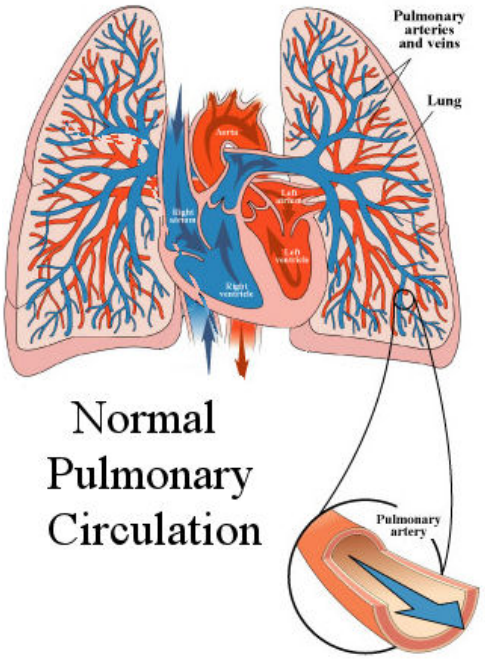
Pulmonary Hypertension

Pulmonary hypertension (PH) is a type of high blood pressure that affects the arteries in your lungs and the right side of your heart. PH is a serious condition and can be fatal. There are two types of pulmonary hypertension:

- Primary pulmonary hypertension. Primary PH occurs without a known medical condition.
- Secondary pulmonary hypertension. Secondary PH is caused by a known medical condition.



CAUSES

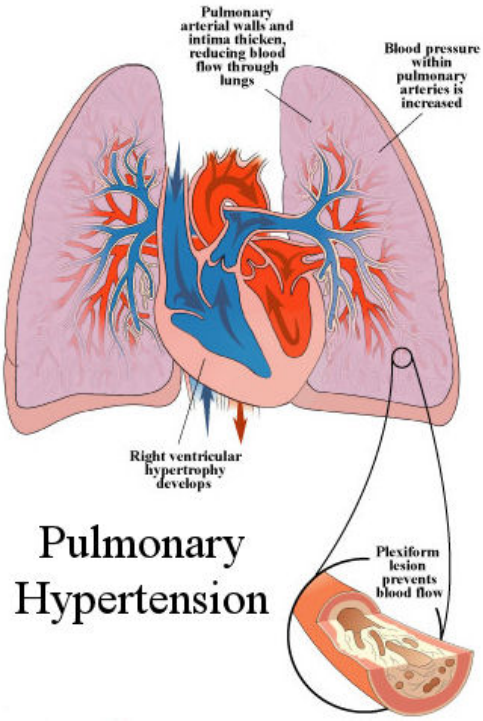
PH begins when arteries in your lungs (*pulmonary arteries*) become narrowed, blocked or destroyed. This makes it hard for blood to flow through the lung arteries. This causes pressure to build up in the lungs and makes the right side of the heart work harder. Over time, this can weaken the heart muscle.

Primary pulmonary hypertension causes:

- An inherited (*genetic*) condition.
- An unknown cause.

Secondary pulmonary hypertension causes:

- Lung diseases such as:
  - Pulmonary fibrosis.
  - Chronic obstructive pulmonary disease (COPD).
  - Emphysema.
- Pulmonary emboli (blood clot in the lungs).
- Heart failure.
- Connective tissue diseases like scleroderma.
- Sickle cell anemia.
- Chronic liver disease (*cirrhosis*).
- Lupus.
- AIDS.



SYMPTOMS

- Shortness of breath (SOB). You may notice shortness of breath with:
  - Activity such as walking.
  - No activity. You may be short of breath simply by sitting in a chair.
- Tiredness and fatigue.
- Dizziness or fainting.
- Rapid heart rate or you feel your heart skip beats (*palpitations*).
- Neck vein enlargement.
- Bluish color of your lips and fingertips.

DIAGNOSIS

Different tests can be used to check (*diagnose*) pulmonary hypertension. These can include:

- Chest X-ray.
- Arterial blood gases (ABG). This test checks the oxygen level in your blood.
- High resolution computed tomography (CT) or Magnetic resonance imaging (MRI). These tests can provide detailed images of your lungs.

- Pulmonary function test. This test measures how much air your lungs can hold. It also tests how well air moves in and out of your lungs.
- Electrocardiogram (EKG). This traces the electrical activity of your heart and prints it out on paper.
- Echocardiogram. This test can look at your heart in motion and how it functions.
- Heart catheterization (*angiogram*). This test can measure the pressure in your pulmonary artery and right side of the heart.
- Sometimes a biopsy is taken of your lungs.

TREATMENT

Pulmonary hypertension has no cure. Treatment can help relieve symptoms and slow the progress of PH. Treatment can involve:

- Medications such as:
  - Blood pressure medications.
  - Diuretics (water pills).
  - Blood thinning medications.
- For severe pulmonary hypertension that does not respond to medical treatment, a lung transplant my be needed.

HOME CARE INSTRUCTIONS

- Take all medicines as told by your caregiver. If you have problems with a prescribed medicine, talk to your caregiver. Do not stop taking it on your own.
- Do not smoke.
- Eat a healthy diet. Avoid a high salt diet. Talk to a dietician (food specialist) about foods you should eat.
- Stay as active as possible..
- Avoid high altitudes.
- Be careful when using a hot tub. A hot tub can lower your blood pressure.
- If you have pulmonary hypertension and are female of child bearing age, talk to your caregiver about using birth control pills or getting pregnant.

SEEK IMMEDIATE MEDICAL CARE IF YOU:

- Have severe shortness of breath.
- Develop chest pain or pressure.
- Cough up blood.
- Develop swelling of your feet or legs.
- You have sudden increase in weight.

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