The information in this pamphlet is for adults who are taking a blood thinner at home, and are not pregnant.

Patient Version

Things to know if you are taking a blood thinner to prevent blood clots: checking your blood

If you are taking blood thinner to prevent a blood clot, you need to know how to take your blood thinner properly so that it works best for you. You may also need to have blood tests to check how well the blood thinner is working and if it needs to be changed.

You should:

- take your medicine as prescribed by your health care provider
- learn about blood clots and blood thinners and ask your health care provider questions
- get blood tests as prescribed by your doctor

What are blood clots?

On the outside of the body, blood clots can be good. They stop the bleeding after an injury. When a blood clot forms inside the body, it can sometimes block a blood vessel, such as a vein or artery. If blocked, blood may not be able to flow and organs could be damaged.

Blood clots can happen in the upper or lower part of the body – called a deep vein thrombosis (DVT), or in the lungs – called a pulmonary embolism.

What is the treatment?

Blood thinners are usually prescribed to prevent blood clots. Blood thinners do not actually thin your blood. They increase the time it takes for your blood to clot.

The most common blood thinners that people take at home are:

- **VKA** – vitamin K antagonist pills, such as warfarin (coumadin), acenocoumarol (Nicoumalone) or phenprocoumon (Marcoumar, Marcumar or Falithrom)
- **DOAC** - Direct-acting oral anticoagulant pills, such as apixaban (Eliquis), dabigatran (Pradaxa), edoxaban (Lixiana or Savaysa), or rivaroxaban (Xarelto)

Heparin is another type of blood thinner, but most people do not take heparin at home

Checking how well your medicine is working

Blood thinners slow the time it takes for your blood to clot. If the time to clot is not slow enough, you will still have a risk of a blood clot. If the time to clot is too slow – it takes a long time - it could increase your chances of bleeding more than normal. The time needs to be right.

The American Society of Hematology has made recommendations about how and when your medication and blood levels should be checked. Only some blood thinners, like VKAs, will need to be checked. There are different ways to check your blood depending on the blood thinner and what tests are available.

If you take warfarin or other VKA pill

You will need to have a blood test called an **I**nternational **N**ormalized **R**atio (**INR**) test.. You will need to have this test while taking a **VKA pill**. Blood is taken either from a prick of your finger or from a needle inserted into a vein in your arm or hand.

The **INR test** will measure how long it takes for your blood to clot. The length of time should be between a target range.

When your INR is usually **in the target range**, you may test your INR every **6-12 weeks**.

When your INR is **out-of-target range** you may test your INR every **4 weeks** or more often.

Testing your own blood at home

If you are at low risk of a blood clot

Your health care provider may ask you to test your own INR at home, instead of going to a lab or clinic. If you test at home, you tell your health care provider the results of the test, and the doctor will tell you whether your blood thinner needs to be changed or not.

If testing at home:

- you will need to have training
- you will need to be able to move your fingers and hands well
- you will need to be mentally able to do it
- there may be some costs, such as the cost of the machine and testing supplies (e.g., test strips)

RECOMMENDATION 3

Benefits: You may have better quality of life and be more satisfied with your care. You may be in your target range more often than if you went to a lab or clinic. You may also have less chance of a blood clot and less chance of bleeding more than normal (a major bleed). Out of 1000 people testing at home there were about 10 fewer clots and 10 fewer bleeds.

Testing your own blood at home and changing your own medication when needed

Your health care provider will ask you to test your own INR at home and make changes to your blood thinner on your own, instead of going to a lab or clinic. When you test at home, you compare your results of the test to a chart, and you change your blood thinner depending on what is on the chart.

