Menopause and Clots

WOMEN'S
Wellness Clinic

Can I take HRT if I have an increased risk of a blood clot?

When women reach the menopause, many suffer with debilitating symptoms due to a reduction in hormones. The most effective treatment to reduce these symptoms is Hormone Replacement Therapy, often called HRT. Unfortunately, many women have been told incorrectly that HRT is not suitable for them if they have a history (or are at high risk) of a blood clot.

"Is HRT safe if I have a high risk of getting a blood clot?"

This factsheet provides information about HRT and explains the risks and benefits of HRT for women who have a risk (or history of) a blood clot.

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What is thrombosis?

Thrombosis is the formation of dangerous blood clots. Clots most often occur in a deep vein in the leg and are known as Deep Vein Thrombosis (DVT). Untreated, parts of the clot may break off and travel to the lungs, where they can cause a blockage in the lungs, known as Pulmonary Embolism (PE). Both of these types of clots are known collectively as Venous Thromboembolism or VTE.

Signs of a DVT include: unexplained pain alone. In about 20% of cases there is also swelling, usually in one leg (or arm), leg pain or tenderness and a reddish/blue skin discoloration which is warm to touch.

Signs of a PE include: sudden shortness of breath, chest pain that is sharp or stabbing, (the pain may get worse when breathing in deeply), a rapid heart rate, and an unexplained cough that occasionally may bring up blood-streaked mucus. Sometimes a run of little clots may cause gradually increasing shortness of breath.

From puberty to menopause, a woman's risk of VTE is higher than a man's because pregnancy and the use of the combined oral contraceptive pill increase the risk of a blood clot developing.

What is menopause?

Menopause is the time in a woman's life when her ovaries stop producing eggs and her periods stop. When the ovaries stop functioning, the hormones estrogen, progesterone and testosterone are no longer produced. A decline in these hormones causes many women to suffer with symptoms such as hot flushes, joint aches and pains, fatigue, mood changes, anxiety, and a wide range of other symptoms. In addition, the low hormone levels that occur are associated with an increased risk of developing heart disease, osteoporosis, type 2 diabetes and dementia.

Although the average age of the menopause is 51 years, women can have menopausal symptoms for 5-10 years before their periods stop – this time is known as perimenopause. Occasionally, women experience an early menopause in their 30s or even 20s.

Hormone Replacement Therapy (HRT)

HRT gives the missing hormones back to your body. The main hormone that needs replacing is estrogen.

Women can take estrogen orally in tablet form, or through the skin (transdermal estrogen). Transdermal estrogen can be given in either a sticky patch (like a plaster) or in a gel or spray form that is applied to the thighs or arms.

If a woman still has her womb, she will also need to take progesterone (or a progestogen) if she takes replacement estrogen, this is because estrogen can thicken the lining of the womb and increase the risk of the cells becoming cancerous. Progesterone (or progestogen) works to counteract the effect of the estrogen by keeping the lining thin and the cells healthy.

The other hormone that is important in many women is testosterone. If a woman is still experiencing symptoms of fatigue, brain fog and low libido after taking estrogen for a few months, replacement testosterone can often relieve these symptoms.

Benefits of HRT

HRT is the most effective treatment for all menopausal symptoms because it directly targets the cause of the problem, which is low levels of hormones. After a few months of taking HRT, most women feel significantly better and more like their previous selves again.

Without HRT, women live with a hormone deficiency for the rest of their lives. HRT doesn't just improve menopausal symptoms; it also works to prevent future diseases that can be triggered or exacerbated by low hormones.

For example, osteoporosis is when your bones thin and it can occur to such a degree that you have a high risk of breaking them. HRT helps to prevent osteoporosis occurring.[1]

The risk of heart disease increases with age, and it is the leading cause of death for women. HRT has been shown to reduce the risk of women developing heart disease by 30-50%.[2]

Studies suggest that HRT reduces the risk of developing type 2 diabetes, bowel cancer, dementia, and depression[3].

Risks of HRT

There are two perceived risks that both women and healthcare professionals are concerned about when it comes to taking HRT: the risk of breast cancer and the risk of a blood clot. Unfortunately, these risks have been misreported in the media for the last 20 years and are mistakenly thought to be much greater than they are.

