

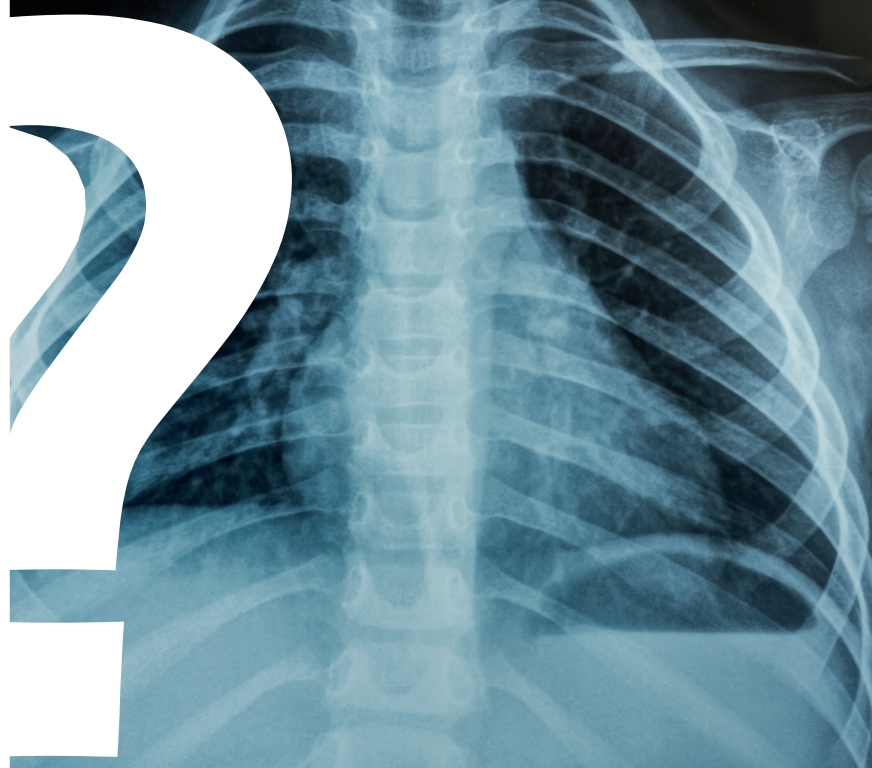
**What is  
Chronic thromboembolic  
pulmonary hypertension**

**(CTEPH)**

**To help patients understand disease**



**Association  
pulmonaire  
du Québec**





## What is ?

### Chronic thromboembolic pulmonary hypertension

Chronic thromboembolic pulmonary hypertension (CTEPH) is a rare form of PH. In CTEPH, a thrombus (clot-like mass) sticks to a pulmonary blood vessel and blocks the blood flow.

**Chronic:** long-lasting illness

**Thromboembolic :** blockage of a blood vessel by a blood clot that has been formed in the arms or the legs

**Pulmonary :** relative to the lungs

**Hypertension :** medical term for high blood pressure



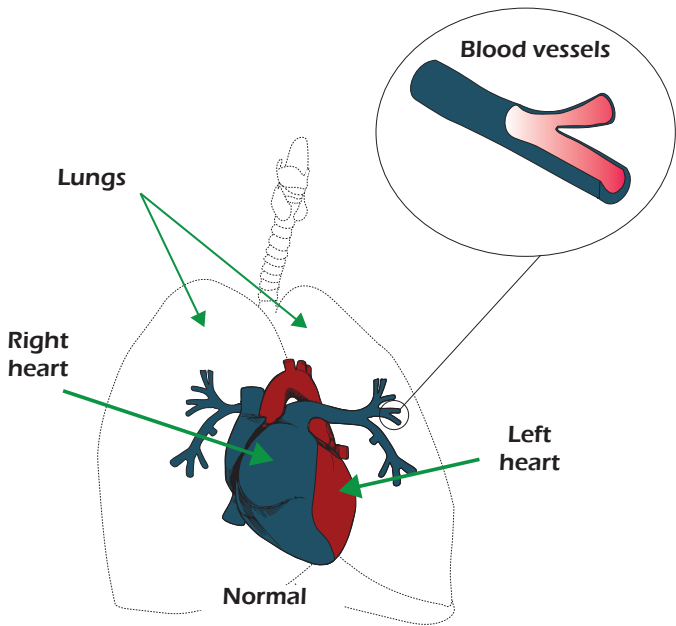
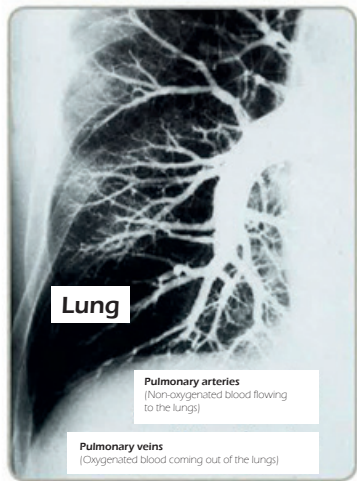
In fact, as many as 1 out of every 25 people who had a PE



