

# Ovarian suppression and breast cancer



This booklet explains the different ways to stop the ovaries from working (ovarian suppression) and what they involve. This may be used as part of your treatment for breast cancer, or it can sometimes be used to try to preserve fertility during chemotherapy.





## **This information is by Breast Cancer Care.**

**We are the only specialist UK-wide charity that supports people affected by breast cancer. We've been supporting them, their family and friends and campaigning on their behalf since 1973.**

Today, we continue to offer reliable information and personal support, over the phone and online, from nurses and people who've been there. We also offer local support across the UK.

From the moment you notice something isn't right, through to treatment and beyond, we're here to help you feel more in control.

For breast cancer care, support and information, call us free on **0808 800 6000** or visit **[breastcancercare.org.uk](https://breastcancercare.org.uk)**



We hope this booklet answers your questions about ovarian suppression and helps you discuss the options with your treatment team. We recommend that you read this booklet together with our **Treating primary breast cancer** and **Breast cancer in younger women: coping with a diagnosis at 45 or under** booklets.

## What is ovarian suppression?

Ovarian suppression is the term used to describe treatments that stop the ovaries from making oestrogen, either permanently or temporarily.

You might hear different terms for ovarian suppression such as ovarian function suppression and ovarian ablation. We use the term ovarian suppression in this booklet.

Ovarian suppression is used:

- as part of treatment for breast cancer in premenopausal (have not yet reached the menopause) women
- to try to help preserve fertility during chemotherapy, because chemotherapy can cause damage to the ovaries

## Ovarian suppression as a treatment for breast cancer

### How does it work?

Some breast cancers are stimulated by the hormone oestrogen. This means that oestrogen in the body helps the cancer to grow. This type of breast cancer is called oestrogen receptor positive (ER+). Invasive breast cancers are tested to see if they are ER+ using tissue from a biopsy or after surgery.

Before the menopause, oestrogen is mainly produced by the ovaries. If the ovaries are removed, or if they are stopped from working, there's less oestrogen in the body to stimulate the cancer to grow. This is called ovarian suppression. Small amounts of oestrogen will still be produced by fat cells.

You will only benefit from ovarian suppression if your breast cancer is ER+.

## Who might be offered ovarian suppression?

### Primary breast cancer

Ovarian suppression can be used as part of your treatment for primary breast cancer (breast cancer that has not spread beyond the breast or the lymph nodes under the arm). Your treatment team will look at various features of the cancer such as the stage, size and grade to decide whether you would benefit from having ovarian suppression as part of your treatment. Other factors may also be relevant.

It will only be recommended if you are premenopausal and your breast cancer is ER+. It's not used in women who are already postmenopausal.

Ovarian suppression can help to reduce the risk of the breast cancer coming back (recurrence) or a new breast cancer developing (a new primary breast cancer).

Evidence suggests that women who remain premenopausal after chemotherapy may benefit most from ovarian suppression. Older premenopausal women may not get as much benefit from ovarian suppression after chemotherapy. Your specialist will talk to you about whether ovarian suppression may be of benefit in your situation.

Women who are not recommended to have chemotherapy are less likely to be offered ovarian suppression.

It may be an option for some women who choose not to have chemotherapy.

### Secondary breast cancer

Ovarian suppression may also be used to treat women with secondary breast cancer (when cancer cells from the breast have spread to other parts of the body such as the bones, lungs, liver or brain).

It will only be prescribed if you are premenopausal and your breast cancer is ER+.

# Ovarian suppression to try to preserve fertility during chemotherapy

Chemotherapy can affect the functioning of the ovaries, reducing the number or quality of eggs and affecting a woman's ability to become pregnant. The likelihood of you losing your fertility after chemotherapy depends on the type of drugs used, the dose given, your age and your current fertility. See our booklet **Fertility and breast cancer treatment** for more information.