Breast cancer risk

The biggest fear associated with HRT is usually breast cancer, but the greatest risks of developing breast cancer often come not from HRT but your general health, lifestyle and family history.

If you smoke, drink alcohol frequently, exercise rarely, or are overweight, you are increasing your risk of all types of cancer, including breast cancer, much more than if you take HRT. For example, if you are very overweight, you have a much greater risk of breast cancer than a healthy person who takes HRT. It is important to recognise how your lifestyle affects the risk of getting breast cancer.

There might be a very small risk of breast cancer if you take combined HRT (estrogen and progestogen), however, studies show this risk is not present if micronised progesterone is taken instead of the older synthetic progestogens.[4] Micronised progesterone is body identical and has the same molecular structure as the progesterone you naturally produce. It is known as Utrogestan in the UK.

If you only need to take estrogen as your HRT (because you've had a hysterectomy), taking HRT has actually been shown to lower your risk of developing breast cancer compared to women who do not take HRT.[5]

HRT and risk of blood clot

It is important to understand that the reported link between HRT and risk of blood clot is based on a study that was twenty years ago, where women were given older types of estrogen (conjugated equine estrogen), older synthetic progestogens, and the estrogen was taken in tablet form.

It is therefore sensible to ask the questions: What risks do newer types of estrogen have? Is there a risk difference if the estrogen is taken by mouth or through the skin? And is it the estrogen or the type of progesterone that raises the risk of clot, or is it only when a combination of the two is used?

The more recent, good quality evidence shows us:

There is a small risk of a blood clot associated with oral estrogen tablets.[6]

High levels of estrogen in the liver (which can occur when oral estrogen is taken) can lead to sticky blood changes that increase the risk of VTE. This does not occur with estrogen used through the skin as a patch, gel or spray.

To understand how small this risk is, imagine a healthy woman of 50 years of age; she has a VTE risk of around 6 in 10,000 per year. If she took oral estrogen tablets, this would double her risk to around 12 in 10,000 but it's still a small risk overall.

The good news is that estrogen absorbed through the skin is much safer and does not cause sticky blood changes and therefore does not increase the risk of clot. Transdermal estrogen is the type of HRT that comes in a sticky skin patch, or a gel or spray that you rub into your skin.

To be clear, transdermal estrogen has no extra risk and is safe to take, even for those with a higher risk of getting a blood clot.

Progesterone – two types and this matters

There are two main types of progesterone – the hormone you need to protect your womb if you take replacement estrogen.

Progestogens are the synthetic type (chemically created), examples of these are medroxyprogesterone acetate (MPA), dydrogesterone, levonorgestrel, or drospirenone. Their chemical structure is different to that naturally produced by the ovaries and while they mimic some of the same effects as natural progesterone they don't act in the exact same way. These synthetic progestogens have been shown to be associated with a small increased risk of clot. In particular, MPA has been shown to have the highest risk of clot.[7]

Micronised progesterone, however, is a body identical hormone with a molecular structure identical to that of progesterone normally produced in the body; it is derived from the yam root vegetable. Branded as Utrogestan, and this has not been shown to cause any increase in the risk of getting a clot.[8]

The safest type of HRT to take – that doesn't increase your risk of a clot – is estrogen through the skin in a patch, gel or spray and micronised progesterone (if you still have a womb), known as Utrogestan.

Taking HRT when you have a condition with an increased risk of clot

The risk of thrombosis is affected by a woman's age, whether she smokes, varicose veins, obesity and many other factors.

Systemic Lupus Erythematosus (Lupus for short) and Antiphospholipid Syndrome (APS)

Women with lupus have a 3-4x higher risk of thrombosis than healthy women of a similar age. They may also face an increased risk of osteoporosis if they took high doses of steroids as part of their treatment. Antiphospholipid Syndrome occurs alone, or may occur in women with lupus too, and is associated with increased risk of clots.[9]

HRT could help women with lupus and APS by alleviating their menopausal symptoms and reducing their future risk of osteoporosis and heart disease. This is not well-known among many healthcare professionals, indeed women are very often told by healthcare professionals that HRT is too risky for them, or that they should only take a small dose for a very short time. But taking estrogen through the skin, and micronised progesterone (if they have a womb), will not raise their clot risk any further and the benefits to their quality of life and future health will often be significant.[9]

Factor V Leiden

Factor V is a blood protein used in making clots. Factor V Leiden is a common variant that makes blood more likely to have clots.

