

## Thrombosis and Women: periods, the contraceptive pill & hormone replacement therapy (HRT)

Thrombosis is the formation of dangerous blood clots.

Blood clots that form in the vein are known as **venous thrombosis** and are often known as:

- **Deep vein thrombosis (DVT)** when a blood clots in a deep vein (most often the leg)
- **Pulmonary embolism (PE)** when a blood clot breaks loose and travels to the lung arteries
- Collectively, DVT and PE are known venous thromboembolism - VTE.

Some risk factors associated with VTE are specific to women, and treatment options can have a significant impact on areas of women's health. This fact sheet is intended to share information about these areas in order to help inform and facilitate discussions between women and their own doctor / medical team on how to treat or prevent VTE.

### Anticoagulation

People who have been diagnosed with a DVT or a PE, or those who may be at high risk of developing a blood clot, are usually prescribed an anticoagulant (sometimes referred to as a 'blood thinner') such as warfarin, apixaban, dabigatran, edoxaban and rivaroxaban. Occasionally aspirin is used instead. These therapies are designed to reduce the 'stickiness' of the blood and so reduce the risk of a clot, or further clots, from forming.

### Heavy periods

For women, a common side-effect of anticoagulants are heavy periods.

Heavy blood loss during a period is inconvenient and uncomfortable, and left untreated, it may also cause iron deficiency (anaemia).

Treatment of iron deficiency (anemia) is to increase iron in the diet, give iron either as a tablet or intravenous infusion.

Another very effective solution to this problem is to reduce bleeding. This is often done by having a Mirena coil fitted. However, this is not a suitable option for women who are wanting to become pregnant or for a woman who has fibroids

For those who are suitable for the Mirena coil, it can be fitted at your local clinic and once inserted, it releases levonorgestrel (a synthetic form of the female sex hormone progesterone) into the womb which prevents the lining from thickening, thereby reducing the loss of blood each month. For many women, this can help relieve heavy blood loss during your period.

## Contraception

Oral contraception, known colloquially as 'the pill', is the most popular form of birth control.

The most commonly prescribed is the 'combined pill', which this contains both oestrogen and progestogen hormones. However, oestrogen hormones make the blood more 'sticky' and so increase the risk of venous thromboembolism (blood clots).

Therefore, it is recommended that any woman with previous blood clots and/or a known risk factor for thrombosis (such as antiphospholipid antibodies and antiphospholipid syndrome (APS)) should not use the 'combined pill' but instead, could consider and discuss with their doctor or nurse, a contraceptive that does not increase the risk of thrombosis such as one of the following:

- 1) The progestogen-only pill, known as the 'mini-pill'  
The progesterone only pill must be taken daily, missing a tablet does increase the risk of getting pregnant
- 2) Progesterone-only injections such as Depo-Provera. This lasts 8-12 weeks depending on which injection you have.  
More details can be found on <https://www.nhs.uk/conditions/contraception/contraceptive-injection/>
- 3) A contraceptive implant, such as Nexplanon. Further details about implant options is shared on:  
<https://www.nhs.uk/conditions/contraception/contraceptive-implant/>
- 4) Barrier methods such as condoms and the cap
- 5) The Mirena coil  
This is particularly suitable for women with heavy periods especially those on anticoagulation as it produces a hormone which reduces the length and size of periods. Further details of this option are available on:  
<https://www.nhs.uk/conditions/contraception/ius-intrauterine-system/>

If you are taking warfarin none of these options usually interfere with INR monitoring.

## Hormone Replacement Therapy (HRT)

All types of HRT contain an oestrogen hormone. The oestrogen in HRT is used to replace the oestrogen that ovaries no longer produce after the menopause.

HRT is regularly prescribed to women suffering from the effects of the menopause. However, oral (tablet) HRT more than doubles the risk of blood clots (venous thromboembolism) and so it is not recommended that women with known risk factors, or who have had a thrombosis or who are diagnosed with a condition associated with blood clots, are prescribed any form of HRT.

An alternative option that might be considered if assessed as medically appropriate for the individual, are HRT skin patches. These do not increase the 'stickiness' of the blood and so can be a safer alternative option for some women. However, this does need to be discussed with the individual's doctor, nurse or medical team.

Other treatments include a drug called 'clonidine', that is available in tablet form. It has also been found to be effective in reducing the effects of hot flushes experienced during the menopause. Clonidine is not a hormone replacement therapy, and so, for some people, is considered and prescribed in low doses to deal with hot flushes.