This booklet explains what letrozole is, how it works, when it may be prescribed, the benefits of taking it and the side effects it may cause.

**WHAT IS LETROZOLE?**

Letrozole is a hormone therapy drug used to treat breast cancer in women who have gone through a natural menopause (when periods stop). It can also be used in premenopausal women having ovarian suppression (treatment to stop the ovaries working).

You may hear it called Femara, which is its best-known brand name. There are a number of other brands of letrozole, all of which contain the same dose of the drug.

The use of letrozole in men with breast cancer has not been studied and another drug called tamoxifen is more commonly used.

**HOW DOES LETROZOLE WORK?**

Letrozole works by reducing the amount of oestrogen made in the body.

Some breast cancers use oestrogen in the body to help them to grow. These are known as oestrogen receptor positive or ER+ breast cancers.

Letrozole will only be prescribed if your breast cancer is ER+.

Before the menopause, oestrogen is mainly produced in the ovaries. After the menopause, the ovaries no longer produce oestrogen, but some oestrogen is still made in body fat. This process involves an enzyme (a type of protein) called aromatase.
Letrozole belongs to a group of drugs called aromatase inhibitors. Aromatase inhibitors stop the aromatase enzyme from working. This means there’s less oestrogen in the body to help breast cancer cells to grow.

Invasive breast cancers are tested to see if they are ER+ using tissue from a biopsy or after surgery.

Tests may also be done to see if your breast cancer is progesterone receptor positive (PR+). Progesterone is another hormone.

The benefits of hormone therapy are less clear for people whose breast cancer is only progesterone receptor positive (PR+ and ER-). Very few breast cancers fall into this category. However, if this is the case your specialist will discuss with you whether hormone therapy is appropriate.

See our Treating primary breast cancer booklet for more information.

Letrozole is one of three aromatase inhibitors. The other two are anastrozole and exemestane. All three drugs have similar effects and no one drug is better than another. Your specialist will explain why you’re taking letrozole.
WHEN IS LETROZOLE PRESCRIBED?

Letrozole is suitable for women who have been through the menopause and whose breast cancer is oestrogen receptor positive.

Sometimes letrozole is given alongside ovarian suppression to women who haven’t yet been through the menopause. This is done by having surgery to remove the ovaries or taking drug treatments such as goserelin (Zoladex), leuprorelin (Prostap) or triptorelin (Decapeptyl).

You can read more information on goserelin (Zoladex) and leuprorelin (Prostap) on our website breastcancernow.org

Primary breast cancer

Letrozole may be prescribed if you have primary breast cancer. This is breast cancer that has not spread beyond the breast or the lymph nodes under the arm.

It’s usually given after surgery to reduce the risk of breast cancer returning in the same breast or spreading somewhere else in the body. This is known as adjuvant (additional) therapy.

If you’re going to take letrozole as part of your treatment for primary breast cancer, your specialist will tell you when it’s best for you to do this.

Occasionally, letrozole may be used as the first treatment for breast cancer. This may be when surgery is not appropriate or needs to be delayed. It’s sometimes given before surgery (known as neo-adjuvant or primary therapy) to shrink a larger breast cancer.

For people diagnosed with an early type of breast cancer called ductal carcinoma in situ (DCIS) the benefits of letrozole are less clear. Your specialist will discuss whether they feel it would benefit you.
Breast cancer that has come back or spread

Letrozole can also be used to treat people who have:

- **Local recurrence** – breast cancer that has come back in the chest/breast area or in the skin near the original site or scar
- **Locally advanced breast cancer** – breast cancer that has spread to the tissues and lymph nodes (glands) around the chest, neck and under the breastbone. Sometimes breast cancer is locally advanced when it is first diagnosed. This may also happen when breast cancer comes back after treatment and may be referred to as regional recurrence
- **Secondary (metastatic) breast cancer** – breast cancer that has spread to other parts of the body

Letrozole can be given alongside a targeted therapy drug. You can find out more about targeted therapies on our website breastcancernow.org

**HOW IS LETROZOLE TAKEN?**

Letrozole is taken as a tablet once a day, with or without food. It’s best to take it at the same time every day.

If you miss a dose, you don’t need to take an extra dose the next day. The level of drug in your body will remain high enough from the day before.

Some brands of letrozole contain small amounts of lactose. If you know you are lactose intolerant discuss this with your treatment team or pharmacist.
HOW LONG WILL I HAVE TO TAKE LETROZOLE?

The recommended length of time that letrozole is taken for will depend on your individual situation.

