

VTE in pregnancy

A plain-English guide for you and your family

WHAT IS HAPPENING

When you're pregnant, your body deliberately makes your blood stickier so you won't bleed too much when the baby is born. That's protective — but it also means clots can form too easily, especially in the deep veins of your legs where blood pools and slows down under the weight of the growing uterus. If a clot forms and breaks loose, it can float up through your heart into your lungs and block the oxygen supply — that's called a pulmonary embolism (a clot lodging in a lung artery), or PE, and it's the most dangerous complication. The risk is highest if you've had a clot before, have inherited clotting disorders, are on bed rest, or deliver by cesarean. Warning signs include one leg suddenly swelling and hurting, or — if a clot has reached the lungs — sudden chest pain, trouble breathing, a racing heart, or low oxygen. Treatment is safe: daily injections of a blood thinner called low-molecular-weight heparin (LMWH) that doesn't cross the placenta and won't harm the baby. You'll stay on it through pregnancy and for at least six weeks after delivery, because the clot risk doesn't drop until your hormones and blood flow return to normal. The key is catching it early and keeping the blood thin enough to stop new clots without causing dangerous bleeding.

What you might feel

- Leg swelling on one side (usually the left leg)
- Leg pain or tenderness, especially deep in the calf or thigh
- Warmth and redness over the swollen area
- Sudden shortness of breath and chest pain (sharp, worse with a breath in)
- Fast heart rate (over 100 beats per minute at rest)
- Coughing up blood or pink, frothy spit
- Feeling lightheaded or passing out

Call the doctor right away if...

- Sudden shortness of breath or chest pain (sign of a pulmonary embolism (a clot lodging in a lung artery), which can be life-threatening)

- Coughing up blood
- Feeling faint, dizzy, or passing out (sign that blood pressure is dropping)
- Fast heart rate at rest (over 100) with trouble breathing
- Severe, sudden leg swelling with very tight, shiny skin (may mean a large clot)

What the care team will do

- Check oxygen saturation with pulse oximeter and listen to lung sounds every 2 to 4 hours
- Measure the circumference of both calves and thighs at the same spot each shift and compare the numbers
- Give the LMWH shot into the fatty tissue of the abdomen at the exact same times each day and rotate injection sites
- Apply graduated compression stockings with 30 to 40 mmHg pressure and keep the affected leg elevated above heart level when resting
- Watch injection sites and gums for unusual bleeding and test stool for hidden blood daily
- Teach the patient to report new calf pain, chest pain, or sudden breathlessness immediately and never massage the affected leg
- Check platelet count before starting LMWH and then every 3 days for the first 2 weeks
- Coordinate with the obstetric team to plan the exact time to stop LMWH before delivery and when to restart it after birth

Medicines you may be given — and why

Enoxaparin (Lovenox)

Blocks factor Xa, a key step in the clotting waterfall, so the blood stays thin enough to flow through the clot or stop it from growing. Does NOT break up a clot that already exists—it just stops new clots from forming and keeps the current one from getting bigger.

Dalteparin (Fragmin)

Blocks factor Xa, a key step in the clotting waterfall, so the blood stays thin enough to flow through the clot or stop it from growing. Does NOT break up a clot that already exists—it just stops new clots from forming and keeps the current one from getting bigger.

Warfarin (Coumadin)

Blocks vitamin K in the liver, which the liver needs to make several clotting factors (II, VII, IX, X). Without enough of these factors, the blood stays thinner and clots form more slowly.

Unfractionated heparin (IV or shot)

Blocks both factor Xa and thrombin (factor IIa), two key steps in the clotting waterfall, so the blood stays thin. Works faster than LMWH and wears off faster, which is useful around delivery when you need to stop and start quickly.

Where this information comes from

- ACOG Practice Bulletin No. 196: Thromboembolism in Pregnancy (2018)
- American Society of Hematology (ASH) Guidelines on VTE in Pregnancy (2018)
- American College of Chest Physicians (CHEST) Antithrombotic Therapy for VTE Disease (2021)
- Royal College of Obstetricians and Gynaecologists (RCOG) Green-top Guideline No. 37b: Thromboembolic Disease in Pregnancy

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