

epidermis). Alternatively, new oral anticoagulant drugs are being used.

Patients may also receive analgesics (pain-killers), oxygen, or drugs that stabilize blood pressure level and heart rhythm.

Once a pulmonary embolism has been effectively treated, patients are usually given a blood-thinning drug. Most patients require blood-thinning medication for at least 6 months. Because these drugs can make a patient prone to excessive bleeding, patients are regularly given blood tests to check how long it takes the blood to clot.

Lifestyle

Patients with a known risk of pulmonary embolism can adopt several lifestyle measures to reduce the chances of developing a blood clot, including:

- Wearing compression stockings daily;
- Receiving a treatment called intermittent pneumatic compression;
- Moving around every hour during long car rides and plane trips;
- Taking a low dose of aspirin during long trips (if not already taking blood-thinners); and
- Drinking plenty of fluids.

Contact information

St. Maarten Medical Center

Internal Medicine

Welgelegen Road 30

Cay Hill

St. Maarten

Tel: +1 (721) 543-1111 ext 1300, 1310

Fax: + 1 (721) 543-0116

Email: info@smmc.sx

Web: www.smmc.sx

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Pulmonary Embolism



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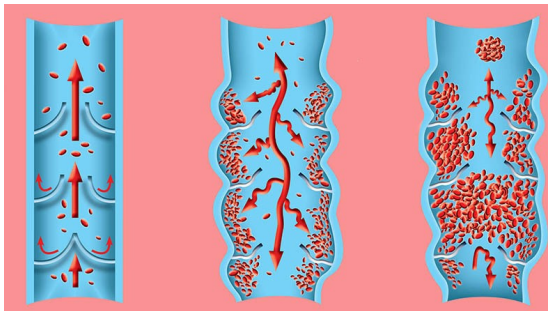
What is pulmonary embolism?

The pulmonary arteries and their branches carry blood from the heart to the lungs to be oxygenated.

A pulmonary embolism is the blockage or closure of a pulmonary artery or one of its branches by an abnormal object, most frequently a blood clot. The clot typically travels with the flow of blood from a leg vein to the site where it creates a blockage.

When a pulmonary artery becomes severely blocked, blood oxygen levels fall, and blood pressure in the lungs and pulmonary arteries can rise so high that the heart may not be able to pump enough blood out of its chambers.

A pulmonary embolism occurs when an embolus, or abnormal object, moves through the circulatory system and blocks an artery in the lung. Because about 10 percent of pulmonary embolisms are fatal within the first hour after onset of symptoms, prompt diagnosis and treatment are critical.



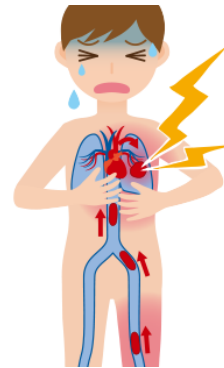
If a blockage occurs in a large blood vessel or if the person suffers from another pulmonary condition, such as pulmonary hypertension,

the blockage could cause pulmonary infarction, which means lung tissue death.

What are the symptoms?

The severity of the symptoms varies with the size or number of blockages. Small embolisms may cause no symptoms. Common symptoms include:

- Shortness of breath;
- Chest pain, sometimes radiating into the shoulder, arm, neck, and jaw;
- Rapid breathing;
- Anxiety and restlessness;
- Lightheadedness;
- Rapid heartbeat;
- Syncope, or fainting;
- Pleural friction rub, which is a rubbing sound in the chest;
- Weak pulse;
- Low blood pressure;
- Coughing or spitting up blood;
- Bluish skin tone (cyanosis);
- Wheezing.



What causes a pulmonary embolism?

About 50 percent of all embolisms are blood clots that result from a condition called deep vein thrombosis (DVT). Rarely, a pulmonary embolism can be caused by an air bubble, fat, amniotic fluid (in mothers shortly after childbirth), or bone marrow following a fracture.

What are some of the risk factors?

The following factors increase a person's risk for a pulmonary embolism.

- Family history;
- Blood clotting disorders;
- Major surgery;
- Prolonged immobility;
- Cancer;
- Prior embolism;
- Obesity;
- Heart conditions;
- Smoking;
- High blood pressure;
- Use of birth control pills;
- Hormone replacement therapy (HRT);
- Pregnancy and childbirth;
- Advanced age; and
- Pelvis, hip, or leg fractures.

Diagnosis

A doctor will take your patient history and will order one or more of the following tests:

- Chest x ray;
- Electrocardiography (ECG);
- D-dimer Enzyme-Linked Immunosorbent Assay (ELISA);
- Computed tomography (CT) scan;
- Contrast pulmonary angiography; or
- Duplex ultrasonography.

How is a pulmonary embolism treated?

The mainstay of treatment for pulmonary embolism is the anticlotting drug heparin, which is usually given intravenously.

Nowadays, fractionated heparin is administered subcutaneously (injection in the layer of skin directly below the dermis and