



Blood clots (venous thromboembolism) when you are pregnant or breastfeeding



The information in this pamphlet is for people who are pregnant, just delivered their baby, or are breastfeeding

If you are pregnant, you are at a higher risk than normal of having a blood clot. If you are at high risk, your health care provider may prescribe a treatment to prevent a blood clot from happening or to treat a blood clot if it already happened. Your treatment will also depend on your stage of pregnancy: you are pregnant, you are in labor, you have given birth, or you are breastfeeding.

What are blood clots (also called venous thromboembolism – VTE)?

On the outside of the body, blood clots can be good. They stop the bleeding after an injury, like a cut on your hand or arm.

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 in the legs can also break off and go to the lungs.

A blood clot can cause complications in about 1 out of 1,000 deliveries.

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Who is at risk of a blood clot around the time of pregnancy?

HIGH RISK

- you have thrombophilia – a condition in which your blood can form clots very easily
- you had a blood clot before and doctors didn't know why (“unprovoked”)
- you had a blood clot before because you had high levels of hormones in your blood (such as when you were pregnant before or while taking some types of birth control pills)
- you have a mix of other risks, such as:
 - › someone else in your family had blood clots
 - › you were obese before getting pregnant
 - › you smoked a lot before getting pregnant
 - › you have preeclampsia
 - › you had an emergency C-section
 - › you had a lot of bleeding or an infection after you delivered your baby
 - › your baby had a very low birth weight

LOW RISK

- healthy and have not had a blood clot before
- you had a blood clot before and it was because you:
 - › were in the hospital
 - › had a bad or traumatic injury
 - › had surgery
 - › were in bed for a long time
 - › had cancer
 - › you have low risk thrombophilia



Preventing a blood clot

While pregnant and after delivery

If you have not had a blood clot before, do not have thrombophilia, or do not have anything (or just one thing) that puts you at high risk, your doctor may tell you not to take a blood thinner during your pregnancy or after delivery.

If you have thrombophilia or have more than one thing that puts you at high risk, you may need to take a blood thinner during your pregnancy and after delivery. You and your health care provider will decide together.

The dose of low molecular weight heparin (a blood thinner) may be a regular dose during your pregnancy. But after you deliver your baby, you may have either a higher dose or a standard low dose.

During labor and delivery

There has been a question about whether women taking medicine to prevent a clot should have a normal delivery or if the delivery should be scheduled (either with a C-section or being induced) and your medication stopped before the delivery.

It is suggested that you can deliver your baby normally if you are taking standard low dose heparin. You and your health care provider will decide together.



Blood thinners do not actually thin your blood. They increase the time it takes for your blood to clot.

Some blood thinners are given by needle. Heparin is a blood thinner given by needle. There are two types:

- standard or unfractionated heparin (UFH)
- low molecular weight heparin (LMWH) - dalteparin (Fragmin), enoxaparin (Lovenox), tinzaparin or nadroparin

You can have UFH in hospital or by injection. You can give yourself LMWH or get it at the doctor's office.

There are other blood thinners, but they cannot be taken during pregnancy.

Treating a blood clot

While pregnant and after delivery

If you have blood clot while you are pregnant, and it is not a high risk blood clot, you will likely be treated at home and not be admitted to the hospital.



Women who stay at home while pregnant or go home early after delivering their baby, may

- have the same benefits
- be happier at home
- have a lower chance of catching an infection than if they stayed in hospital

The blood thinner you take will be low molecular weight heparin rather than unfractionated heparin. This is because there may be a slightly higher risk of breaking a bone if you take full dose unfractionated heparin for long periods of time during pregnancy.

Deep Vein Thrombosis and Pulmonary Embolism.

If you have a blood clot that is in a vein deep in the body (also called a deep vein thrombosis) or in your lung (pulmonary embolism), your health care provider will treat you with a blood thinner.

Superficial vein thrombosis.

If you have a blood clot that is not in a vein deep in the body (also called a superficial vein thrombosis), your health care provider may treat you with a blood thinner.



Benefits: there may be 11 fewer people with a deep vein thrombosis and 13 fewer people with a superficial vein thrombosis out of 1 000 people who take a blood thinner.

Harms: the number of people with major bleeding may be the same with or without a blood thinner

During labor and delivery

If you had a blood clot and are taking full dose blood thinners, your health care provider may suggest that you schedule your delivery. You may be induced or have a C-section. Before you deliver, the health care provider will also stop your medication. A scheduled delivery may be better because it may decrease your chances of having a major bleed and ensure that you can have an epidural.



While breastfeeding

Taking blood thinners while breastfeeding is a concern because some drugs can go into your breast milk and go to your baby.

Your health care provider **will** treat you with either

- Heparin – low molecular weight heparin or unfractionated heparin
- fondaparinux
- vitamin K antagonists (VKA) – warfarin, Coumadin, acenocoumarol (Nicoumalone)
- danaparoid (Orgaran)

Your health care provider **will not** treat you with

- direct oral anticoagulants (DOACs) - apixaban (Eliquis), dabigatran (Pradaxa), edoxaban (Lixiana or Savaysa), or rivaroxaban (Xarelto).

Speak with your health care provider

To understand more about what will happen during your pregnancy, you can ask:

- if you are at low or high risk of a blood clot
- what are the symptoms of blood clots to watch for
- if you need to have medicine to prevent a blood clot from happening
- if you had a blood clot already – what kind it was
- if you had a blood clot – what medicine you need
- what will happen during your pregnancy and after
- if you will need to schedule your delivery





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recommendations

Shannon M. Bates, Anita Rajasekhar, Saskia Middeldorp, Claire McLintock, Marc A. Rodger, Andra H. James, Sara R. Vazquez, Ian A. Greer, John J. Riva, Meha Bhatt, Nicole Schwab, Danielle Barrett, Andrea LaHaye, Bram Rochweg; American Society of Hematology 2018 guidelines for management of venous thromboembolism: venous thromboembolism in the context of pregnancy. *Blood Adv* 2018; 2 (22): 3317–3359.

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