



University
Hospitals Sussex
NHS Foundation Trust

Anti-hormone therapies for hormone positive breast cancer

Patient information

What is this information about?

This information tells you about the different kinds of anti-hormone therapies that you can take. These depend on whether you have reached the menopause (either naturally or because of your treatment) or not. You will find out here about:

- What these medicines are called and how they work.
- What your options are if you have not reached the menopause but want to take this medicine.
- Any side-effects of these medicines and how you can cope with them.

Why have I been given this information?

You have been given this information because your cancer can be treated with medicines called anti-hormone therapies that block or decrease the hormones that your body makes. This information will help you decide if you want to take this medicine.

Feeling confident about your body and being able to make informed decisions about your health is an important part of being well. We want you to feel in control of your health and your ability to manage it. The symptoms diary included here will help you with this. We understand that this is a difficult time when you have finished your treatment. We are here to support you with any symptoms or side-effects that you have. Please remember that you are not alone.

What is anti-hormone therapy?

Anti-hormone therapy is also called endocrine therapy. It is a treatment for breast cancers that are using your body's hormones to grow.

It works by blocking hormones from attaching to cancer cells. Or, by decreasing the body's production of hormones.

Anti-hormone therapies can also be used to treat ductal carcinoma in situ (DCIS). Anti-hormone therapies also reduce the risk of breast cancer in women with a strong family history of breast cancer, or other risk factors for breast cancer.

Why is anti-hormone therapy recommended?

Anti-hormone therapy is recommended because:

- It lowers the chance of cancer coming back.
- It lowers the risk of cancer developing in the other breast.
- It can slow or stop the growth of cancer that has spread.
- It can reduce the size of a tumour before surgery.

How does anti-hormone therapy work?

Anti-hormone therapy works by either:

1. Blocking the oestrogen attaching to the hormone receptors in the breast cells or
2. Reducing the production of oestrogen hormone (these medicines are called Aromatase Inhibitors).

Oestrogens are a group of hormones that are important for women's all-round health. This includes puberty, menstruation (periods), pregnancy and menopause (when periods stop).

How do medicines that block hormones from attaching to cancer cells work?

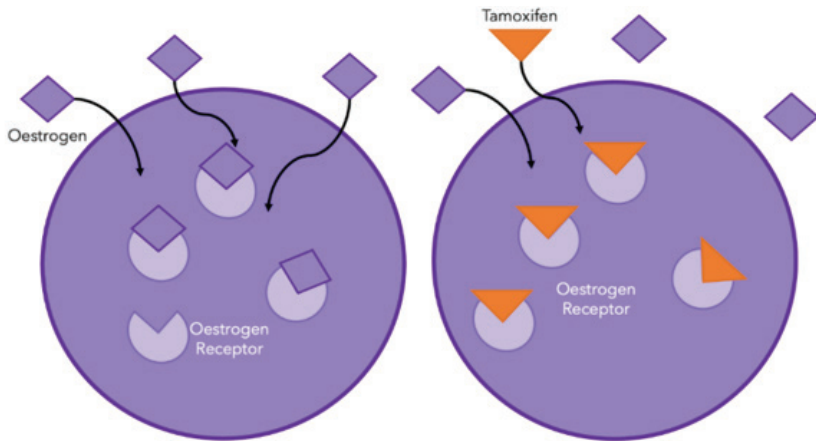


Figure 1: Tamoxifen binds to the oestrogen receptors, preventing oestrogen from binding to them. This blocks oestrogen from being able to promote cell growth.

Image of a medicine blocking hormones from attaching to cancer cells. Reproduced with permission from **Owise**.

This medicine works by stopping the hormones from attaching to the receptors on the cancer cells.

When the hormones cannot get to the cancer cells, the tumour growth may slow, and the cells may die. If you think of the hormones as a food source for the cancer cells, when the food source is cut off, the cancer cells starve and die.

What are the brand names of the medicines that block hormones from attaching to cancer cells?

These medicines are called SERMs (Selective estrogen receptor modulators).

- **Tamoxifen**. It is usually taken daily in a pill form but is also available as a liquid. It is often used to reduce the risk of cancer coming back in pre-menopausal women who have been treated for early-stage breast cancer. In this situation, it is typically taken for five to seven years.

Tamoxifen may also be used to treat advanced cancer or if you are post-menopausal (you have reached menopause).

- **Fulvestrant (Faslodex).** Fulvestrant is given as an injection every two weeks for the first month, then once a month after this. It is given to post-menopausal women to treat advanced breast cancer.

How do medicines that reduce the amount of oestrogen production (aromatase inhibitors) work?

