

## Let's Talk About It

We all want to find better ways to help prevent breast cancer. Medicines that reduce the risk of breast cancer are one way to help some women lower their risk. Women who have a higher risk for breast cancer are more likely to benefit from these medicines.

This guide is for you and your healthcare provider to use when talking about these medicines. It will help you:

- Know about risk factors for breast cancer
- Learn about the benefits and harms of these medicines
- Think about questions to ask your healthcare provider

## What are some of the risk factors for breast cancer?

These medicines are only recommended for women who are at higher risk of breast cancer.

To understand if you may be at higher risk of breast cancer, talk with your healthcare provider about risk factors such as:

- Family history
- Prior breast health issues
- Age

A healthcare provider will look at a combination of your risk factors to determine whether or not you are at higher risk.

## What are some questions to ask your healthcare provider?

Your healthcare provider can help answer your questions about breast cancer risk and medicines to lower risk, such as:

- 1 What is my risk of developing breast cancer?
- 2 How much can a medicine lower my risk?
- 3 What harms or side effects might I experience?
- 4 Should I take one of these medicines? If so, which one?
- 5 How do I take these medicines? How long do I take these medicines for?
- 6 What are other ways I can stay healthy and lower my risk of breast cancer?

## What are the benefits and harms of medicines that lower risk?

Medicines that lower the risk of breast cancer include raloxifene, tamoxifen, and aromatase inhibitors. While all help prevent breast cancer, each of these medicines has different benefits and harms.

### Benefits

-  These medicines lower the risk of getting breast cancer.
-  In addition, some of these medicines may also lower the chance of breaking a bone, such as the spine.

### Harms

Some of these medicines may increase the risk of getting:

-  Cataracts
-  Blood clots in a vein or the lungs
-  Cancer of the uterus

Other side effects of these medicines can include hot flashes and muscle and joint pain.

It is important to understand that not every medicine is right for everyone. For example, only tamoxifen is approved for women who have not yet reached menopause. Your healthcare provider can help you learn about the different options and discuss which medicine might be best for you and for how long you would need to take it.

To help healthcare providers and patients make decisions together about medicines to lower breast cancer risk, the U.S. Preventive Services Task Force has a recommendation on this topic (Medication Use to Reduce Risk of Breast Cancer). Related, the Task Force also has recommendations on Screening for Breast Cancer and BRCA-Related Cancer Prevention. To learn more, visit [www.USPreventiveServicesTaskForce.org](http://www.USPreventiveServicesTaskForce.org).



# Additional Information for Patients and Healthcare Providers

The following section provides additional guidance on determining a patient’s risk for breast cancer and the benefits and harms of the medicines, which healthcare providers can use with patients to aid the discussion and decision making process. It also provides some additional information on the data used in this guide.

## Determining Patient Risk

There are two ways healthcare providers can determine a woman’s risk – by considering a combination of risk factors or by using a risk assessment tool.

To determine a personal risk profile using risk factors, a combination of factors should be considered. For example, the following women may be at higher risk: a woman age 65 years or older with a close relative who had breast cancer; a younger woman with multiple close relatives who had breast cancer; or a woman who has had an abnormal result on a prior breast biopsy.

Risk assessment tools estimate the number of breast cancer cases expected in a population; they are not able to predict whether or not an individual woman will get breast cancer. Examples of breast cancer risk assessment tools include the National Cancer Institute (NCI) Breast Cancer Risk Assessment Tool (<https://bcrisktool.cancer.gov/>) and the Breast Cancer Surveillance Consortium Risk Calculator (<https://tools.bcsc-scc.org/bc5yearrisk/calculator.htm>).

Women with the BRCA gene are at higher risk for breast cancer, but currently, there is not enough evidence to know whether medicines that lower risk help these women.

## Understanding Benefits and Harms

Out of 1,000 women taking one of these medicines over 5 years, we would expect:

		Tamoxifen*	Raloxifene	Aromatase Inhibitors
<b>Benefits</b>	 <b>Breast Cancer</b>	7 fewer cases	9 fewer cases	16 fewer cases
	 <b>Fractures</b>	3 fewer cases	7 fewer cases	no difference**
<b>Harms</b>	 <b>Cataracts</b>	26 more cases	no difference	no difference
	 <b>Blood Clots</b> (venous thromboembolism events)	5 more cases	7 more cases	no difference
	 <b>Endometrial Cancer</b> (cancer of the uterus)	4 more cases	no difference	no difference

\* Only tamoxifen is approved for use in premenopausal women.

\*\* Aromatase inhibitors do not reduce, and may even increase, risk of fractures.

**Other side effects of these medicines can include hot flashes and muscle and joint pain.**

In the table above, no difference means that the medicine does not affect how many people get the condition.

In trials, participants typically used risk-reducing medications for 3 to 5 years.

## Source Data Information

The breast cancer figures used in this guide are based on invasive breast cancers.

Some trials may have included some women who were not at higher risk. For full data sources and more information about clinical implementation, see the USPSTF final recommendation statement on Medication Use to Reduce Risk of Breast Cancer, published September 2019, available on the Task Force website, [www.USPreventiveServicesTaskForce.org](http://www.USPreventiveServicesTaskForce.org). Companion pieces, including a clinician summary and evidence summary, are also available.