

# Reducing the risk of venous thrombo- embolism (VTE) in pregnancy



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## **What is venous thrombo-embolism (VTE)?**

This is a medical term that describes a blood clot that develops usually in the deep veins of the leg (deep vein thrombosis) or when part of a blood clot breaks off from the leg and travels to your lungs (pulmonary embolism).

In healthy adults the clotting of blood is the body's normal response to an injury. In pregnancy the body's clotting system naturally becomes stronger, which can lead to an increased risk of developing a clot. VTE is a potentially serious medical condition that requires immediate treatment.

## **What are the symptoms of a deep vein thrombosis (DVT) during pregnancy or after birth?**

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

- a red and hot swollen leg
- swelling of your entire leg or just part of it, or it may just feel heavy
- pain and/or tenderness – you may only experience this when standing or walking.

During pregnancy, swelling and discomfort in both legs is common and does not always mean that there is a problem.

## **What are the symptoms of pulmonary embolism (PE) during pregnancy or after birth?**

The symptoms of a PE can include:

- sudden unexplained difficulty in breathing
- a fast heart rate
- tightness in the chest or chest pain especially when breathing in
- a persistent dry cough or coughing up of blood (haemoptysis)
- feeling very unwell, dizzy or faint, or collapsing.

## **How common is VTE in pregnancy?**

Pregnancy increases your risk of developing a VTE, with the highest risk being just after you have had your baby. However, VTE is still uncommon in pregnancy or in the first 6 weeks after birth, occurring in only 1–2 in 1000 women. Having additional risk factors for VTE may increase your risk as much as 5 times.

## **What can increase my risk of DVT or PE?**

You may be at increased risk of venous thrombosis if any of the following apply to you.

### **Before pregnancy**

If you:

- are over 35 years of age
- have already had three or more babies
- have had a previous VTE
- have a mother, father, brother or sister who has had a VTE
- have a thrombophilia (a condition that makes a blood clot more likely)
- have a medical condition such as heart disease, lung disease or arthritis – your doctor or midwife will be able to tell you whether any medical condition you have increases your risk of a DVT/PE
- have severe varicose veins that are painful or extend above the knee with redness/swelling.

### **Lifestyle**

If you:

- are overweight with a body mass index (BMI) over 30
- are a smoker or use intravenous drugs.

### **During pregnancy**

If you:

- are admitted to hospital
- are carrying more than one baby (multiple pregnancy)
- become dehydrated or less mobile in pregnancy for example due to vomiting in early pregnancy, being admitted to hospital with a severe infection or if you are unwell from fertility treatment (ovarian hyperstimulation syndrome)
- are immobile for long periods of time, for example after an operation or when travelling for 4 hours or longer (by air, car or train)
- have pre-eclampsia.

## **After the birth of your baby**

If you:

- have a very long labour (more than 24 hours) or have **had a Caesarean section**, lose a lot of blood after you have had your baby or receive a blood transfusion
- have more than one of the pre-existing VTE risks identified above.

You will have a risk assessment completed at the beginning of your pregnancy and again after you have had your baby which will allow your doctor or midwife to determine whether you are at increased risk of VTE.

## **What happens if I am assessed as at risk of VTE?**

If you are assessed as at risk of blood clots in pregnancy you may be given an appointment to attend a specialist midwife clinic. It is important that you attend this appointment as it will allow the VTE specialists to discuss with you your risks of developing blood clots in pregnancy and the preventative measures which can be taken to reduce your likelihood of developing a VTE. The midwife will go through your medical history with you and ensure your pregnancy care is planned correctly.

In most cases you will be offered a preventative treatment in the form of an anticoagulant (blood-thinning) injection – Low Molecular Weight Heparin (LMWH). If LMWH is given to you to prevent VTE the dose you will receive will be based on your weight in early pregnancy. The midwife will provide you with a prescription for this at your appointment and teach you or family member how to administer it.

The benefits of Low Molecular Weight Heparin are that it:

- works to prevent the majority of blood clots that may form in the deep veins of the leg, calf or pelvis
- reduces the risk of a pulmonary embolism (PE).

## **What does LMWH treatment involve?**

Heparin is given as an injection under the skin (subcutaneous) at the same time every day (sometimes twice daily).

Individual pre-filled syringes of the heparin will be provided and you will be given advice on how to store and dispose of these.

The heparin you will be offered is of animal origin – if you have any concerns regarding this you will be able to discuss these and any alternative options with the VTE specialists or your midwifery team.

### **Are there any risks to my baby or me from heparin?**

LMWH does not cross the placenta and therefore cannot harm your baby. There may be some bruising where you inject – this will usually fade in a few days.

One or two women in every 100 (1–2%) may develop an allergic reaction to the heparin. If you notice a rash after injecting, you should inform your doctor so that the type of heparin can be changed.

### **How will this affect my pregnancy?**

LMWH is a safe and commonly used drug which does not cross the placenta, it does however, minimally increase the risk of bleeding following the birth.

If you experience any bleeding during your pregnancy you should stop injecting LMWH until the bleeding has stopped.

Because of this it is not recommended to have your baby at home or in a birth centre away from hospital. We would suggest considering the alongside birth centre (Truro Birth Centre) or delivery suite instead depending on your circumstances.

An epidural/spinal block could not be sited if LMWH has been administered within the preceding 24 hours and you should stop this immediately if you go into labour or before any planned admission for induction or elective caesarean.

LMWH can be re-started 6-8 hours following delivery for a total of six weeks post-partum providing haemostasis remains secure.

## How long will I need to take heparin?

Your doctor, midwife or VTE specialist will advise you on when you will need to start the injections and the overall duration of the treatment. This will depend on your risk assessment. For example: after birth it may be for 10 days after emergency Caesarean section or up to 6 weeks depending on your risk factors.

## Can I breastfeed?

Yes – heparin is safe to take when breastfeeding.

## Are there other measures to help reduce my risk of DVT or PE?

Yes. These include:

- **Anti-embolism stockings** – if necessary you will be measured and fitted with knee-length anti-embolism stockings. These work by reducing damage to the leg veins, which distend when you are not mobile. Small tears to these veins cause activation of the clotting mechanism. The stockings also promote flow of your blood back to the heart.

You will be shown how to apply the stockings. The stockings should be worn day and night whilst you are in hospital, but can be removed to wash or have a shower. At home, wear them for a minimum of 10 days or until you return to your usual level of mobility.

- **Compression devices** – these are inflatable sleeves, which are fitted around your foot or calf whilst you are immobile. They inflate at regular intervals and increase the flow of your blood back to the heart.

## What can I do to reduce my risk of DVT or PE?

There are a number of steps you can take to reduce your risk of developing DVT or PE in pregnancy. These include:

- cutting down or stopping smoking
- maintaining a healthy weight during pregnancy
- remaining mobile, both during pregnancy and after the birth of your baby
- simple leg exercises – point your toes down and bend the foot up at regular intervals as this helps to pump blood back to the heart. Do this at least ten times an hour during the daytime, particularly when you are inactive for long periods of time

- avoiding dehydration – the World Health Organisation recommends a daily intake of three litres of water especially if the weather is warm or you are exercising.

## Any questions?

If you have any queries or worries about your treatment please contact:

Tel: 01872 258000 or

Email: [rcht.VTEmidwifeenquires@nhs.net](mailto:rcht.VTEmidwifeenquires@nhs.net)

If you have been advised to start LMWH injections in pregnancy you may like to watch this video (scan)



If you would like this leaflet in large print, braille, audio version or in another language, please contact the General Office on 01872 252690