Some studies have shown that ovarian suppression using hormone therapy drugs (see below) may protect the ovaries during chemotherapy as it temporarily 'shuts down' the ovaries. However, the effectiveness of ovarian suppression for preserving fertility is still debated and cannot replace other fertility preservation methods like egg and embryo freezing.

We need more research to establish the role of ovarian suppression during chemotherapy to preserve fertility.

Your treatment team should discuss what treatment they recommend for you and why.

## What does ovarian suppression involve?

Ovarian suppression can be achieved by:

- hormone therapy (drugs) – usually monthly injections
- surgery

Your treatment team should help you decide which is best for you. Using hormone therapy is the only way of achieving ovarian suppression that may not be permanent. This may be something to consider when making your decision, especially if you want to have children.

## Hormone therapy

Some drugs stop the ovaries from making oestrogen. They interfere with hormone signals from the brain that control how the ovaries work. One of the drugs most commonly used is goserelin (Zoladex).

### Goserelin

Goserelin comes as an implant (a very small pellet) in a pre-filled syringe. It's given as a subcutaneous (under the skin) injection into your abdomen (belly). You may be given this injection at the hospital by your breast care nurse, at your GP practice or by a community nurse.

For primary breast cancer, it's recommended that goserelin is given every 28 days (four weeks). The injection is called a 'depot injection', which means that the drug is steadily released into the bloodstream over the four weeks.

Goserelin is also available as a three-monthly injection for the treatment of other types of cancer. However, having goserelin in this way is not usually recommended for treating breast cancer as there is not enough evidence that it suppresses oestrogen levels enough. This is particularly important if you are having goserelin alongside an aromatase inhibitor (see page 8).

Goserelin may be given less frequently for secondary breast cancer. Your specialist can talk to you about this in more detail.

If you have primary breast cancer and are having goserelin as part of your breast cancer treatment, it is usually given for up to five years or sometimes for longer. If you have secondary breast cancer, you will be given goserelin for as long as it keeps the cancer under control.

If you're having goserelin to try to preserve fertility, an injection of goserelin is usually given before chemotherapy starts, then every four weeks during chemotherapy, and a last injection after the final chemotherapy treatment.

For more information on goserelin see our [Goserelin \(Zoladex\)](#) booklet.

### Will goserelin affect my periods?

Within about three weeks of the first injection, your oestrogen will be lowered to a level similar to that of a postmenopausal woman and your periods will normally stop. This effect is generally temporary and will only last for as long as you are having goserelin. When you stop having the

drug, your ovaries will usually start to produce oestrogen again. Most women will start their periods again within three months to a year after finishing treatment. However, if you are approaching the age of natural menopause when your treatment finishes, your ovaries may not start working again.

If you're concerned about going through an early menopause or would like to have children after your treatment, you can discuss with your treatment team how long to continue goserelin.

### **Do I need to use contraception while I'm having goserelin?**

It's important not to get pregnant while you're having goserelin because the drug could harm a developing baby. It is possible to become pregnant while having goserelin, even if your periods have stopped or become irregular.

Use a non-hormonal method of contraception to avoid getting pregnant, such as condoms, Femidoms or a diaphragm. It may also be possible to use a coil (IUD or intrauterine device). However, you would need to discuss this with your treatment team as not all types may be suitable for women with breast cancer.

### **Ovarian suppression combined with tamoxifen or aromatase inhibitors**

If you are having goserelin for ovarian suppression this is often combined with another hormone therapy such as tamoxifen or drugs known as aromatase inhibitors. Research has suggested this may reduce the risk of the breast cancer coming back for some premenopausal women who have had chemotherapy.

There may be a small extra benefit of having an aromatase inhibitor over tamoxifen but there might be different side effects to consider that can affect your quality of life. Your specialist will help you discuss the possible benefits and side effects.

Aromatase inhibitors are not used on their own as hormone treatment in premenopausal women because they are not an effective treatment while the ovaries are still making oestrogen, but they can be given alongside goserelin.

Your treatment team will discuss with you what they recommend and why.