People being treated for primary breast cancer will usually take letrozole for five to ten years.

Some people start taking letrozole after a number of years of taking another hormone therapy drug called tamoxifen.

If you’re taking letrozole to treat breast cancer that has come back or spread to another part of the body, you’ll usually take it for as long as it’s effective and any side effects can be managed.

SIDE EFFECTS OF LETROZOLE

Like any drug, letrozole can cause side effects. Everyone reacts differently to drugs and some people have more side effects than others. Having few or no side effects doesn’t mean the drug isn’t effective.

For many people, side effects improve within the first few months of starting the treatment. However, for some people they may cause distress and disrupt everyday life.

This booklet does not list all the possible side effects. If you’re worried about any side effects, regardless of whether they are listed here, talk to your GP or treatment team. They may be able to offer ways of improving your symptoms.

Your specialist may suggest changing to a different aromatase inhibitor such as anastrozole or exemestane, or another hormone treatment, as some people get on better with a different drug.

Letrozole is made by a number of different manufacturers. Some of the tablets may have different additional ingredients (for example preservatives).
This means that the colour, shape, size and sometimes taste of the tablets can differ between brands. However, this does not change the effectiveness of the treatment.

Some people say they notice a change in the side effects they experience if they take letrozole made by a different manufacturer. This suggests that some people find letrozole produced by one manufacturer seems to suit them better than another.

You may wish to discuss this with your treatment team or GP, or ask the pharmacist who dispenses your prescriptions if they can supply you with letrozole from the manufacturer you feel suits you the best.

**Common side effects**

**Aching or pain in the joints and muscles**

Aching or pain in the joints and muscles is often mild and temporary, although for some people it’s more severe and longer lasting.

It can usually be relieved with mild pain relief like paracetamol or an anti-inflammatory drug such as ibuprofen. Before using anti-inflammatory pain relief, ask your doctor about the correct dose, how long you should use it for and any possible side effects, especially if you have a stomach ulcer or asthma.

Exercise that gently stretches your joints or strengthens your muscles to better support your joints, such as yoga or pilates, may help improve your symptoms. Brisk walking can also be beneficial. A physiotherapist may also be able to suggest exercises to help. If you have secondary breast cancer, check with your specialist before starting any new type of exercise.

Some people benefit from switching to a different hormone therapy. For example, it may be possible to switch to another aromatase inhibitor to see if your pain improves, or some people might be offered the drug tamoxifen as an alternative.

If the pain is severe, it may be helpful to see a pain management specialist at a pain clinic.
Menopausal symptoms

Hot flushes, night sweats and increased sweating
Hot flushes, night sweats and increased sweating are common side effects of letrozole. A hot flush can range from a mild sensation of warming which just affects the face, to waves of heat throughout the body. Some women also experience a drenching sweat affecting the whole body.

Many women get flushes at night, leading to disturbed sleep which can mean being forgetful, feeling irritable and having difficulty concentrating.

To find out more about coping with these symptoms, see our booklet Menopausal symptoms and breast cancer.

Low mood and depression
Many people feel low or depressed. It can be difficult to know whether this is because of the medication or other reasons such as menopausal symptoms or dealing with a diagnosis of cancer.

Talk to your GP or treatment team about how to manage a change in mood. Some people find counselling or mindfulness helpful. Others find exercise improves their mood. Your GP or treatment team can refer you for counselling or may suggest you take an antidepressant drug.

Your breast care nurse (if you have one) may also be able to help or tell you about support services in your area.

Extreme tiredness
Cancer-related fatigue is extreme tiredness and exhaustion that doesn’t go away with rest or sleep. It can affect you physically and emotionally. It’s a very common side effect of letrozole and may last for weeks or months after your treatment has finished. Occasionally fatigue is a long-term effect.
Fatigue can also be caused by conditions such as anaemia (too few red blood cells). It’s important to let your GP or treatment team know if you’re affected by fatigue to rule out other conditions. Fatigue affects people in different ways and there are a number of ways of coping with and managing it.

You can find lots more information on our website breastcancernow.org/fatigue or by calling our Helpline on 0808 800 6000. Macmillan Cancer Support produces a booklet called Coping with fatigue.

**Difficulty sleeping**

If you have difficulty sleeping (insomnia), some simple things like limiting caffeine in the afternoon and evening, keeping your bedroom dark and quiet, and going to bed and getting up at a set time each day may help.

Relaxation exercises can also be helpful. There are CDs, podcasts and phone apps that can guide you through these techniques.

