

Life with Pulmonary Hypertension

- Adhere to your medical therapy strictly. Follow up with your physician to review your condition and therapy. Some medications may interact with existing pulmonary medications (e.g. Warfarin and Sildenafil) and may cause complications. Consult your doctor, when taking new medications.
- You should be as active as your physical body allows. Activities such as walking or swimming are encouraged.
- Do not engage in competitive sports or isometric exercises. If you are taking Warfarin, avoid any form of contact sports and take special care whilst engaging in any form of exercise.
- Ensure that you get your yearly flu vaccination and 5-yearly Pneumococcal vaccination. This will prevent you from severe lung infections. If you have a respiratory tract infection, seek medical attention early.
- If you travel, ensure that the aircraft is pressurised and has supplemental oxygen available whilst on flight if necessary. Most commercial carriers are pressurised and have oxygen supply on flight. However, please check to confirm that the aircraft you travel in has met this criteria.
- Female patients with Pulmonary Hypertension must not get pregnant as pregnancy increases the risk of death to both the mother and the foetus. Avoid pregnancy by practising safe and effective forms of contraception. Kindly consult gynaecologist for contraceptive advice.

In the Pipeline

More and more new agents are being developed to treat Pulmonary Hypertension. There are clinical trials that recruit patients for evaluation of new therapy in the treatment of Pulmonary Hypertension. Enrolment in clinical trials will come with benefits of getting novel therapy early.

Talk to Us

If you will like to find out more, please contact:

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Contact information

Heart Clinic @ Level 1

Main Building 1, Level 1

Opening Hours: 8.30 am - 6.00 pm (Mondays - Fridays)
Closed on Saturdays, Sundays & 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

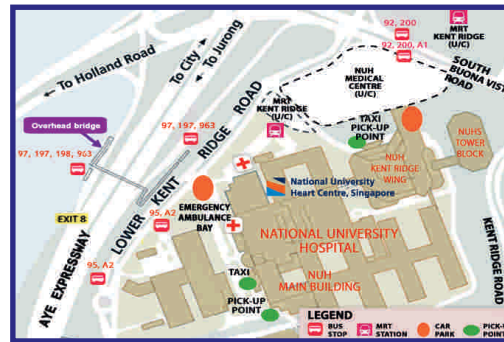


National University Hospital

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

For more information on Shuttle Bus schedule, log on to 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 (June 2011) and subject to revision without notice.

Understanding Pulmonary Hypertension

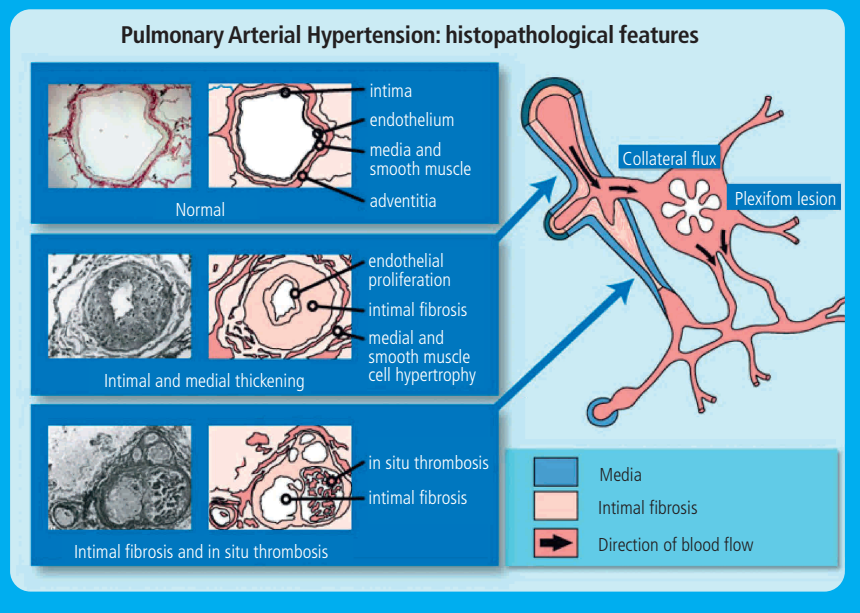
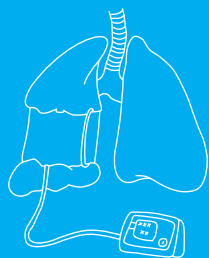
Adult Congenital and Structural Heart Disease Programme



What is Pulmonary Hypertension?

