

Medications for the Risk Reduction of Primary Breast Cancer in Women

The U.S. Preventive Services Task Force (Task Force) has issued a **final** recommendation statement on *Medications for the Risk Reduction of Primary Breast Cancer in Women*.

This final recommendation statement applies to women older than age 35 who have not been diagnosed with breast cancer or with LCIS or DCIS (conditions in which cells in the milk glands or ducts are abnormal). This final recommendation statement does not apply to women who have a history of blood clots, stroke, or “mini-stroke” (when blood flow to the brain stops for only a short time; also called a transient ischemic attack).

The Task Force reviewed evidence on the use of medications, specifically tamoxifen and raloxifene, to reduce the risk for breast cancer. The final recommendation statement summarizes what the

Task Force learned about the potential benefits and harms of these medications: (1) Women who have a family history of breast cancer or who are concerned about their risk for breast cancer should talk with a health care professional. After a formal breast cancer risk assessment, women at increased risk should talk with their health care professional about the potential benefits and harms of taking a risk-reducing medication such as tamoxifen or raloxifene. These medications may have benefits for women who are at increased risk of breast cancer and at low risk for harms from the medications. (2) Women who are not at increased risk for breast cancer should not use tamoxifen or raloxifene to reduce their risk for breast cancer.

This fact sheet explains the recommendation and what it might mean for you.

What are medications to reduce breast cancer risk?

Tamoxifen and raloxifene have been shown to reduce a woman’s risk of developing breast cancer. These medications work by blocking the effects of estrogen in the breast tissue. Although they may reduce the risk of breast cancer in some women, they also have potentially serious side effects including blood clots, increased risk for endometrial cancer, and cataracts.

Facts About Breast Cancer and Assessing Breast Cancer Risk

Breast cancer is the second most common type of cancer among women in the United States (after skin cancer). In 2013, more than 232,000 new cases of breast cancer will be diagnosed, and nearly 40,000 women will die from it.

Screening tests, like mammography, help detect breast cancer early, but they can’t prevent cancer from developing.

If a woman has a family history of breast cancer or is concerned about her risk for developing the disease, the Task Force encourages her to talk about her risks with a health care professional. Her doctor or nurse may consider using a formal breast cancer risk assessment tool to learn more. This kind of tool looks at a variety of factors, including the woman's:

- Age
- Race or ethnicity
- Age at her first period
- Age when she had her first child
- Medical history of breast cancer or abnormal cells in the milk glands or ducts
- Family history of breast cancer
- Personal history of hormone use or breast biopsy (removing a small amount of tissue to test cells for cancer)
- Lifestyle factors, such as smoking, alcohol use, physical activity, and diet

Potential Benefits and Harms of Using Medications to Reduce Breast Cancer Risk

The Task Force reviewed recent studies on the benefits and harms of using medications to reduce the risk for developing breast cancer.

The Task Force found that in women who have already gone through menopause, tamoxifen and raloxifene can reduce the risk for developing breast cancer. Tamoxifen is more effective at reducing risk than is raloxifene. The Task Force also found that tamoxifen may reduce the risk of breast cancer for women with increased risk who have not yet gone through menopause.

The Task Force found that tamoxifen and raloxifene also have several serious potential harms, including increasing the risk for developing blood clots in the lungs or legs. This risk increases with age. Tamoxifen also may increase the risk of cataracts. In addition, tamoxifen increases the risk for endometrial cancer (cancer of the lining of the uterus). The potential for this harm is higher in women older than 50 and in women with a uterus. Both tamoxifen and raloxifene may cause hot flashes. Hot flashes are not as serious as the other harms, but they can affect a woman's quality of life and her willingness to use or continue using the medications.

Because the potential harms of tamoxifen and raloxifene are serious, it is important for women and their health care professionals to carefully assess the woman's risk for breast cancer and discuss the potential benefits and harms of these medications. The Task Force noted that only a small number of women are at increased risk for breast cancer and only some of these women would potentially benefit from tamoxifen and raloxifene.