Even those who were treated with at least 3 months of anticoagulants [blood thinners], could develop CTEPH

## Healthy Lung

Blood circulates freely in the arteries and veins inside the lungs



## Causes?

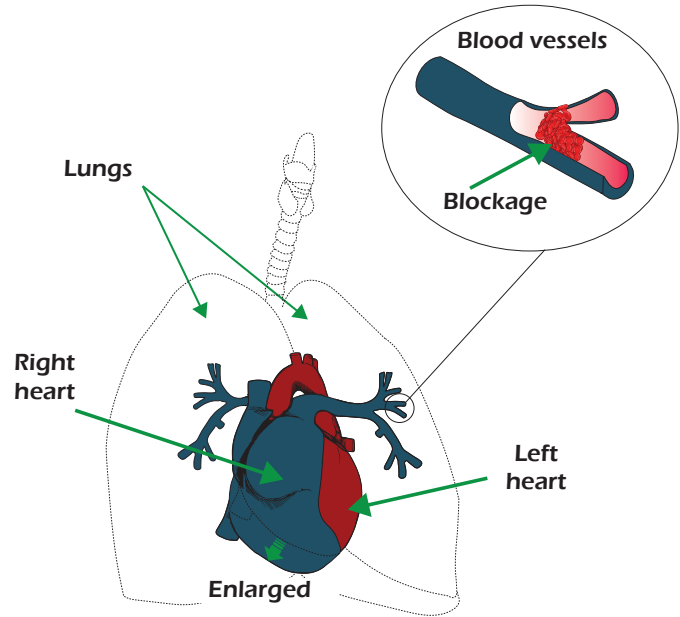
Chronic thromboembolic pulmonary hypertension (CTEPH) can develop in people who have experienced an acute pulmonary embolism (a blood clot in your lungs [PE]).

An acute PE can happen when a certain type of blood clot, called deep vein thrombus, travels from your leg or another part of your body to an artery in your lung, where it lodges.

This blockage restricts blood flow, increasing the pressure inside the pulmonary blood vessels, which then makes it harder for the right side of the heart to pump blood into the lungs. Over time, this increased stress causes the right side of the heart to enlarge and weaken.

## Lung Touched By HPTEC

The obstruction reduces blood flow,  
Which increases the pressure  
Arterial artery in the pulmonary artery





## Risk factors

Although pulmonary embolism (PE) is named as the leading cause, many HPTEC sufferers do not have a medical history of PE or do not know that they have already suffered from PE. Here are some risk factors that may increase the chances of an HPTEC:

- Pulmonary embolism (EP) or multiple EP episodes
- Cancer
- Splenectomy
- Ventriculo-Atrial Derivation
- Chronic inflammatory disease
- Hyperthyroidism
- Hypercoagulability disorders
- High risk of blood clots
- Genetic factors

## Symptoms

If you have CTEPH, your symptoms may experience include:

- Shortness of breath with exercise
- Fatigue
- Swelling of the ankles, arms or stomach area
- Coughing up blood (hemoptysis)
- Fainting
- Chest pain







## Diagnostic

Chronic thromboembolic pulmonary hypertension (CTEPH) can be difficult to diagnose because its symptoms are similar to those of other conditions. Therefore, if your doctor suspects you may have CTEPH or another type of pulmonary hypertension (PH), he will run a number of tests, some of which are outlined below:

- Echocardiogram (ECG)
- Right heart catheterization (RHC)
- V/Q (ventilation/perfusion) scan (a gold standard test for screening for CTEPH)
- Pulmonary angiography (for confirmation of chronic thromboembolic disease and evaluation of operability)

# Treatment



Improve  
heart  
function

Reduce  
CTEPH  
symptoms



## Treatment

CTEPH is potentially curable by a type of surgery called PTE, or pulmonary thromboendarterectomy. Although PTE is the recommended treatment for CTEPH, not everyone is a candidate. Even after PTE surgery, you can still experience CTEPH symptoms. It's important to talk to your doctor about your options.

Also, PTE surgery does not always cure CTEPH. This is known as recurrent CTEPH.

In addition to treatment specifically targeted at CTEPH, patients with CTEPH are commonly treated with anticoagulants (blood thinners).



