

GETTING TO NHCS

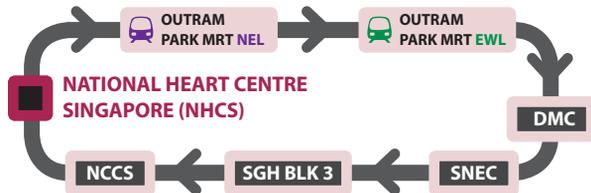
NATIONAL HEART CENTRE SINGAPORE

5 Hospital Drive, Singapore 169609

Tel: (65) 6704 8000 Fax: (65) 6844 9030

Email: nhcs@nhcs.com.sg Website: www.nhcs.com.sg

FREE SHUTTLE BUS ROUTE & OPERATING HOURS



Monday to Friday	8am to 7pm
Saturday & Eve of Public Holidays	8am to 2pm
Sunday & Public Holidays	No service
Frequency	Approximately every 20mins

NEAREST PUBLIC TRANSPORT SERVICES

Bus Stop No. 10017 2, 2A, 12, 12e, 54, 61, 121, 122, 124, 143,
- Eu Tong Sen St 147, 166, 167, 174, 174e, 190, 196, 197,
(Aft Hosp Dr) 961, 961C, CT8, CT18

Outram Park MRT East West Line (EW16) North East Line (NE3)
The MRT station exit closest to NHCS is Exit F.

GETTING TO NHCS CARDIOLOGY @SKH

NHCS CARDIOLOGY @SKH

Sengkang General Hospital

110 Sengkang East Way, Singapore 544886

NEAREST PUBLIC TRANSPORT SERVICES

Bus Stop No. B67419 43M, 43, 83, 109, 119, 374
- Opp Block 261
(Sengkang East Road)

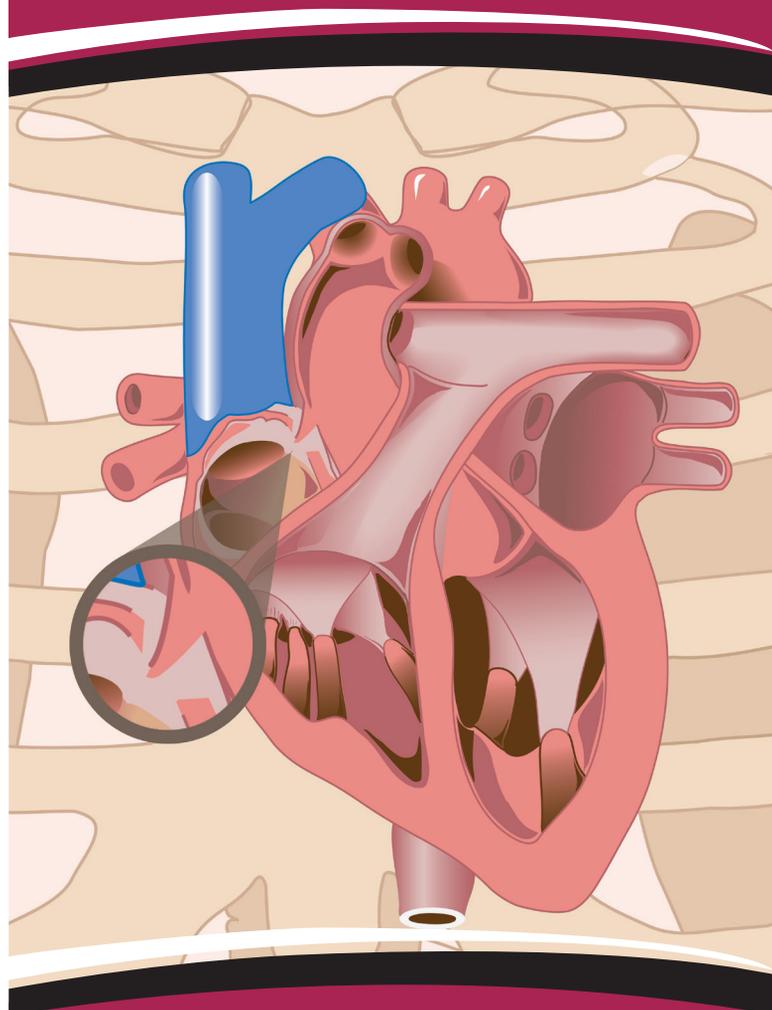
Cheng Lim LRT Sengkang LRT Line (SW1)
The LRT station exit closest to SKH is Exit B.

Sengkang MRT North East Line (NE16)
The MRT station exit closest to SKH is Exit D.

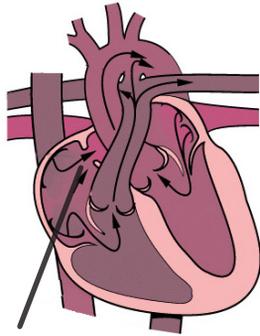
PATIENTS. AT THE HEART OF ALL WE DO.®

DEPARTMENT OF CARDIOLOGY

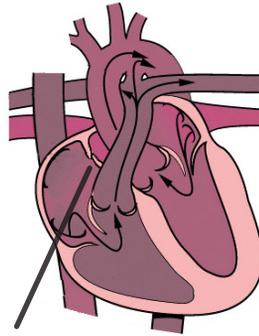
Patent Foramen Ovale (PFO)



National Heart
Centre Singapore
SingHealth



*Foramen ovale (opening)
prior to birth*



*Foramen ovale closing
naturally during infancy*

WHAT IS A PATENT FORAMEN OVALE (PFO)?

During fetal development, a small flap-like opening (the foramen ovale) is normally present in the wall between the upper left and right chambers of the heart (atria). The opening normally closes during infancy. A patent foramen ovale (PFO) refers to the opening of the flap when the foramen ovale does not close the way it should be, after birth.

Most people with the condition never know they have it. A PFO is often discovered during tests for other problems.

DO I NEED TO BE CONCERNED ABOUT PFO?

Majority of patients with PFO do not experience any symptoms. Some patients may experience frequent headaches (migraine).

Although uncommon, a blood clot formed in venous system, such as the leg veins, can travel through the blood to the heart and, if the person has a PFO; the blood clot can cross into the left side of heart and go to the brain, resulting in a stroke. This condition is called paradoxical embolism.

Patients with PFO are advised to avoid scuba diving in view of the risk of paradoxical embolism and decompression sickness.

Patients who do not suffer from any symptoms may not need routine follow-up with serial echocardiograms.

WHAT ARE THE TESTS/ TREATMENTS AVAILABLE FOR PFO?

PFO can be diagnosed through an echocardiogram (ultrasound imaging test of the heart). Sometimes, a “bubble test” may be required during an echocardiogram to confirm the presence of a PFO.

There is usually no follow-up or treatment required if the patient does not suffer from any symptoms. In certain circumstances, however, the doctor may recommend a procedure to close the PFO.

PFO CLOSURE PROCEDURE

PFO closure is a minimally invasive, catheter-based procedure that involves the use of a device called the “occluder”, to close the PFO.

Studies have shown that patients with stroke (aged between 18 and 60 years old) who are treated with PFO closure, have lower risk of recurrent stroke.

Possible procedure related complications, however, may include:

Serious risks (less than 1%)

- Death
- Stroke
- Fluid build up in heart muscle and sac of the heart
- Blood clot in the heart, legs or lung
- Irregular and or rapid heart rate
- Perforation of heart muscle or vessel

Other potential risks (less than 10%)

- Blood vessel blockage due to blood clot or air
- Allergic reaction
- Infection
- Bleeding
- Injury to nerves in arm or lower neck
- Pacemaker implant
- Device migration