If you continue to have difficulty sleeping, your GP may prescribe something to help you sleep.

**Osteoporosis (thinning of the bone)**

Letrozole reduces the amount of oestrogen in the body. A lack of oestrogen over time can cause osteoporosis.

Your specialist will sometimes check the strength and thickness (density) of your bones with a scan before or shortly after you start taking letrozole. If you have been given bisphosphonates (see below) as part of your treatment you will not need a scan.

Your bone density may be checked every two to three years while you’re taking letrozole, depending on the results from the initial scan or whether your specialist has any concerns.
To help keep your bones healthy you can increase your intake of calcium and vitamin D. Most people do this by taking a supplement. You may also want to eat more foods that are rich in calcium, such as milk, cheese, yoghurt and cereals. For vitamin D, you can increase the amount of oily fish, mushrooms and eggs you eat.

Stopping smoking and doing regular weight-bearing exercise can also help keep your bones strong.

If your bones are already beginning to show signs of thinning or if you already have osteoporosis, you may be given another drug to increase bone density and strength. This will usually be from a group of drugs called bisphosphonates. Some people will have been given bisphosphonates as part of their breast cancer treatment. If you’re concerned about this you may find it helpful to speak to your specialist.

For more information see our osteoporosis and bone health information at breastcancernow.org

**High blood pressure (hypertension) and high cholesterol**

Letrozole can cause high blood pressure (hypertension) in some people. Your GP will be able to monitor and treat this if necessary.

It may also cause the level of cholesterol in the blood to rise, although this doesn’t usually need treatment. If you have a history of high cholesterol you may want to discuss this with your specialist or GP.

**Headaches**

Letrozole can sometimes cause headaches. Mild pain relief such as paracetamol may help with headaches.

**Dizziness**

Letrozole may cause dizziness. If you feel dizzy, avoid driving. If dizziness persists see your GP.
Nausea and vomiting
Letrozole may make you feel sick (nausea) or be sick (vomiting). These symptoms usually improve or become easier to manage over time. Taking your letrozole with or after food can help reduce nausea.

Diarrhoea and constipation
If you have diarrhoea, it’s important to drink enough fluids. Your GP or treatment team can prescribe medication to help with diarrhoea.

It’s also important to keep active and eat a high-fibre diet to avoid constipation.

Changes to your appetite
If you lose your appetite, it may help to take your tablet with food. You may find eating small frequent meals or snacks helps keep up your food intake.

If your appetite increases it may affect your weight. If you struggle to maintain a healthy weight, ask your GP or specialist about being referred to a dietitian.

Changes to hair or facial hair
You may have some hair loss or thinning while taking letrozole. A small number of women notice an increase in downy facial hair.

You may be interested in our booklet Breast cancer and hair loss.

Skin changes
You may develop a skin rash or dry skin while taking letrozole. This usually goes away when your treatment finishes. Your pharmacist, GP or treatment team can tell you what products you can use on your skin to help.
**Vaginal bleeding**
Vaginal bleeding can happen in the first few weeks after starting letrozole. It most commonly occurs when changing from one hormone therapy to another. This may also be due to vaginal dryness (see page 13).

If the bleeding continues for more than a few days, tell your specialist.

**Fast heart rate (palpitations) and chest pain**
You may feel like your heart is racing (heart palpitations) when taking letrozole, which is more common in older people. Some people also experience chest pain. Speak to your GP or treatment team if you have any of these symptoms.

**Swelling of arms, hands, feet and ankles (oedema)**
You can get swollen arms, hands, feet and ankles. If you notice this or any other swelling, let your GP know.
Other side effects

Vaginal dryness

Vaginal dryness is often caused by reduced levels of oestrogen or blocking its action can cause vaginal changes, such as dryness or irritation.

There are a number of treatments that can help with vaginal dryness, including vaginal moisturisers and lubricants. You may be able to get these on prescription from your GP or you can buy them from a chemist or online.

Low sex drive (libido)

Many women find their desire for sexual contact decreases. Loss of desire can continue for many months but as time moves on this may start to improve.

When you feel ready to increase or resume sexual activity, you may want to make some time specifically for you and your partner, free from distractions.

It may help to consider what you and your partner now expect from intimacy and sex and explore new ways of sharing sexual pleasure.

To find out more about coping with these symptoms, see our booklets Menopausal symptoms and breast cancer and Your body, intimacy and sex.