The Final Recommendation Statement on Using Medications to Reduce the Risk for Breast Cancer: What Do They Mean?

Here are the Task Force's final recommendations on using tamoxifen or raloxifene to reduce the risks for developing breast cancer. The grades are based on the quality and strength of the evidence about the potential benefits and harms of screening for this purpose. They also are based on the size of the potential benefits and harms. Task Force recommendation grades are explained in the box at the end of this fact sheet.

When the Task Force recommends preventive counseling or medicine (**Grade B**), it is because they have more potential benefits than potential harms. When the Task Force recommends against preventive counseling or medicine (**Grade D**), it is because they have more potential harms than potential benefits. The Notes explain key ideas.

Visit the Task Force Web site to read the full [final recommendation statement](#). The statement explains the evidence the Task Force reviewed and how it decided on the grade. An [evidence report](#) provides more detail about the studies the Task Force reviewed.

1 The Task Force recommends that *clinicians* engage in *shared, informed decisionmaking* with women who are at increased risk for breast cancer about medications to reduce their risk. For women who are at increased risk for breast cancer and *at low risk for adverse medication effects*, clinicians should offer to prescribe risk-reducing medications such as tamoxifen or raloxifene.

Grade B

2 The Task Force recommends against the routine use of medications, such as tamoxifen or raloxifene, for risk reduction of *primary breast cancer* in women who are not at increased risk for breast cancer. **Grade D**

Should You Use Medications to Reduce Risk for Breast Cancer?

Getting the best health care means making smart decisions about what screening tests, counseling services, and preventive medications to get and when to get them. Many people don't get the tests, counseling, or medications they need. Others get tests, counseling, or medications they don't need or that may be harmful to them.

Task Force recommendations can help you learn about screening tests, counseling services, and preventive medications. These services can keep you healthy and prevent disease. The Task Force recommendations do not cover diagnosis (tests to find out why you are sick) or treatment of disease.

Task Force recommendations also apply to some groups of people, but not others. For example, this recommendation does not apply to women younger than 35 or to women who have been diagnosed with breast cancer or with LCIS or DCIS (conditions in which cells in the milk glands or ducts are abnormal). It also does not apply to women who have a history of blood clots, stroke, or "mini-strokes."

Making a decision about using medications to reduce breast cancer risk

Consider your own health and lifestyle. Think about your personal beliefs and preferences for health care. Talk with your health care professional about your risk factors for breast cancer and about the potential side effects of the medications. Be comfortable that all your questions have been answered. And consider scientific recommendations, like this one from the Task Force. Use this information to become fully informed and to decide whether these medications are right for you.

Notes

1 *clinicians*

Health care professionals, including doctors, nurses, physician assistants, and nurse practitioners.

shared, informed...

An open conversation between a clinician and patient that covers all the issues so that a patient can make an informed decision.

at low risk for...

Not likely to experience harms from the medicine.

2 *primary breast cancer*

Breast cancer in a woman who has never had breast cancer before. Breast cancer that comes back after treatment is not considered a primary breast cancer.



What is the U.S. Preventive Services Task Force?

The Task Force is an independent group of national experts in prevention and evidence-based medicine. The Task Force works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, or preventive medicines. The recommendations apply to people with no signs or symptoms of the disease being discussed.

To develop a recommendation statement, Task Force members consider the best available science and research on a topic. For each topic, the Task Force posts draft documents for public comment, including a draft recommendation statement. All comments are reviewed and considered in developing the **final recommendation statement**. To learn more, visit the [Task Force Web site](#).

USPSTF Recommendation Grades

Grade	Definition
A	Recommended.
B	Recommended.
C	Recommendation depends on the patient's situation.
D	Not recommended.
I statement	There is not enough evidence to make a recommendation.

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