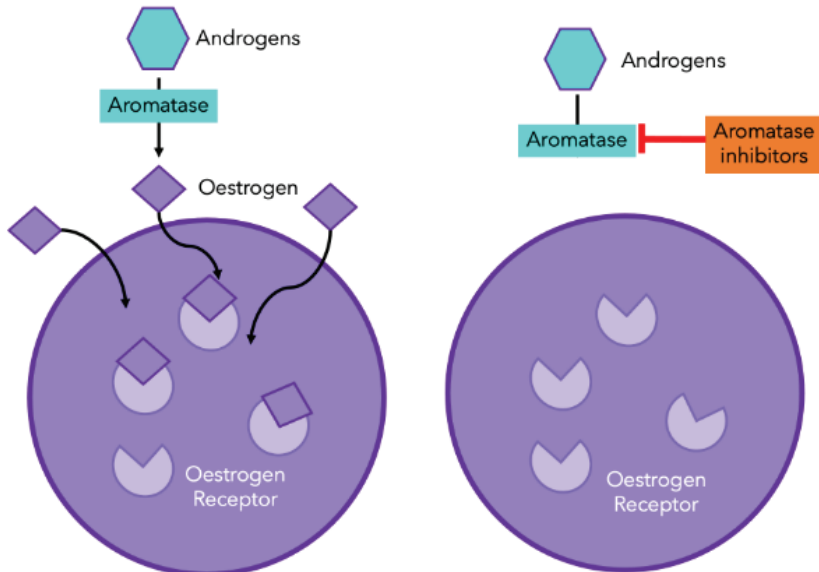


Figure 3: Aromatase inhibitors prevent the enzyme aromatase from working. This stops oestrogen production in the body and therefore there is no oestrogen available to promote cancer cell growth.

Image of aromatase inhibitors preventing the enzyme aromatase from working. Image reproduced with permission from Owise.

Aromatase Inhibitors are also called AI's. These are another type of anti-hormone treatment. They block the enzyme aromatase from converting the androgen into oestrogen, and this reduces the amount of hormone production in your body. This means that breast cancer cells will not get the hormones that they need to grow.

If you are post-menopausal, either naturally or because of treatment, you may be prescribed aromatase inhibitors.

What are the brand names of aromatase inhibitors?

- **Letrozole (also known as Femara).** Letrozole is a non-steroidal AI. It is used to reduce the risk of cancer coming back in women who have been treated for early-stage breast cancer. It can be used alone or given after completing tamoxifen treatment. Letrozole is also used to treat advanced breast cancer.
- **Exemestane (also known as Aromasin).** Exemestane is a steroidal AI. It is used to reduce the risk of cancer coming back in women who have been treated for early-stage breast cancer. It can also be used to treat advanced breast cancer in women if tamoxifen is no longer working.
- **Anastrozole (also known as Arimidex).** Anastrozole is a non-steroidal AI. It is used to reduce the risk of cancer coming back in women who have been treated for early-stage breast cancer. It can also be used to treat advanced breast cancer.

How long will I have to take aromatase inhibitors?

How long you take aromatase inhibitors depends on your specific situation.

Research shows us that usually people take these medicines for up to seven years, but every person is different. You and your doctor will decide together how long you should take them.

If I haven't reached menopause yet (I am pre-menopausal), can I get treatment to stop my ovaries from making hormones?

Yes. If you haven't reached menopause, you may be advised to have treatment that will stop your ovaries producing hormones.

These options include:

- Medicine, such as Goserelin (Zoladex).
- Surgery to remove the ovaries (oophorectomy).

When you stop taking Zoladex, your ovaries can make hormones again.

What are the side-effects of anti-hormone therapy?

All the hormonal therapies described here reduce the levels of oestrogen in your body.

However, they all have some side effects. This means that they can all cause symptoms of menopause like hot flushes, mood swings, vaginal symptoms and a change in sex drive.

The range and severity of menopausal symptoms vary from one woman to another. Some women may experience very few menopausal symptoms.

Symptoms will usually become less noticeable with time, as your body adjusts to lower oestrogen levels.

In general, hormone replacement therapy (HRT) is not recommended in women who have had hormone positive breast cancer but there are other things that can help.

What can help me manage the side effects of anti-hormone therapies?

Many people find the side effects of hormone therapy difficult to cope with.

If the side effects are stopping you taking your hormone therapy, talk with your cancer specialist before making any decisions to stop it. They may suggest a short break from treatment to see if the side effects improve.

If you have on-going side effects from hormone therapy, talk to your cancer specialist so they can discuss with you the best way to manage them.

There are ways to improve your symptoms. Occasionally, your cancer specialist may suggest you try a different therapy.

You may be able to consider taking low dose vaginal oestrogen if non-hormonal therapies have not improved your symptoms. If you are worried about taking this, then you may be able to switch from an AI to Tamoxifen.