When testing at home and changing your own blood thinner:

- you will need to have training
- you will need to be able to move your fingers and hands well
- you will need to be mentally able to do it
- there may be some costs, such as the cost of the machine and testing supplies (e.g., test strips)

RECOMMENDATION 4

Benefits: You will probably decrease your chances of a clot, and will decrease your chance of dying compared to going to a lab or clinic. Out of 1000 people, there were about 25 fewer clots and 15 fewer deaths. There may be no effect on your quality of life, whether you have a major bleed, or how often your blood is within target range.

If you are taking DOACs

If you take direct oral anticoagulants (DOACs, such as apixaban or rivaroxaban), you may not need to test your blood regularly. Your health care provider may check your kidney blood tests. You might need a blood test in a lab in some situations, such as major bleeding.

RECOMMENDATION 9

If you are not testing your blood at home

If you are taking a blood thinner and not testing your blood at home, it is possible to test your blood at the office of your health care provider or in a lab. Using a special **anticoagulation management service** (**AMS**) may be better than going to your usual health care provider to take care of your blood thinners.

RECOMMENDATION 11

An **AMS** is a special clinic with health care workers and services for taking care of patients on blood thinners. You can go there for INR testing and medication changes.

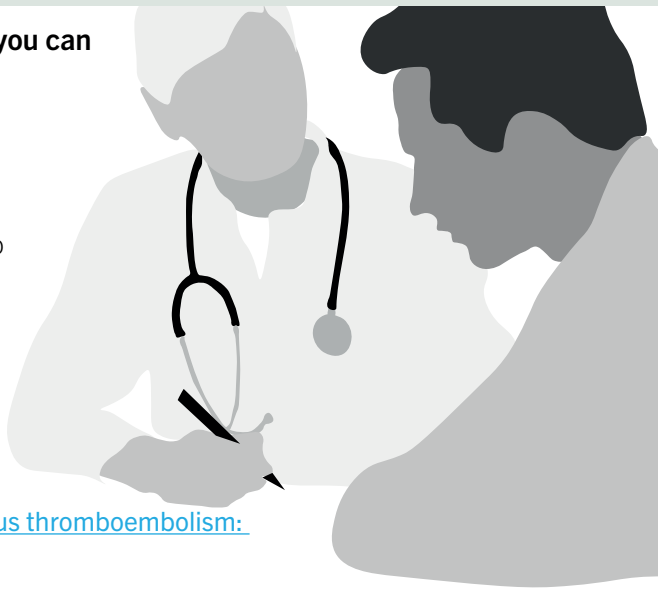
Benefits: Going to an AMS may decrease your chances of a blood clot and of having a major bleed. It may also increase the time you are in your target range. It may not have an effect on your quality of life or your chances of dying compared to going to your usual health care provider.

Harms: There may be some costs if you go to an AMS.

SPEAKING WITH YOUR HEALTH CARE PROVIDER

To understand what you need to know when taking a blood thinner, you can speak to your health care provider about

- your blood thinner
- how to take your blood thinner as prescribed
- the tests you may need
- whether you are able to test your own blood at home and make changes to your blood thinner based on your test results
- whether you can have training to test your own blood
- the costs of testing



Link to the guidelines:

American Society of Hematology 2018 guidelines for management of venous thromboembolism: optimal management of anticoagulation therapy

Daniel M. Witt, Robby Nieuwlaat, Nathan P. Clark, Jack Ansell, Anne Holbrook, Jane Skov, Nadine Shehab, Juliet Mock, Tarra Myers, Francesco Dentali, Mark A. Crowther, Arnav Agarwal, Meha Bhatt, Rasha Khatib, John J. Riva, Yuan Zhang, Gordon Guyatt; American Society of Hematology 2018 guidelines for management of venous thromboembolism: optimal management of anticoagulation therapy. Blood Adv 2018; 2 (22): 3257–3291.
doi: https://doi.org/10.1182/bloodadvances.2018024893

Funding and conflicts of interest:
Funding for this patient version and the original version of the guideline was provided by the American Society of Hematology.
The contributors to this version had no conflicts of interest.

Date: 21 December 2021