## Surgery to remove the ovaries (oophorectomy)

An operation to remove the ovaries is called an oophorectomy. The fallopian tubes, which are close to the ovaries, are usually removed at the same time.

The operation is usually done as 'keyhole' surgery using a laparoscope (a flexible thin tube with a camera lens attached). Three small cuts are made, one near the belly button, one near the bikini line and one on the side of the abdomen.

It's done under general anaesthetic, usually as a day case but some people stay in overnight.

Sometimes it isn't possible for the ovaries to be removed with keyhole surgery, in this case they will be removed through a short incision made below the bikini line.

Removing the ovaries will mean an immediate and permanent menopause. Your periods will stop straight away.

## What are the possible side effects of ovarian suppression?

Everyone reacts differently to drugs and treatments and some women have more side effects than others. If ovarian suppression is given in addition to chemotherapy or other hormone therapies, it's sometimes difficult to know which side effects are being caused by which treatment.

### Menopausal symptoms

Menopausal symptoms, such as hot flushes, night sweats, vaginal dryness, mood changes and a decrease in libido (sex drive) are common.

Ovarian suppression achieved by hormone therapy or surgery is more likely to cause menopausal symptoms than a natural menopause. Menopausal symptoms, especially if sudden or intense, can affect your confidence and may have an impact on both you and your partner. As well as the symptoms mentioned above, you may experience weight gain, joint pain and stiffness, fatigue (extreme tiredness) and nausea (feeling sick).

Although these symptoms may be quite intense in the beginning, they usually improve over time and there are ways to try to manage them. To find out more about coping with menopausal symptoms, see our **Menopausal symptoms and breast cancer** booklet.

## Osteoporosis

Lack of oestrogen over a long period of time can cause thinning of the bones (osteoporosis). Some women with primary breast cancer having ovarian suppression will be offered a DEXA (dual energy X-ray absorptiometry) scan within the first few months of starting treatment. A DEXA scan measures bone density. Whether you're offered a DEXA scan will depend on which other treatments you're having.

If you're having ovarian suppression for secondary breast cancer, you can talk to your treatment team about whether a DEXA scan is appropriate for you.

If you're concerned about your risk of developing osteoporosis, talk to your treatment team. For more information see our **Osteoporosis and breast cancer treatment** booklet.

## Coping with the effects of ovarian suppression

For some women, coping with the effects of ovarian suppression and possibly an early menopause brought on by treatment can be difficult.

Your treatment team will discuss with you the possible benefits and risks of ovarian suppression. If you have persistent side effects, tell your treatment team so they can suggest how best to manage them. Research has shown that younger women are more likely to stop taking hormone treatment early if they don't get help with possible side effects so it's important to get support if you need it. Not taking hormone treatment for the recommended time may increase the risk of breast cancer coming back.

Going through the menopause prematurely can create feelings of loss, and make you feel isolated from women your own age. You don't have to cope on your own. Some women find it helpful to discuss their

feelings and concerns with their breast care nurse or specialist. If you feel you'd like to talk things through in more depth, a counsellor or psychologist may be more appropriate.

## Further support

Breast Cancer Care is here to support you. You can call our free Helpline on **0808 800 6000** or visit [breastcancercare.org.uk](https://breastcancercare.org.uk)

Sharing your feelings with someone who has had a similar experience can be helpful. Breast Cancer Care runs services specifically for younger women.

## Younger Women Together

Younger Women Together is a free two-day event for women aged 45 or younger who have been diagnosed with primary breast cancer in the past three years. Over the two days you will have the opportunity to meet other younger women in a similar situation and share your experiences, thoughts and feelings. You can expect guest speakers, workshops and wellbeing sessions, covering topics such as treatment, menopausal symptoms, breast reconstruction, fertility and diet. The sessions are led by experienced healthcare professionals or subject experts.

## Someone Like Me

You may prefer to talk to someone on a one-to-one basis via phone or email. Breast Cancer Care can put you in touch with another younger woman who has been in a similar situation and is trained to offer support through our Someone Like Me service.