The most common side effects and ways to manage them.

	Symptoms	Possible solutions
1	Hot flushes and night sweats	To reduce caffeine, alcohol, smoking. Yoga and medical acupuncture. Drugs that may help: Gabapentin, Venlafaxine, Escitalopram, Citalopram, Oxybutynin, Veoza.
2	Mood changes and reduced sex drive	Cognitive behavioural therapy, GP consultation, psychological therapies to help with managing relationships and expectation, yoga and medical acupuncture.

	Symptoms	Possible solutions
3	Vaginal dryness or irritation	Vaginal moisturisers, such as Replens MD, Senselle or Hyalofemme, YES creams, provide long-term relief
4	Fatigue	Regular physical activity (see image at the end of this information), counselling, cognitive behavioural therapy, massage and relaxation, Reiki.
5	Headaches and nausea	Medication, cognitive behavioural therapy, non-medicinal remedies (for example, yoga and acupuncture).
6	Joint and muscle pain	Medication: Duloxetine, physical activity, swimming, acupuncture, maintenance of body weight.
7	Blood clots in veins	Physical activity. Look out for signs and symptoms of DVT (deep vein thrombosis). If you experience this, contact the oncology team and your GP as soon as possible. www.uhsussex.nhs.uk/resources/venous-thrombosis-blood-clots/
8	Endometrial cancer or uterine cancer	Regular monitoring for any abnormal signs or symptoms, such as spotting or bleeding.
9	Osteoporosis and effects on bone density	Calcium/Vitamin D supplements and nutritional intake, healthy eating, healthy weight, physical activity, dexa scans for monitoring.
10	Sleep disturbances	Physical activity, healthy eating, managing stress, maintaining healthy relationships and being socially active. Intellectual stimulation, cognitive behavioural therapy, yoga and acupuncture.

Why do I need to keep a symptom diary?

We have included a symptom diary for you to keep track of your symptoms. This will help you to be in control of managing your symptoms.

Keep this diary for the first 12 to 20 weeks of your treatment. It will help you and your specialist team to decide what medicines will give you the best quality of life with the anti-hormone therapy.

Date	Symptom	Frequency	Managed with	Outcome
1				
2				
3				
4				
5				
6				
7				

Notes:

Notes:

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Who can I speak to for more information and advice?

If you would like more information about your anti-hormone treatment, contact your surgeon, cancer specialist (oncologist), breast care nurse or other health professional.

Useful contacts and websites

Brighton Breast Care Team

01273 696955 Ext. 64111

pcbcbreastcarenurses@nhs.net

Worthing Breast Care Team

uhsussex.breastcarenurses@nhs.net

01903 285068

Chichester Breast Care Team

uhsussex.srhbreastcarenurses@nhs.net

01243 831528

Macmillan Horizon Centre

horizoncentre@macmillan.org.uk

01273 468770

Breast Cancer Now

hello@breastcancernow.org

Macmillan Cancer support

Free Helpline 0808 808 0000

www.macmillan.org.uk/

Triage Sheet

Triage Sheet

Name:		Age:	Age at menarche:
Hospital ID No:			Age at menopause:
Diagnosis:			Fertility:
Hormonal status ER <input type="checkbox"/> PR <input type="checkbox"/> HER2 <input type="checkbox"/>			Osteoarthritis <input type="checkbox"/> MSK <input type="checkbox"/> Renal <input type="checkbox"/>
			Diabetes <input type="checkbox"/> Cardiac <input type="checkbox"/>
			Osteoporosis <input type="checkbox"/>
Other PMH:			Breast cancer history:
Weight now: Any recent weight gain:			Current medications:
Physical activity	Duration	1.	
Walking:		2.	
Gardening:		3.	
Jogging:		4.	
Others:		5.	

Physical activity guidelines for adults and older adults

Physical activity for adults and older adults

Benefits health	Type II Diabetes -40%
Improves sleep	Cardiovascular disease -35%
Maintains healthy weight	Falls, depression etc. -30%
Manages stress	Joint and back pain -25%
Improves quality of life	Cancers (colon and breast) -20%

Some is good, more is better

Make a start today: it's never too late

Every minute counts

Be active

at least **150** minutes moderate intensity per week
Increased breathing able to talk

OR

at least **75** minutes vigorous intensity per week
breathing fast difficulty talking

or a combination of both

Build strength
to keep muscles, bones and joints strong
on at least **2** days a week

Minimise sedentary time
Break up periods of inactivity

Improve balance
For older adults, to reduce the chance of frailty and falls
2 days a week

Physical activity guidelines for adults and older adults.
From Gov.UK

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