Pulmonary hypertension is a rare disease of the lung in which the pressure in the blood vessels of the lung rises above normal levels and may become life threatening. In the advanced stage of the disease, the blood vessels in the lungs are narrowed, thickened and stiff, making it difficult for the heart to pump blood through. This causes the heart muscle to weaken over time. Clots can form and block part of the vessel's lumen as well.

It is a disease that affects people of all ages and ethnic backgrounds.



What Are The Causes of Pulmonary Hypertension?

The causes of Pulmonary Hypertension include collagen vascular diseases (e.g. scleroderma, CREST syndrome or systemic lupus erythema), congenital heart diseases (shunts like ventricular and atrial septal defects), HIV infection and liver disease.

Common causes of secondary Pulmonary Hypertension include lung conditions, thyroid disease, chronic pulmonary thromboembolism (chronic formation of blood clots in the pulmonary artery) and left heart disease (e.g. mitral stenosis).

Occurring in about two to ten people per million population per year, Pulmonary Hypertension can also occur with no known cause. This is referred to as Idiopathic Pulmonary Arterial Hypertension (IPAH).

Must It Be Treated?

Pulmonary Hypertension is a serious disease that needs to be treated early. The outcome of treatment is largely dependant on the cause of the disease. Treatment with PAH specific therapy has been shown to improve symptoms, exercise capacity and overall outcome of the disease.

How Do I Know If I Have This Disease?

As the symptoms of this disease are rather common, it is usually mistaken for asthma. Common symptoms of Pulmonary Hypertension include breathlessness (especially on exertion), tiredness, dizziness during physical exertion, swollen ankle and legs, fainting and chest pain during physical activity.

Usually, heart and lung scans are necessary for the doctor to assess your pulmonary arterial pressure and to determine the cause. Other tests are also essential to target your treatment, for example:

1. Echocardiography
To estimate the pressure in the lung vessels and exclude cardiac conditions as a cause.
2. Six-minute Walk Test
To assess the ability of the patient to perform physical activities.
3. Blood tests
For liver disease, AIDS and others that can cause Pulmonary Hypertension.
4. Right Heart Catheterization
A definitive test to prove the diagnosis, to exclude shunts and left heart disease and to prognosticate the condition.

Treatments

Drugs that are used specifically for treatment of Pulmonary Hypertension in Singapore include:

- Phosphodiesterase V inhibitors such as Sildenafil (Viagra) and Tadalafil (Cialis)
- Endothelin Receptor Antagonist such as Bosentan (Tracleer)
- Prostaglycline analogue such as Inhaled Illoprost (Ventavis) and Intra-venous Epoprostanol (Flolan)

A patient may sometimes require combination therapy as their disease progresses. Other drugs that complement the treatment of Pulmonary Hypertension include:

- Warfarin
This is an anticoagulant that thins the blood.
- Diuretics, Spironolactone and Frusemide (with Potassium Chloride)
These medications helps to remove water logged in the body.
- Long-term Oxygen Therapy
This is offered to patients with low oxygen saturation (< 90%), as oxygen is a good dilator of the pulmonary blood vessels.

Atrial septostomy (making a hole in the heart to improve blood flow) and lung transplantation can be offered to patients who are failing their medical therapy.

Life with Pulmonary Hypertension

If you have Pulmonary Hypertension, do take appropriate measures to take care of yourself and avoid factors that aggravate your condition: