

Patient information

Venous Thrombosis in Pregnancy and After Birth

Haematology Liverpool

What is a venous thrombosis?

A thromboembolism is a blood clot in a blood vessel (a vein or an artery). A clot that occurs in a vein (taking blood towards the heart and lungs) is a venous thromboembolism. Deep vein thrombosis (DVT) is when a blood clot forms in a deep vein of the leg, calf or pelvis. If the clot moves to the lung, it is called pulmonary embolism (PE).

What is a deep vein thrombosis (DVT)

Deep-vein thrombosis is a blood clot in the veins, usually in the leg or pelvis, although it can happen elsewhere in the body. These veins go through the muscle and cannot be seen under the skin.

When a DVT develops, the blood flow through the vein is either partially or completely blocked by a blood clot.

What are the symptoms of a DVT?

The symptoms of a DVT usually occur in only one leg and include:

- A red and hot swollen leg.
- Swelling in your entire leg or just part of it.
- Pain and/or tenderness – you may only experience this when standing or walking or it may just feel heavy.

During pregnancy, swelling and discomfort in both legs is common and does not always mean there is a problem. Always ask your doctor or midwife if you are worried.

What is a pulmonary embolism (PE)?

A PE is a blood clot, or more usually a number of blood clots, that get lodged in the blood vessels of the lungs. They typically arise from a blood clot in the veins of the legs or pelvis, called deep vein thrombosis (DVT). All or part of the DVT becomes dislodged and travels with the natural flow of blood back to the right side of the heart and through into the lungs. The clot then gets stuck in the small vessels of the lung.

What are the signs and symptoms of PE?

PE commonly causes chest pain and shortness of breath. Other symptoms include coughing up blood, feeling dizzy or faint and sometimes collapse. PE can occasionally be life threatening. Some people do not have symptoms at all and the PE is an unexpected finding on a scan performed for another reason

Seek advice immediately from your doctor or midwife if you notice any of these symptoms.

Who is at risk of thromboembolism?

Pregnant women are four-six times more likely to develop venous thromboembolism than women who are the same age and not pregnant. Venous thromboembolism related to pregnancy can occur at any stage of pregnancy and for six weeks after birth. This is due to changes in the body caused by being pregnant.

Additional risks for developing venous thromboembolism in pregnancy are when you:

- Have had a previous venous thromboembolism.
- Have a thrombotic condition called thrombophilia makes a blood clot more likely.
- Are over 35 years of age.
- Are overweight – body mass index (BMI) over 30.
- Have had three or more babies.
- Are pregnant as a result of IVF (in-vitro fertilisation).
- Are carrying more than one baby (multiple pregnancy).
- Have severe pre-eclampsia.
- Have just had a baby by Caesarean.
- Are immobile for long periods of time, for example, after an operation or when travelling, for four hours or longer.
- Have a close blood relative (e.g. brother/sister/mother/father) that has had a venous thromboembolism.
- Are a smoker.

When you first book with your midwife they will do a risk assessment, if you are classed as 'high-risk' you will be offered an appointment with a consultant/ specialist nurse at the hospital and may be offered preventative treatment such as special blood thinning injections (anticoagulant) daily throughout your pregnancy to help reduce the risk of developing a clot (see below for further information). You or a family member will be taught how to give these injections. This risk assessment will also be done if you are admitted to the hospital and, once you have had your baby, you will also be given a pair of special compression (surgical) stockings to wear whilst you are in hospital.

How to reduce the risks of thromboembolism

- Lose weight before pregnancy if you are overweight.
- Keep as active as possible.
- Keep well hydrated.
- Stop smoking.

How is venous thromboembolism diagnosed during pregnancy?

DVT

Your doctor/specialist nurse will examine your leg. He or she will organise some blood tests and then may offer you an ultrasound scan of your leg to see if there is a clot. If no clot is seen but you are still having symptoms, the scan may be repeated after one week.

Pulmonary Embolus

The tests may include:

- A chest X-ray (this can also identify common problems which could be the cause of your symptoms, such as a chest infection).
- A CT scan (specialised X-ray) of your lungs.
- A VQ scan (ventilation perfusion) of your lungs. This needs a drip into a vein in your arm.
- An ultrasound of both your legs to look for an existing blood clot which may be present but not have caused you any symptoms.

Are there any risks associated with having the tests?

The chest X-ray, CT scan and VQ scan use radiation (X-rays). You may be concerned about the risk of these tests to the baby. The chest X-ray uses a very small dose of radiation and the baby will be shielded from the X-rays with a lead apron. The risk to your baby of developing cancer in childhood after a VQ scan is extremely rare (one in a quarter of a million). Such a tiny risk with CT and VQ scans need to be weighed up against the risk to mother and baby of undiagnosed venous thromboembolism. A CT scan gives a higher dose of radiation to your breasts than a VQ scan and the lifetime risk of breast cancer may be increased. The risk may be increased from around one in 12 to one in nine over your lifetime.

What is the treatment for venous thromboembolism?

As soon as your doctor suspects you have a venous thromboembolism, you will be advised to start on treatment with an injection of heparin (an anticoagulant) to increase the time your blood takes to clot. Although they are often called blood thinners, they do not actually thin the blood. There are different types of heparin. The most commonly used in pregnancy is 'low-molecular-weight heparin' (LMWH); if you are already taking this the dose will be increased.

For most women, the benefits of heparin are that it:

- Works to prevent the clot getting any bigger so your body can gradually dissolve the clot.
- Reduces the risk of a pulmonary embolus.
- Reduces the risk of another venous thrombosis developing.

What does heparin treatment involve?

Heparin is given as an injection under the skin at the same time(s) every day. The dose is worked out for you according to your weight. You (or a family member) will be shown how and where in your body to do the injections. You will be provided with the needles and syringes (usually already made up) and you will be advised on how to store and dispose of these. You will have regular check-ups, including blood tests, as an outpatient. You will probably not need to stay in hospital.

How long will I need to take heparin?

Treatment is usually recommended for the remainder of your pregnancy and for at least six weeks after the birth. The minimum treatment time is three months. Contact your doctor/specialist nurse if you experience any worrying symptoms when you are taking heparin (such as chest pains, unexpected bruises, or a sudden change in your health). Also contact your doctor/specialist nurse if you have any heavy bleeding during this time.

Are there any risks to me and my baby from the heparin?

Low-molecular-weight heparin cannot cross the placenta to the baby and so is safe to take when you are pregnant. There may be some bruising where you inject which will usually fade in a few days. One or two women in every 100 (one–two %) will have an allergic reaction when they inject. If you notice a rash after injecting, you should inform your doctor so that the type of heparin can be changed.

What should I do when labour starts?

Most women with a DVT continue with their pregnancy normally. If you think that you are going into labour, do not take any more injections. Phone your hospital immediately and tell them that you are on heparin treatment. They will advise you. If the plan is to induce labour, you should stop your injections 24 hours before the planned date. An epidural injection (given into the space around the nerves in your back) cannot usually be given until 24 hours after your last injection. Alternative pain relief options will be discussed. An individual plan will be made with you.

What if I have a planned Cesarean birth?

Your last heparin injection should be 24 hours before the planned Caesarean birth (operation to deliver your baby). The heparin will usually be re-started within Four-six hours of the operation.

What happens after birth and can I breastfeed?

Treatment should be continued for at least six weeks after birth. There is a choice of treatment after birth – either continuing with injections of heparin or using oral tablets. Your doctor/specialist nurse will discuss your options with you.

Both heparin and warfarin are safe to take when breastfeeding, however NOACs are not.

After birth, you will usually be given an appointment with your GP, obstetrician (birth specialist) or Haematologist (blood specialist).

At your appointment the doctor/specialist nurse will:

- Ask about your family history of thromboembolism and discuss tests for conditions which make thromboembolism more likely (thrombophilia). These should ideally be done before any future pregnancies.
- Discuss your options for contraception (you should be advised not to take any contraception that contains oestrogen, for example, the 'combined pill').
- Discuss future pregnancies: you will usually be recommended heparin treatment during and after your next pregnancy.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

If you need any further information please contact Haematology Liverpool or use the links below.

Haematology Liverpool

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Text phone number: 18001 0151 706 3377

- <http://www.rcog.org.uk/globalassets/documents/patients/patient-information-leaflets/pregnancy/pi-reducing-the-risk-of-vt-in-pregnancy.pdf>
- <http://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg37a>

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