

How does pregnancy affect my vein disease risk?

Pregnancy increases a woman's risk of developing blood clots in the deep veins of the legs ([deep vein thrombosis](#)), or DVT) that can travel to the lungs, causing a potentially deadly pulmonary embolism.

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Pulmonary embolism is the number one cause of maternal death in the US.

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About 1 in every 500 pregnancies is complicated by blood clotting problems.

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A woman's clot risk is about four times higher than normal during pregnancy. Risk is actually highest in the first few months after the baby is born (called the *postpartum* period). The risk of DVT is five times higher during the postpartum period than during pregnancy, and the risk of pulmonary embolism is

fifteen times higher

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If you are pregnant or planning to become pregnant, it is important to know if you have other factors that put you at risk for blood clots. If you are at high risk, working with your doctors to decide on a strategy to prevent clots will protect your health and the health of your baby.

See also:

[High Blood Pressure & Pregnancy](#)

[Pregnancy & Heart Failure Risk](#)

[Pregnancy & Stroke Risk](#)

Why do women develop blood clots during and after pregnancy?

Pregnancy and the postpartum period are times of massive changes in a woman's body. During pregnancy, hormonal changes prepare the woman's body to support and provide oxygen and

nutrients to the growing fetus. These hormonal changes also affect blood clotting and blood flow.

During pregnancy, the woman's body produces more blood clotting substances in order to limit blood loss during labor and delivery. A side effect of this change is that blood clots in the veins are more likely to form. Patterns of blood flow in the woman's body also change during pregnancy. The volume of blood increases to supply the fetus, and as the uterus grows it puts pressure on the veins in the pelvis, causing blood to flow back to the heart more slowly. Slow-flowing blood is more likely to form clots.

The changes of pregnancy take place gradually over a period of months as the fetus grows. After the baby is born, these changes are rapidly reversed as the body returns to normal. These fast changes in blood flow and hormones are why the risk of blood clots is so high during the postpartum period.

Who is at risk?

Blood clots during pregnancy can happen to any woman. However, women with other characteristics or conditions that raise her risk of blood clots are much more likely to develop blood clots while they are pregnant. Some conditions that increase a woman's risk of blood clots during pregnancy:

- Inherited [blood clotting problems](#) ^{3,4}
- Previous [deep vein thrombosis or pulmonary embolism](#)
- [Smoking](#) ⁵
- Previous blood clots in the surface veins of the leg⁵
- Mechanical heart valves
- Recurrent early pregnancy loss or unexplained late pregnancy loss
- Caesarean delivery, especially emergency C-section⁶
- Obesity⁷
- Age over 35 years⁷

What can I do to prevent blood clots during and after pregnancy?

Women without Other Blood Clot Risk Factors

Women who do not have any other risk factors for blood clots in the veins do not usually need to take special steps during pregnancy. Most blood clots occur in women who have other conditions that put them at risk. However, it is a good idea for all women to stay as active as possible to keep blood moving and reduce the risk of clots. Talk to your doctor about safe ways to stay active during pregnancy, and try to get up and moving as soon as possible after the baby is born.

You should also be familiar with the [symptoms of DVT](#). It can sometimes be difficult to tell DVT symptoms from the leg pain and swelling that is common during pregnancy, but do not take a chance. Talk to your doctor about any symptoms you are experiencing and she or he can decide if you need tests to make sure they are not caused by a blood clot. A Doppler ultrasound, the most commonly used test to diagnose DVT, is similar to an ultrasound used to view the fetus in the womb and is completely safe for the baby.

Prolonged immobility, such as during long-haul flights, increases your risk of blood clots, and this risk may be even higher in women who are pregnant. If you are planning to fly during or shortly after pregnancy, talk to your doctor about whether it is safe and what you can do to minimize the risk of a blood clot.

Women with Previous DVT or PE

Just because you have had a DVT or PE in the past does not mean that you cannot have a baby. However, pregnancy does carry greater risks for you and your baby, and you should discuss them with your doctor before you make the decision to get pregnant.

If you have had a blood clot problem before you will need to be closely monitored during and after pregnancy. In some cases, you may need to take blood-thinning drugs during and/or after pregnancy to prevent clots. Although some blood-thinning drugs (particularly warfarin) should

not be used during pregnancy, Low Molecular Weight Heparin and Unfractionated Heparin are safe to use during pregnancy and do not pose much risk to the mother or baby.⁸

If you have suffered a DVT or PE before, but have no other blood clot risk factors, you usually do not need to take drugs during pregnancy. However, you should receive blood-thinning drugs for two to six weeks after the baby is born, when blood clot risk is highest and there is no danger of the medication harming the baby.^{1,9} You should also wear graduated compression stockings during and after pregnancy to prevent clots, and get up and moving as soon as possible after the baby is born.

Women with Other Clot Risk Factors

Some women may need to take blood-thinning medications both during and after pregnancy because they are at high risk for clots. This includes women who:¹⁰

- Were taking blood-thinning drugs before they became pregnant
- Had previous blood clot problems during pregnancy
- Have high-risk inherited [blood clotting problems](#)
- Suffered two or more blood clot problems in the past

Although these conditions put women at higher risk for blood clots, few large studies of blood-thinning drugs in pregnant women have been performed. You should discuss the possible risks and benefits with your doctor and understand all your options. Together you can decide on a blood clot prevention plan that works for you.

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