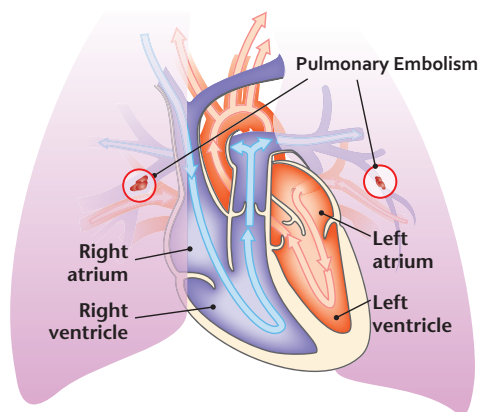


# Long-Term Treatment and Prevention of PE

## Part 3

Once you have been diagnosed with pulmonary embolism (PE), it is very important that you take blood thinners every day as prescribed. The blood thinner is usually in the pill form or sometimes as injections that give yourself under the skin. There are various oral blood thinners (anticoagulants) available. This fact sheet describes the different type of blood thinners, monitoring that is needed while on blood thinners, and how to prevent future blood clots from developing. The ATS Patient Information Series fact sheet 'Pulmonary Embolism' Part 1 gives information about what is a pulmonary embolism and who is at risk of developing these blood clots and Part 2 'Acute treatment for Pulmonary Embolism' gives information how PE is managed right after it is found.



### What are oral blood thinner medicines (oral anti-coagulants)?

Most people who have had a PE are sent home on oral blood thinners (anticoagulants). Warfarin, also known as Coumadin, is the most common oral blood thinner taken by mouth and has been used for decades. It takes several days for warfarin to reach adequate blood levels, so until the blood levels are in the goal range, a person will need to be on both injectable blood thinners and warfarin. When you are on warfarin, you will need regular blood tests to check drug levels. Your healthcare provider will advise you how often your blood level needs to be checked. Different foods you eat or drugs you take can affect warfarin levels in your body. It is very important that your drug levels are maintained in a strict range.

Because of some of these issues with warfarin, other oral blood thinners have been developed in recent years. These are directly active oral anticoagulants (DOACs) such as dabigatran (Pradaxa™), rivaroxaban (Xarelto™), edoxaban (Savaysa™) and apixaban (Eliquis™). These oral medications do not require monitoring of blood levels. There are criteria for who can take these medications and when they should be used. Your healthcare provider will help you decide

what the best choice of anticoagulant is for you.

### What are injectable forms of blood thinner medications?

Enoxaparin (Lovenox™) or Dalteparin (Fragmin™) are given as a shot under the skin (subcutaneous). Most people do not need routine blood levels for this type of medication. If you had a blood clot because of cancer or while you are pregnant, this is the preferred form of therapy. Sometimes an injectable blood thinner is used until the oral blood thinner has taken effect.

### What is done to monitor treatment of PE?

A person who is being treated with a blood thinner may need repeated blood testing over time depending on the medication being used. A person who is on a blood thinner should avoid activities that have a significant risk of injury that causes bleeding. If you are on a blood thinner, you should contact your healthcare provider right away if you have any signs of bleeding such as:

- black stool,
- heavy menstrual periods,
- an expanding bruise, or
- a very severe headache

## How long does a person with PE need to be on a blood thinner?

Blood thinner treatment for PE is usually advised for at least 3-6 months. Your healthcare provider may advise a longer course depending on why you had the blood clot. Some people at high risk of blood clots may stay on blood thinner indefinitely.

## Follow-up for Pulmonary Embolism

After receiving appropriate care in the hospital, a person who is on blood thinners will need regular follow-up with his or her primary care provider or a specialist (such as a pulmonologist—lung specialist). You may need other tests to try to find the cause of the PE. Taking your medicine exactly as prescribed is a key to preventing future blood clots. Recurrent PE can be life-threatening even if the first one was not severe. You should watch out for signs of a new PE or deep vein thrombosis (DVT—leg clots that can move up to the lungs) such as chest pain, shortness of breath, or swelling in the legs. If you notice any new symptoms, you should get in touch with your healthcare provider right away. Close follow-up is also important as a very small number of people who have had PE may go on to develop chronic thromboembolic pulmonary hypertension. An ATS Patient Information Series fact sheet is available on CTEPH at [www.thoracic.org/patients](http://www.thoracic.org/patients).

## How can I try to prevent a future blood clot from forming?

You can reduce the risk of developing a blood clot by stopping smoking, losing weight, and staying active. Drink plenty of liquids and take frequent breaks to walk around during car trips or airplane rides.

Certain types of medications can increase the risk of developing blood clots. Talk with your healthcare provider if any of the medications you are on increases the chances of developing a blood clot, and ways to manage that risk.

A blood clot can be the first sign of an undiagnosed cancer and your healthcare provider will advise if you need cancer screening tests.

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## Rx Action Steps

If you are at risk of blood clots, talk to your healthcare provider about ways you can help prevent getting a DVT or PE.

- ✓ If you are on a blood thinner, always take it as prescribed. To keep a good level, take it at the same time of day and do not skip doses. Follow advice about avoiding foods that can affect the blood level.
- ✓ Get blood tests done as advised to monitor blood thinner levels.
- ✓ Stopping a blood thinner on your own can lead to another serious blood clot. If you are concerned about your treatment, talk to your healthcare provider.
- ✓ Watch for signs and symptoms of a blood clot or abnormal bleeding or bruising. Call your healthcare provider right away if you are having any problems.

**Healthcare Provider's Contact Number:**

## For More Information

### American Thoracic Society

- [www.thoracic.org/patients/](http://www.thoracic.org/patients/)
  - PE part 1 (Introduction)
  - PE part 2 (Acute Treatment)
  - CTEPH

### National Heart, Lung and Blood Institute

- <https://www.nhlbi.nih.gov/health-topics/pulmonary-embolism>

### Center of Disease Control

- <https://www.cdc.gov/ncbddd/dvt/index.html>

### Clot Connect

- <http://www.clotconnect.org/healthcare-professionals/patient-handouts>

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