Carpal tunnel syndrome

Carpal tunnel syndrome (CTS) is pressure on a nerve in your wrist. This causes pain, tingling and numbness in your arm, hand or fingers. Using a wrist splint can help. Sometimes it can go away on its own, but it can take months to get better. Speak to your GP or specialist if you have any of these symptoms.
Blood clots

People with breast cancer have a higher risk of blood clots such as a deep vein thrombosis (DVT). Their risk is higher because of the cancer itself and some treatments for breast cancer. If the cancer has spread to other parts of the body (secondary breast cancer), this also increases the risk.

People with a DVT are at risk of developing a pulmonary embolism (PE). This is when part of the blood clot breaks away and travels to the lung.

Blood clots can be harmful but are treatable so it’s important to report symptoms as soon as possible.

If you experience any of the following symptoms contact your local A&E department, GP or treatment team straight away:

- Pain, redness/discolouration, heat and swelling of the arm or leg
- Swelling, redness or tenderness where a central line is inserted to give chemotherapy, for example in the arm, chest area or up into the neck
- Shortness of breath
- Pain or tightness in the chest
- Unexplained cough or coughing up blood
STOPPING LETROZOLE

Your treatment team will tell you when to stop taking letrozole. You won’t need to stop taking it gradually.

Some people worry about stopping their treatment after five to ten years, but there’s evidence that letrozole continues to reduce the risk of breast cancer coming back for many years after you stop taking it.

However, not taking the drug for the recommended time may increase the risk of your breast cancer coming back. If you’re thinking about stopping taking letrozole for any reason, talk to your specialist first. Sometimes it may be possible to change to another hormone drug.

Hormone therapy is a very common treatment for secondary breast cancer and many people take it for a long time. If letrozole stops working, your specialist may prescribe another hormone drug.

Side effects caused by letrozole will be different for each person. You may find your side effects reduce after stopping letrozole, for others they may continue after treatment finishes. You may also experience side effects caused by other treatments or individual circumstance, such as the menopause. If you’re worried about any long term side effects after stopping letrozole, speak to your treatment team or GP.
OTHER IMPORTANT INFORMATION

Taking letrozole with other drugs
If you’re taking any other prescribed or over-the-counter medicines, check with your treatment team or pharmacist if you can take these with letrozole.

Do not take other drugs containing oestrogen, such as hormone replacement therapy (HRT), while you’re taking letrozole as this may interfere with its effectiveness.

Herbal medicines and supplements
Many people consider taking herbal products or supplements while having treatment for breast cancer. However, the exact effect and safety of taking these after a diagnosis of breast cancer is not fully understood. Ask your treatment team or pharmacist before taking herbal products or supplements.

Find out more about supplements in our Diet and breast cancer booklet.

Sex, contraception and pregnancy
Taking letrozole while pregnant may be harmful to a developing baby. It’s possible to become pregnant while taking letrozole even if your periods have stopped with ovarian suppression.

If you’re sexually active with a chance of becoming pregnant, your specialist is likely to advise you to use a non-hormonal method of contraception while taking letrozole. Non-hormonal methods include 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 are suitable for women with breast cancer.

If you think you may be pregnant, stop letrozole and tell your specialist as soon as possible.
Fertility
Getting pregnant while taking letrozole for breast cancer treatment is not recommended. It’s important to discuss any fertility concerns with your treatment team before you begin your treatment.

If you’re planning to get pregnant after you have finished taking letrozole or want to take a break from it, talk to your treatment team about the most appropriate length of time for you.

For more information see our booklet *Fertility, pregnancy and breast cancer*.

Breastfeeding
Breastfeeding is not recommended while having letrozole, or within a week of the last dose. This is because there’s a risk the drugs could be passed on through breast milk.

FINDING SUPPORT
Being diagnosed with breast cancer can make you feel lonely and isolated. Find somebody who understands what you’re going through with Someone Like Me. Call our Someone Like Me service on 0114 263 6490.

If you have any worries or questions about taking or stopping letrozole, you can call us free on 0808 800 6000 to talk through your concerns. You can also email nurse@breastcancernow.org

You can find out more about our support services online at breastcancernow.org/oursupport

HELP US TO HELP OTHERS
Breast Cancer Now is a charity that relies on voluntary donations and gifts in wills. If you have found this information helpful, please visit breastcancernow.org/give to support our vital care and research work.
ABOUT THIS BOOKLET

Letrozole was written by Breast Cancer Now’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: Email health-info@breastcancernow.org

You can order or download more copies from breastcancernow.org/publications

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BCC64, Edition 8, next planned review 2024
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For breast cancer care, support and information, call us free on 0808 800 6000 or visit breastcancernow.org

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