safe and well tolerated. Risk of side effects depends on patient factors, such as the age and general condition of the patient, as well as on the complexity of the coronary artery disease. Most complications are minor, such as bleeding, bruising and swelling of the puncture site, and blood clot formation in the artery where the sheath is inserted.

LEVEL 3 TTSH MEDICAL CENTRE

- The Cardiac Centre
- Clinic 3A (Cardiology, Cardiac Ambulatory Services, Cardiac Rehabilitation Gym)
- Clinic 3B (The Heart Atrium, Cardiac Imaging Centre)

LEVEL 3 EMERGENCY (A&E) BLOCK

- Invasive Cardiac Laboratory

CONTACT:

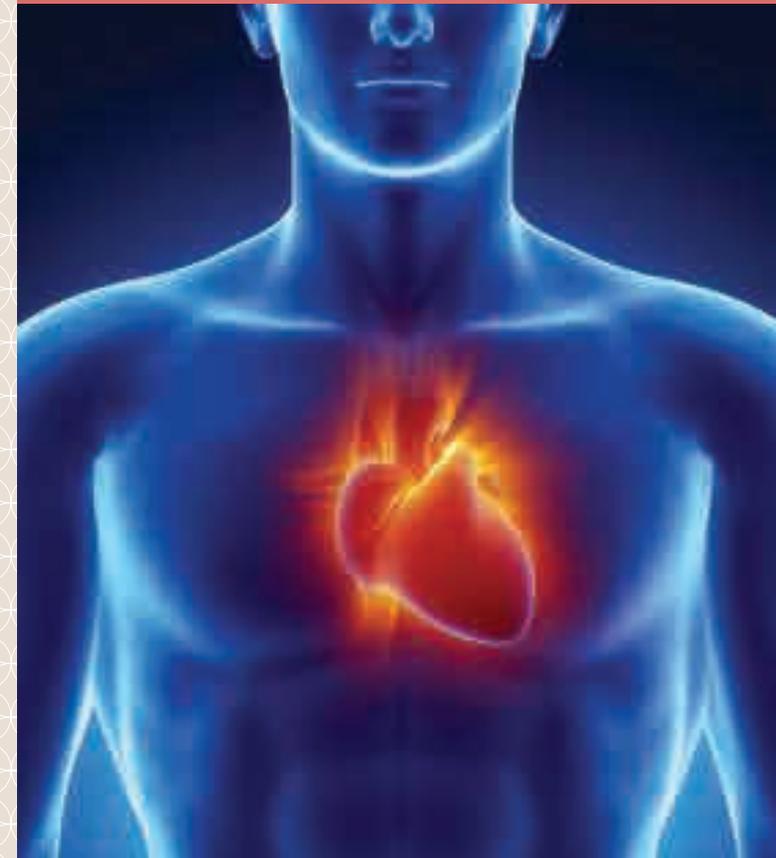
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Department of CARDIOLOGY

Coronary Angioplasty and Stenting



Why do I Need Coronary Angioplasty and Stenting?

Your doctor has ordered for this medical procedure, coronary angioplasty and stenting, to help open blocked heart arteries. The medical condition that you are experiencing is atherosclerosis, which is the hardening of the heart's blood vessels and requires angioplasty as a treatment option. This treatment option is recommended to you as medications that reduce the heart's demand for blood have not improved your heart health.

What is Coronary Angioplasty & Stenting?

Atherosclerosis narrows and hardens the heart's blood vessels, hence limiting the amount of the blood supply to the heart muscles. This may cause chest discomfort, breathlessness, irregular heart rhythm, fatigue and even a heart attack, especially during periods of physical exertion or stress.

Coronary angioplasty, also known as Percutaneous Coronary Intervention (PCI), can help to increase blood supply to the heart. In PCI, a balloon is mounted on a thin wire and is moved forward into your coronary artery until it lies within the narrowed blood vessel(s).

During the balloon angioplasty procedure, the physician may place an expanded coronary stent in the narrowed part of the artery, via a special catheter.



The balloon is inflated to expand the stent. As the stent expands, helps flatten the plaque against the artery wall, increasing blood flow.



Once the stent is fully expanded, the balloon is deflated and withdrawn from the body, leaving the stent to support the artery and maintain good flow.



The balloon is then inflated at high pressures, often for a few times, to open up the narrowing. Your condition is often significantly improved when the balloon deflates.

A stent is a metal coil to provide support to the narrowed segment of the coronary artery after the "ballooning" process is done. This prevents the artery from collapsing and the narrowing of blood vessels from recurring. Modern stents are made of stainless steel or cobalt chromium and will not shift in the body. Nowadays, more than 90% of angioplasty will result in one to two stents implanted at the narrowed segments.

What can I Expect for the Procedure?

Undergoing PCI is very similar to having a coronary angiogram, a procedure that you may have gone through earlier as the angiogram provides a "road map" for the PCI procedure. After injection of local anaesthetic, a plastic sheath or tube is inserted in an artery in the right or left either groin or wrist. Through this tube, a catheter or thin tube is moved forward to the "mouth" of the narrowed coronary artery. A thin wire is then threaded through the catheter and positioned in the coronary artery. It is along this wire that the balloon catheter is finally pushed into the artery and the balloon positioned over the narrowed area.

You may experience some chest pain during the process, and you should report the pain severity to your attending cardiologist. Stenting may also be carried out using the same technique. The stenting procedure may take half an hour to two hours, depending on the complexity of the diseased artery.



After a successful PCI, you will be closely monitored in a ward. During this period, the sheath may be kept in your groin for four to five hours. The sheath could also be removed immediately after the procedure. After removing the sheath, the puncture site at the groin will be compressed for about 15 minutes and a tight bandage applied to ensure that there is no bleeding.

However, if the procedure was done through the wrist, the catheter will be removed immediately after the procedure followed by the application of a compressive bandage around the wrist.

You will have to remain in bed until the next day to ensure that the puncture site is healed sufficiently before you are allowed to walk. Some blood tests and electrocardiograms (ECGs) will be performed to monitor your condition. If there are no side effects, you can be discharged the day after a successful PCI procedure. At the point of discharge, you will be given two anti-blood-clotting medications – Aspirin and Clopidogrel/Ticagrelor. You should continue to take Aspirin indefinitely to prevent future heart attacks, unless instructed otherwise by your doctor.