Reducing your risk of blood clots (venous thrombosis) during pregnancy and after birth

This leaflet is about how you can reduce your risk of a blood clot that can sometimes occur in a vein during pregnancy.

What is venous thrombosis?

Thrombosis is a blood clot and venous means in a vein or an artery, the blood vessels that take blood back to the heart and lungs.

A deep vein thrombosis (DVT) is a blood clot that forms in a deep vein of the leg, calf or pelvis. If the clot comes loose, it can travel through the blood stream to your lung. This is called a pulmonary embolus (PE).

What are the symptoms of a DVT or PE?

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

- your leg may become red, and be hot and swollen
- pain and/or tenderness – you may only experience this when standing or walking or it may just feel heavy

It is important to note that during pregnancy, swelling and discomfort in both legs is common and does not always mean there is a problem.

Symptoms of a PE include:

- sudden unexplained difficulty in breathing
- tightness in the chest or chest pain
- coughing up blood
- feeling very unwell or collapsing

Always ask your doctor or midwife if you are worried.

Who is at risk of venous thrombosis?

If you are pregnant you are ten times more likely to develop venous thrombosis than women or birthing people who are the same age and not pregnant. However, it is still uncommon, occurring in only 1-2 in 1000 people (0.1-0.2%). Venous thrombosis related to pregnancy can occur at any stage of pregnancy and for six weeks after birth. This is due to the changes in how your blood clots during pregnancy and around the time of birth.

Additional risks for developing a venous thrombosis in pregnancy include:

- a previous venous thrombosis
- a condition called thrombophilia, which makes a blood clot more likely
- being over 35 years of age
- smoking
- being overweight – body mass index (BMI) over 30
- pre-eclampsia
- multiple pregnancy (twins or more)

- having a very long labour (more than 24 hours); a caesarean section; excessive bleeding after birth; or receiving a blood transfusion
- being immobile for long periods of time (e.g. after an operation or when travelling for four hours or longer)
- being severely dehydrated which can be caused by excessive vomiting in early pregnancy, severe infection (e.g. kidney infection) or unwell from fertility treatment (ovarian hyperstimulation syndrome)

When will your risk be assessed?
Your community midwife or obstetrician will assess your level of risk in early pregnancy, at antenatal visits, during any admission to hospital and after birth. You will be advised if you require treatment to prevent thrombosis. If you are already taking **Warfarin** to prevent venous thrombosis, most people will be advised to change to **Heparin** before or as early as possible in pregnancy because **Warfarin** can be harmful to your unborn baby.

Can your risk of venous thrombosis change?
Yes: your risk can increase if you develop other risk factors, or decrease if, for example, you stop smoking.

How can you reduce your risk of getting a DVT or PE?
You can reduce your risk by:
- staying as active as you can
- keeping hydrated by drinking normal amounts of fluids
- stopping smoking
- losing weight before pregnancy or minimising weight gain during pregnancy if you are overweight
- wearing anti-embolic stockings (when prescribed)

You may be advised to start treatment with **Heparin** injections, usually a **Low-molecular-weight Heparin (LMWH)** commonly prescribed as **Dalteparin (Fragmin ®).** This is an anticoagulant used to thin the blood and will be prescribed by the hospital.

If you require long-term prevention after the birth, **Warfarin** tablets can be given. Your doctor will discuss your options with you.

What does Heparin treatment involve?
Heparin is given as an injection under the skin at the same time every day. You (or a family member) will be shown how and where in your body to give the injections. You will be provided with the pre-filled syringes and a sharps bin. You will be advised how to store and dispose of these.

How long will you need to take heparin?
The starting time and length of treatment will depend on your level of risk and whether your risk changes during pregnancy. There is a risk assessment scoring sheet which is filed in your hand-held notes. Treatment is prescribed depending on this score as the score represents your individual risk. Treatment may need to start in pregnancy for some people and may need to continue for up to 6 weeks after birth.

Are there any risks to you and your baby from heparin?
Low-molecular-weight Heparin does not cross the placenta to the baby and so it is safe to take when you are pregnant. It is also safe to take when you are breastfeeding.

- There may be some bruising to your skin where you inject, which usually fades in a few days.
- One or two people in every 100 (1-2%) will have an allergic reaction when they inject. If you notice a rash after injecting, tell your doctor so that the type of **Heparin** can be changed.
- If you have any bleeding e.g. nosebleed, blood in urine or stools, or vaginal bleeding, please contact your doctor or midwife.

What should you do when labour starts?
If you think that you are going into labour, do not administer any more injections. Phone the labour ward immediately, telephone numbers given below, and tell them that you are on **Low-molecular-weight Heparin (LMWH)** treatment.

Most people on **Low-molecular-weight Heparin (LMWH)** can have a normal labour, but it can affect pain relief options. An epidural injection (given into the space around the nerves in your back) cannot usually be given until 12 hours (24 hours if you are on a higher dose) after your last injection. Alternative pain relief will be discussed.

If the plan is to induce your labour, an individual plan will be made with you.

What if you have a caesarean birth?
Your last injection **Low-molecular-weight Heparin (LMWH)** should be 12 hours (24 hours if you are on a higher dose) before a planned caesarean delivery. If an emergency caesarean is required less than 12 hours (24 hours if you are on a higher dose) from your last **Low-molecular-weight Heparin (LMWH)** injection, it will still be possible to have your operation but you may not be able to have a spinal or epidural anaesthetic, you may need a general anaesthetic.

What happens after birth?
It is important to be as mobile as possible and to avoid dehydration. A risk assessment will be carried out and you may need to start or continue **Heparin** injections for 10 days or sometimes for 6 weeks after birth.

Low-molecular-weight heparin (LMWH) will be started as soon as possible after delivery (usually three hours). You will be advised to wait four hours after a spinal or epidural, or six hours if the procedure was difficult.

If you were taking **Warfarin** before pregnancy and have changed to **Heparin** during pregnancy, you can change back to **Warfarin**, usually 5 days after birth.

At your postnatal appointment, your doctor/GP should:

- discuss future pregnancies – you may be able to reduce your thrombosis risk e.g. stop smoking or lose weight before your next pregnancy, so **Heparin** treatment may not be necessary
- discuss your options for contraception – you may be advised not to use any contraceptive that contains oestrogen, such as the combined pill, as this can increase your risk of DVT.

Useful contact numbers

Antenatal Clinics	01296 316140	(Stoke Mandeville Hospital)
	01494 425569	(Wycombe Hospital)
Labour Ward	01296 316103	(Stoke Mandeville Hospital)
Rothschild Ward	01296 316280/1	(Stoke Mandeville Hospital)

Further information

Royal College of Obstetricians & Gynaecologists www.rcog.org.uk/guidelines Tel: 0207 772 6200

Green Top Guidelines:

- No. 37a: reducing the risk of thrombosis and embolism during pregnancy and the puerperium
- No. 37b: thromboembolic disease in pregnancy and the puerperium: acute management

RCOG Patient Information Leaflets:

- Reducing the risk of venous thrombosis in pregnancy and after birth
- Diagnosis and treatment of venous thrombosis in pregnancy and after birth

How can you help reduce healthcare associated infections?

Infection prevention and control is important to the well-being of our patients and for that reason we have infection prevention and control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections.

If you need advice or further assistance, please contact our patient advice and liaison service (PALS): call 01296 316042 or email bht.pals@nhs.net

Please remember that this leaflet is intended as general information only. We aim to make the information as up to date and accurate as possible, but please note that it is subject to change. Please therefore always check specific advice on any concerns you may have with your doctor.

Division of Women, Children & Sexual Health Services

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