

## Breast Cancer Preventive Medicines

### Tamoxifen, Raloxifene and Aromatase Inhibition

Women who have a high risk of breast cancer can take medicines to lower their risk. Medicines include tamoxifen (Nolvadex®), raloxifene (Evista®) and aromatase inhibitors (exemestane or anastrozole).

Women who are pre-menopausal can take tamoxifen. Women who are post-menopausal can take tamoxifen, raloxifene or aromatase inhibitors.

These medicines come in the form of a pill. You take one pill a day, by month, for 5 years. You cannot take hormonal therapy while you take these medicines.

### Tamoxifen and Raloxifene

These medicines are called selective estrogen receptor modulators (SERMs). They block estrogen, a female hormone which may contribute to the growth of some breast cancer cells. By blocking estrogen, the growth of these cancer cells is slowed or stopped.

These medicines reduce the risk of invasive breast cancer by about half. The benefits are even greater for women who have had atypical ductal hyperplasia (ADH), atypical lobular hyperplasia (ALH), or lobular carcinoma in situ (LCIS).

For ADH and ALH, the risk of breast cancer is reduced by 86% (that is 86 out of 100 women have a lower risk). For LCIS, the risk of breast cancer is reduced by 56%. On average, women with these conditions will have a 75% reduction in their lifetime risk for breast cancer by taking preventative therapy.

Like most medicines, there may be side effects. Most women do not experience any side effects when they take these medicines. Some side effects can be treated. Possible side effects include:

- Hot flashes
- Night sweats
- Vaginal dryness or discharge
- Pain during sexual activity
- Birth defects (with Tamoxifen, you need to use a non-hormonal birth control method)
- Low sexual interest or arousal
- Leg cramps, musculoskeletal problems
- Weight gain

A benefit of raloxifene is that it can help prevent osteopenia and osteoporosis.

# Patient Education



Women taking SERM may be a slightly higher risk for:

- Stroke and blood clots
- Uterine cancer (with tamoxifen)
- Cataracts (with tamoxifen)

## **Aromatase Inhibitors**

Exemestane (Aromasin®) and anastrozole (Arimidex®) are aromatase inhibitor (AIs). They stop the body from making estrogen and may prevent breast cancer cells from growing.

The risk of breast cancer is lowered by about 53-65% (that is 53 to 65 out of 100 women with lower risk) with the use of AIs. Aromatase Inhibitors are not approved for use by the U.S. Food and Drug Administration (FDA), but can be prescribed. Side effects may include:

- Hot flashes
- Night sweats
- Joint aches
- Numbness or tingling of hands
- Vaginal dryness or burning
- Osteoporosis
- Irregular heartbeat
- High blood pressure

Breast Cancer Preventive Medicines: Tamoxifen, Raloxifene and Aromatase Inhibitors. The University of Texas MD Anderson Cancer Center © 2016. Revised 5/2021 and Reviewed 6/8/2021.