Hormone replacement therapy (HRT) and breast cancer risk

How does taking HRT affect your chances of developing breast cancer?

Quick facts

• Taking HRT to treat menopausal symptoms increases your risk of breast cancer
• This risk increases the longer you use HRT
• Breast cancer risk is greater with combined HRT than with oestrogen-only HRT
• Within five years of stopping HRT, this increase in risk disappears
Breast Cancer Now
HRT and breast cancer risk

How likely am I to get breast cancer?

Breast cancer is the most common cancer in the UK. Overall, one in eight women develops the disease in their lifetime, but not everyone’s risk is the same.

Some people will have a higher or lower risk than others. Our chances of developing breast cancer depend on a combination of our genes and bodies, lifestyle and life choices and surrounding environment.

You cannot change some things that affect your risk, such as getting older. However there are other things you can change. For example, you can reduce your risk of breast cancer by being regularly physically active.

Taking HRT is one of the factors that increases your risk of getting breast cancer.

The menopause and HRT

During the menopause your ovaries stop working, which causes the levels of the female hormones oestrogen and progesterone to fall. Your periods become less regular and eventually stop. The menopause can lead to hot flushes, night sweats, sleep disruptions, mood changes, vaginal dryness and sexual discomfort.

HRT relieves these symptoms by increasing oestrogen levels. You can take it through patches for the skin, tablets, a cream or a gel. HRT contains either just oestrogen (oestrogen-only HRT) or oestrogen and progestogen (combined HRT). Tibolone (Livial) is another type of HRT that contains a steroid that acts like oestrogen and progesterone.

The type of HRT you are recommended to use will depend on whether you have had a hysterectomy.

About one in ten women use HRT during their fifties, with use lessening in older age groups as menopausal symptoms reduce.

Will HRT increase my risk of breast cancer?

Studies have shown that the use of combined HRT or oestrogen-only HRT increases the risk of breast cancer. The longer you use HRT, the higher your risk of developing breast cancer will be. The risk linked to combined HRT is greater than the risk associated with oestrogen-only HRT.

The good news is that the increased risk of breast cancer begins to fall as soon as you stop using HRT. Within five years of stopping HRT, your risk of developing breast cancer will be the same as if you had never taken it.

At the moment, it is not clear whether tibolone also increases the risk of breast cancer. Current evidence suggests that if this type of HRT does increase the risk of breast cancer, it is likely to have a smaller effect than combined HRT.

Why does HRT increase risk?

Taking HRT increases levels of the hormones oestrogen and progestogen (the drug version of natural progesterone) in the body. It is thought both hormones may affect the growth of some breast cancers, so this overall higher hormone level might explain why HRT increases the risk of breast cancer, although we don’t yet know for sure.
How much does HRT increase my breast cancer risk?

Using HRT increases your risk of breast cancer. The size of this increase in risk depends on how long you use HRT for. The longer you use HRT, the greater the risk.

We can explain this using the below charts. These examples show how many women out of 1,000 will develop breast cancer, depending on whether or not they use HRT and for how long (5 or 10 years).

Using HRT for 5 years between the ages of 50 and 54

For example, among 1,000 women using combined HRT for five years (between the ages of 50 and 54), about 22 will probably develop breast cancer during that time. In contrast, of 1,000 women who don’t use HRT, about 14 will probably develop breast cancer between the age of 50 and 54 (chart 1). So, using combined HRT causes 8 more women out of 1,000 to develop breast cancer in their early fifties.

Oestrogen-only HRT also increases risk, with 17 in 1,000 women developing breast cancer, which is 3 more compared with women not using HRT.

Using HRT for 10 years between the ages of 50 and 59

The risk is greater with longer HRT use. For example, in 1,000 women using combined HRT for 10 years (between the ages of 50 and 59) 61 will probably develop breast cancer during that time, compared with 28 women who don’t use HRT (chart 2). That’s 33 extra cases of breast cancer compared with women not using HRT – more than twice the risk.

Oestrogen-only HRT also increases risk, with 36 in 1,000 women developing breast cancer. This is 8 more women compared with those not using HRT.

I have had breast cancer – is it safe to take HRT?

It is not clear whether any type of HRT is safe for women who have had breast cancer. Some studies have shown that tibolone, in particular, may increase the risk of breast cancer coming back. Women who have had breast cancer are not usually prescribed HRT, other than in exceptional circumstances.

Some women may be offered alternative drugs. A number of things may help to reduce menopausal symptoms such as exercising and cutting out caffeine and nicotine. There are some natural remedies that may help too, but in some cases these may interfere with cancer treatment.

Talk to your oncologist before beginning any treatments or taking any supplements to relieve menopausal symptoms to check whether they are safe and suitable for you.
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What else should I consider when making a decision about HRT?

HRT relieves many women’s menopausal symptoms and so can improve their lives. It can also reduce a woman’s risk of developing osteoporosis (weak bones) and cancer of the colon and rectum. However, as well as increasing the risk of breast cancer, HRT slightly increases the risk of ovarian cancer, womb (endometrial) cancer and stroke.

Breast Cancer Now thinks that you should decide whether to start or stop using HRT with your doctor, who can provide information and advice. Consider the impact of menopausal symptoms on your life, your medical history, the pros and cons of HRT, and your personal preferences.

It is usually not possible to swap between oestrogen-only and combined HRT, because for most women only one or the other will be suitable.

If you are taking HRT, review your therapy and general health with your GP at least once a year. Experts recommend that, to minimise the risk of breast cancer, the lowest effective dose of HRT necessary to relieve menopausal symptoms should be used for the shortest possible time.

If you are worried about HRT and breast cancer, speak to your GP. If you have inherited the faulty breast cancer gene BRCA1 or 2, we recommend you speak to your family history or genetics specialist if you wish to use HRT.

For more ways to reduce your risk see breastcancernow.org or call Freephone 0333 20 70 300

About Breast Cancer Now

We’re Breast Cancer Now, the UK’s largest breast cancer charity – and we’re dedicated to funding research into this devastating disease. We’re determined to stop women dying of breast cancer by 2050. But we’ll only reach that point by working in a new, more open and collaborative way. We’re bringing together all those affected by the disease to fund research, share knowledge and find answers. To improve the way we prevent, detect, treat and stop the disease. So we can move from a time when people still fear breast cancer to a generation where everybody lives. Join us at breastcancernow.org

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We welcome feedback. Please email comments to info@breastcancernow.org or call 0333 20 70 300.

Reviewed and updated: November 2013.
Next review due: November 2016.

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