Your doctor has recommended tamoxifen therapy for you because there is clear and strong evidence that it reduces the chance of breast cancer recurrence and death from breast cancer and that this benefit outweighs the risks and side effects of this medication.

This information has been prepared by the BCCA Breast Tumour Group to help you understand the risks and benefits of tamoxifen.

At this time, the recommendation is for you to take

☐ Tamoxifen daily for 5 or 10 years depending on the patient and disease characteristics. Your cancer doctor will discuss what length of time is appropriate for you.

☐ Tamoxifen daily for 2-3 years, then a switch to an Aromatase Inhibitor for the balance of 5 years (for further information regarding aromatase inhibitors, please ask your cancer doctor for a handout if you have not already received one).

How Tamoxifen Works
Tamoxifen has been used to treat breast cancer for more than 30 years. One of the main ways it works is by binding to estrogen (female hormone) receptors on breast cancer cells. For this reason it is often called an “anti-estrogen”, but you may also hear it referred to as “hormone therapy”, or “hormone blocking therapy”. Breast cancer cells can use estrogen to help them grow. Tamoxifen prevents this “growth stimulus” by binding to the cells where estrogen ordinarily would. In this way it can prevent microscopic numbers of cancer cells from surviving. Tamoxifen also works in other ways to prevent growth and survival of breast cancer cells. Tamoxifen is not helpful in preventing recurrences of breast cancers which do not have either estrogen or progesterone receptors (often referred to as ER and PR negative cancers). It is given only for cancers that express (or have) at least one kind of these receptors (ER positive and/or PR positive).

Tamoxifen is taken by mouth once a day as a 20 mg tablet.
Benefits of Tamoxifen in Patients with Early Breast Cancer

Early breast cancer means cancer was found only in the breast plus or minus nearby lymph nodes. The power of tamoxifen to prevent breast cancer recurrences and breast cancer deaths has been demonstrated in numerous clinical trials involving over 55,000 women. From these studies we have learned to whom and for how long tamoxifen should be given, and what side effects may occur. For both premenopausal and postmenopausal women, tamoxifen has been shown to lessen the chance of a breast cancer recurrence by almost half. For example, if a woman is estimated to have a 30% chance of breast cancer recurrence, tamoxifen will decrease that risk to about 15%. Women who have had breast cancer have an increased risk of developing a second breast cancer compared to women who have never had breast cancer. Tamoxifen may also lessen the chance of developing a new cancer in either breast by about one half. Even if you have had chemotherapy, Tamoxifen may still be recommended, as chemotherapy and hormone blocking therapy each work independently to protect you from breast cancer recurrence.

Premenopausal women
Tamoxifen is recommended for most premenopausal women diagnosed with early stage ER and/or PR positive breast cancer. It is usually started after any planned chemotherapy, and may be started either before, during, or after any planned radiation, although most often after radiation.

Tamoxifen is usually recommended for 5 or 10 years for women who remain premenopausal after therapy for breast cancer. If menopause clearly develops while you are on tamoxifen, you may be recommended to switch to a second type of hormone blocking drug after 2-5 years of Tamoxifen. This will depend on the level of risk of cancer relapse. This “switch strategy” slightly improves the chance of remaining free of breast cancer relapse compared with continuing with tamoxifen for the full five years. Aromatase Inhibitors are not useful in women who are not in menopause. Menopausal status may not be clear within the first 1-2 years of therapy with tamoxifen, as chemotherapy sometimes causes long-lasting pauses in menstrual function.

Postmenopausal women
Tamoxifen is one treatment option for postmenopausal women with ER and/or PR positive breast cancer, usually started after any planned chemotherapy and radiation. Depending on the degree of side effects and stage of your breast cancer, tamoxifen may be recommended for 5 or 10 years or for 2-3 years followed by an aromatase inhibitor (another kind of hormone blocking therapy or “anti-estrogen”), to complete a total of 5 years of hormone blocking therapy.

All women
A recommendation to take tamoxifen always takes into consideration the potential risks and benefits that come with the medication. The bothersome and potentially serious side effects of tamoxifen are also described in the Cancer Drug Manual tamoxifen patient handout, which you should also receive along with this breast cancer specific information.
Talk to your cancer doctor if you are uncertain about your planned hormone blocking treatment. Anyone on tamoxifen should feel free to get in touch with their physician to discuss their drug therapy or questions arising from this information package.

**Side-Effects of Tamoxifen**

Please refer to the Cancer Drug Manual tamoxifen patient handout for a list of possible side effects and how to manage any problematic symptoms you experience while taking tamoxifen.

**Medication Interactions**

Drugs such as warfarin (COUMADIN®), rifampin may interact with tamoxifen and you may need extra blood tests or your doses may need to be changed.

Some drugs should be used with caution during tamoxifen treatment. These drugs include fluoxetine, paroxetine, chlorpromazine, miconazole, quinine, bupropion, ketoconazole, trazodone, sertraline and amiodarone.

You will need to talk with your doctor if you are taking any of these medications.

Breast Tumour Group
BC Cancer Agency