Postmenopausal women with Factor V Leiden have a 3-4x greater risk of VTE than women their age who do not have Factor V Leiden. When women with Factor V Leiden took oral estrogen, for HRT, their risk of VTE was magnified 25x, however, women with Factor V Leiden taking transdermal estrogen did not show any greater risk of clot than the 3-4x higher risk level from their condition.[10]

Cancer and cancer treatments

Cancer can increase the risk of developing a blood clot for many reasons. Many cancers can cause the blood to become 'stickier', which means it's more likely to clot, especially with cancer of the pancreas, bowel, lung, stomach, ovary, or womb. The risk is also higher in cancers that have spread to other parts of the body. Some forms of chemotherapy may cause sticky blood.

The hormone drug, tamoxifen, commonly prescribed for women with breast cancer, is also known to increase the risk of blood clots, but the benefits of tamoxifen are considerable, so some doctors give an anticoagulant alongside tamoxifen to protect the woman from clots.

For menopausal women with (or history of) cancer, healthcare professionals are often reluctant to provide HRT because of misunderstandings about the risk of breast cancer. In general, the only type of cancer where HRT may not be advised in the first

instance is estrogen-dependent cancer because cells can react negatively to additional estrogen in the body. For all other types of cancer, including non-estrogen-dependent breast cancer, HRT is usually safe.[11]

As with other conditions with a higher risk of clot, transdermal estrogen and micronised progesterone is the safest type of HRT to take if you have/had cancer.

Reduce your chance of a blood clot

For most women, the benefits of HRT outweigh the risks. For those at risk of a blood clot, HRT is safest when estrogen is absorbed through the skin and micronised progesterone is used.

There are many other ways to reduce the risk of experiencing a dangerous blood clot and these are just as important as being on the right type of HRT.

Firstly, be aware of situations that might cause a clot, and secondly, do what you can to manage these risks when they happen:

Factors that increase risk of clot	What you can do to reduce the risk
Hospital admission for any illness.	Drink plenty of water. If possible, move about and take regular walks. You will be prescribed preventative medication if at risk.
Being overweight and having an unhealthy diet; the risk of having a clot increases with body size.	Maintaining a healthy weight and having a diet that contains lots of fibre, fruit and vegetables, protein, and vitamin and minerals will help manage your risk. Avoid foods containing lots of saturated fats, salt, and sugar.
Little regular exercise or physical activity	Aim for 20 minutes of moderate exercise a day such as a walk, or do an activity such as a swimming, tennis or an exercise class for 50-75 minutes, 2-3x a week.
Long periods of inactivity, especially sitting down with legs crossed.	If you spend long periods of the day sitting down, remember to get up and move around. Take a break every hour, set a reminder to move in every hour of sitting.
Travelling for long distances in plane, car or train.	Drink plenty of water but avoid drinking alcohol as this can be dehydrating. Avoid taking sleeping pills because they will enhance immobility. Try regular simple leg exercise such as flexing and circling your ankles and when possible, move about and take short walks.
Some forms of contraception, such as the combined oral contraceptive pill, patch or ring. *(Contraception is advised for 2 yrs after your last period if under 50 yrs, or for 1 yr after last period if over 50 years).*	Speak with your doctor or nurse about using a method that does not have an increased risk of clot, such as barrier methods or the Mirena coil.

Finally...

If you are suffering with menopausal symptoms and are considering whether HRT is suitable for you, be reassured that HRT can be safe and can make a significant improvement to your quality of life.

Taking estrogen replacement through the skin does not increase your risk of clot and if you still have your womb, you can take micronised progesterone and again this does not increase the risk of clot.

Unfortunately, many healthcare professionals are not aware of the up-to-date, high-quality evidence that demonstrates transdermal estrogen has no increased risk of clot.

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