This factsheet explains what tamoxifen is, how it works, when it might be prescribed for you, what the benefits are and what side-effects can occur. For more information, call the National Cancer Helpline on 1800 200 700 or visit www.cancer.ie.

**What is tamoxifen?**
Tamoxifen is a drug that is commonly used as part of the treatment for some breast cancers. It belongs to a group of drugs called hormone therapies and is also described as an anti-oestrogen drug.

**How does it work?**
Hormones exist naturally in your body. They help to control the growth and activity of normal cells. Hormones, particularly oestrogen, can encourage some breast cancer cells to grow. This type of breast cancer is known as oestrogen-receptor positive. You may also see this written as ER positive. Tamoxifen works by blocking the effects of oestrogen on breast cancer cells and stopping them from growing. This is why it is called an anti-oestrogen drug.

**How do I know if tamoxifen will work for me?**
Tamoxifen will only be prescribed if your breast cancer grows with the help of oestrogen. To find out if tamoxifen is appropriate for you, your cancer specialist will order a test on a sample of your breast cancer cells. This sample is taken during a biopsy or during surgery to remove the breast cancer. Unlike some types of hormone therapy, you can have treatment with tamoxifen both before and after the menopause.

**How much tamoxifen do I take and when do I take it?**
Tamoxifen is available as a tablet and a liquid. The recommended dose is 20mg, once a day. It is best to take it at the same time every day, but the time of day does not matter. Taking it with food can help you to avoid feeling sick.
Does it matter if I miss a dose?
If you miss a dose you do not need to take an extra dose the next day. The level of drug in your body will remain high from the previous day. Missing a single dose will not do any harm but in the long term it is important to take it daily.

How long will I have to take tamoxifen?
Tamoxifen can be taken for varying lengths of time. For women who have not yet been through the menopause (premenopausal) it is usually taken for up to 5 years, although on-going research suggests that some women may benefit from being on tamoxifen for up to 10 years. Your doctor will balance the benefits and the risks in your individual case when advising you on how long you need to take it for.

Some women who have gone through the menopause (postmenopausal) may switch to another anti-oestrogen medication after 2–3 years of tamoxifen, or after taking tamoxifen for 5 years. This can give you extra benefits.

What are the benefits of taking tamoxifen?
Tamoxifen has various health benefits:

• Taking tamoxifen greatly reduces the risk of your cancer coming back and improves overall survival in all age groups.

• Tamoxifen has a positive effect on bones, so it may help to prevent or slow down osteoporosis in women who have been through the menopause.

• There is some evidence that tamoxifen reduces cholesterol and may help to reduce your risk of heart disease.

What are the possible side-effects of tamoxifen?
Like any drug, tamoxifen can have side-effects. It is important to remember that everyone reacts differently to drugs. Some people have more side-effects than others and others have no side-effects at all. Many women find that side-effects are worse at the start of treatment but they settle down after a few weeks or months. Some side-effects are mentioned below, but if you experience any new symptoms, discuss them with your family doctor (GP), cancer specialist or breast care nurse. In general, the benefits of taking tamoxifen far outweigh the risks if your cancer is oestrogen-receptor positive.

Common side-effects
Taking tamoxifen can cause side-effects that most women would associate with the menopause. Common side-effects include:

• Hot flushes
• Night sweats
• Vaginal dryness
• Lower sex drive
• Fatigue (tiredness)
• Mood changes
• Poor concentration

These symptoms are more common in women who take tamoxifen before the menopause than those who start taking it after the menopause. Women who are still having regular periods may find that they become irregular, lighter or stop completely.

Other side-effects
Other possible side-effects include headaches, vaginal irritation or discharge, joint pain, leg cramps at night, and thinning of your hair.

You might feel some indigestion or mild nausea, although these symptoms usually improve with time. Many women find that they put on weight during their treatment, but no clear evidence links this weight gain to tamoxifen. Tamoxifen can also affect the lining of your womb (endometrium), which might become thickened.
In a few cases it can cause polyps or ovarian cysts or, very rarely, cancer of the womb. If you have any unexpected vaginal bleeding or pain, tell your GP or cancer specialist.

Some research has shown that taking tamoxifen may slightly increase the risk of blood clotting. If you have a history of deep vein thrombosis (DVT), tell your doctor. Tamoxifen may also affect your vision and the risk is greater if you already have problems such as cataracts.

**Can I take other drugs while I am taking tamoxifen?**

Tamoxifen can increase the effect of anticoagulants that thin your blood such as warfarin. It is best not to take these drugs while you are on tamoxifen. Other drugs that commonly interfere with tamoxifen are SSRI antidepressants such as Prozac. These drugs may cause tamoxifen to be less effective. Always check with your specialist if you are concerned about taking any other medicines when taking tamoxifen.

**I am still having regular periods. Will tamoxifen work for me?**

Unlike some types of hormone therapy, tamoxifen works well both before and after the menopause. However, women who are still having regular periods may find that they become irregular, lighter or stop completely.

**Fertility and pregnancy**

If you have not gone through the menopause, your periods may become irregular or stop. They might return once you stop taking tamoxifen. However, if you are close to your natural menopause there is a chance your periods might not come back at all.

Even if your periods stop while you are taking tamoxifen, you could still become pregnant. You should not become pregnant while taking tamoxifen as the risks to the foetus are unknown. Therefore, it is important to use reliable, non-hormonal contraception such as condoms, femidoms, a diaphragm or coil (IUD).

If you wish to become pregnant after tamoxifen treatment, you should discuss this with your doctor. It is best to wait a couple of months after stopping the drug.

**Can tamoxifen prevent breast cancer?**

International research has been carried out to see if tamoxifen can prevent breast cancer in women who have a high risk of getting the disease. Early results show that tamoxifen does help to prevent breast cancer in high-risk women.

**What happens after I stop taking tamoxifen?**

You may feel insecure when your doctor tells you that you should stop taking tamoxifen. This is natural and it might help to discuss your concerns with your GP, cancer specialist or breast care nurse, or call the National Cancer Helpline on 1800 200 700.

**Further support**

If you have any concerns about taking tamoxifen, talk to your cancer specialist or breast care nurse.

You might also find it easier to share your feelings with someone who has had a similar experience to you. For example, Reach to Recovery is a programme set up to help and support women who have recently had a breast cancer diagnosis. The programme involves personal contact between you and a Reach to Recovery volunteer. This is a woman who has had treatment for breast cancer.

Carefully selected and fully trained volunteers are available to provide advice and reassurance at a time when you need it most. For more information on individual support or support groups in your area, call the National Cancer Helpline on 1800 200 700 or visit www.cancer.ie.

**For more information on menopausal symptoms or a copy of our factsheet Managing Menopausal Symptoms, call the National Cancer Helpline on 1800 200 700 or visit www.cancer.ie.**
Useful organisations and websites

Reach to Recovery
Provides practical and emotional support to women with breast cancer. For information contact the National Cancer Helpline.
National Cancer Helpline: 1800 200 700
Email: helpline@irishcancer.ie
Website: www.cancer.ie

Breast Cancer Care UK
Website: www.breastcancercare.org.uk

Irish Osteoporosis Society
Website: www.osteoporosis.ie

For more information on Tamoxifen and breast cancer or for confidential advice from our cancer nurse specialists, call the National Cancer Helpline on Freephone 1800 200 700
(Monday–Thursday, 9am–7pm, Friday 9am–5pm) or email helpline@irishcancer.ie

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