## Other organisations

### **The Daisy Network**

Helpline: 0845 122 8616  
daisynetwork.org.uk

Voluntary support group for women who experience a premature menopause, including information exchange and informal telephone support by members.

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### **Fertility Friends**

fertilityfriends.co.uk

An online community discussing infertility, adoption, parenting after infertility and moving on.

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### **National Osteoporosis Society**

Helpline: 0808 800 0035  
nos.org.uk

Information on prevention and treatment of osteoporosis.

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### **Younger Breast Cancer Network (YBCN)**

This is a private Facebook group set up by younger women who've had breast cancer. It allows you to chat privately with other younger women from the UK and Ireland. The group has nearly 3,000 members. You can join if you have a Facebook profile and you can find it on Facebook by searching 'Younger Breast Cancer Network'. You will need to message the main Facebook page and one of the administration team will help you join the group.



## Four ways to get support

We hope this information was helpful, but if you have questions, want to talk to someone or read more about breast cancer, here's how you can.



Speak to our nurses or trained experts. Call our free Helpline on **0808 800 6000** (Monday to Friday 9am–4pm and Saturday 9am–1pm). The Helpline can also put you in touch with someone who knows what it's like to have breast cancer.



Chat to other women who understand what you're going through in our friendly community, for support day and night. Look around, share, ask a question or support others at [forum.breastcancercare.org.uk](https://forum.breastcancercare.org.uk)



Find trusted information you might need to understand your situation and take control of your diagnosis or order information booklets at [breastcancercare.org.uk](https://breastcancercare.org.uk)



See what support we have in your local area. We'll give you the chance to find out more about treatments and side effects as well as meet other people like you. Visit [breastcancercare.org.uk/in-your-area](https://breastcancercare.org.uk/in-your-area)

# We're here for you: help us to be there for other people too

If you found this booklet helpful, please use this form to send us a donation. Our information resources and other services are only free because of support from people such as you.

Donate today and together we can ensure that everyone affected by breast cancer has someone to turn to.

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Donate using your debit or credit card [breastcancercare.org.uk/donate](https://breastcancercare.org.uk/donate)

## Donate by post

Please accept my donation of **£10/£20/my own choice of £**

I enclose a cheque/PO/CAF voucher made payable to **Breast Cancer Care**

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In addition, we'd love to keep you updated about our work and provide you with other opportunities to get involved with Breast Cancer Care. Please tell us how you would like to hear from us (by ticking these boxes you confirm you are 18 or over)

- I'd like to hear from you by email
- I'd like to hear from you by text message or SMS
- Please do not contact me by post
- Please do not contact me by telephone

We never give your information to other organisations to use for their own purposes. To change your preferences, or find out more information on how we use your data, please view our privacy policy at [breastcancercare.org.uk](https://breastcancercare.org.uk) or contact supporter services on 0345 092 0800.

Please return this form to Breast Cancer Care, Freepost RRRKZ-ARZY-YCKG, Chester House, 1-3 Brixton Road, London SW9 6DE



# About this booklet

**Ovarian suppression and breast cancer** was written by Breast Cancer Care's clinical specialists, and reviewed by healthcare professionals and people affected by breast cancer.



For a full list of the sources we used to research it:

Phone **0345 092 0808**

Email [publications@breastcancercare.org.uk](mailto:publications@breastcancercare.org.uk)



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When you have breast cancer, everything changes. At Breast Cancer Care, we understand the emotions, challenges and decisions you face every day, and we know that everyone's experience is different.

For breast cancer care, support and information, call us free on **0808 800 6000** or visit **[breastcancercare.org.uk](https://breastcancercare.org.uk)**

### **Central Office**

Chester House  
1-3 Brixton Road  
London SW9 6DE  
Phone: 0345 092 0800  
Email: [info@breastcancercare.org.uk](mailto:info@breastcancercare.org.uk)

Registered charity in England and Wales 1017658  
Registered charity in Scotland SC038104  
Registered company in England 2447182