



# Hormones, Women, & Breast Cancer

## WHO IS AT RISK FOR BREAST CANCER?

Breast cancer is one of the most common cancers in American women, especially for those who started their periods early (before age 12) or reached menopause late (after age 55).

Breast cancer is more common among women who

- Are older
- Have no children
- Delayed pregnancy until after age 30
- Have used combination hormone therapy (estrogen plus progestin) for more than five years
- Have a mother, sister, or daughter who has had breast cancer

## DID YOU KNOW?

**Breast pain alone is not a sign of breast cancer, but other symptoms can mean there is a problem.**

## WHAT CAUSES BREAST CANCER?

Your genes and your hormones play a role in breast cancer but we don't know exactly how. We know that estrogen (the major female hormone) and progestin (a synthetic form of progesterone, another female hormone) can cause breast tissue to grow faster than normal. Cancer usually appears in tissue that grows fast.

## HOW IS BREAST CANCER DIAGNOSED?

The most common way to find breast cancer is through a breast exam or mammogram (x-ray). Some women at high risk may need a screening MRI (magnetic resonance imaging) scan, which is more sensitive than a mammogram.

Not all lumps are cancer. If you find a lump, or a lump that has changed in size or consistency, your doctor may order a variety of tests to make sure that it is benign (not cancer). These tests can include

- A mammogram
- A breast ultrasound
- A sample of cells from the lump (called a fine needle aspirate)
- A sample of a piece of tissue from the lump (called a core biopsy)

## POSSIBLE SYMPTOMS OF BREAST CANCER

- A lump
- A change in the size or shape of the breast
- Puckering, dimpling, and redness of the breast skin
- Nipple discharge from one breast but not the other
- Bloody discharge from a nipple

## HOW IS BREAST CANCER TREATED?

Treatment for breast cancer depends on the type and the stage of the cancer. Typical treatments include surgery, radiation therapy, chemotherapy, anti-estrogen hormone therapy, or a combination of these.

Anti-estrogen hormone therapy works by blocking the effect of female hormones on the cancer. The most commonly used therapy is a female hormone blocker called tamoxifen. A newer therapy uses a pill (anastrozole, letrozole, or exemestane) to prevent the body from making female hormones.

If you are at high risk for developing breast cancer, tamoxifen or raloxifene can also be taken to prevent the disease.

Your doctor will work with you to determine the best treatment option for you.

## WHAT YOU CAN DO TO PREVENT BREAST CANCER AND TO SEE IF YOU HAVE IT?

Lifestyle changes, such as regular exercise and avoiding excess alcohol, may be helpful in preventing breast cancer. Annual breast exams by your doctor are recommended. You should have a screening mammogram every year or two, starting no later than age 50. Most health professional organizations recommend beginning mammograms at age 40.

If you are at high risk for breast cancer, you should get an annual mammogram beginning at age 40. Talk with your provider about other screening tests, medications to prevent breast cancer, or genetic testing if you have a family history of breast cancer.

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## Questions to ask your doctor

- What is my risk for breast cancer?
  - If I'm at high risk, should I take medication to prevent breast cancer?
  - Do I need to do breast self-exams? How often?
  - How often do I need to get a mammogram?
  - Should I see an endocrinologist?
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The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society ([www.endo-society.org](http://www.endo-society.org)). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at [www.hormone.org/Spanish](http://www.hormone.org/Spanish).



## RESOURCES

- Find-an-Endocrinologist: [www.hormone.org](http://www.hormone.org) or call 1-800-HORMONE (1-800-467-6663)
- MedlinePlus (National Institutes of Health): [www.nlm.nih.gov/medlineplus/breastcancer.html](http://www.nlm.nih.gov/medlineplus/breastcancer.html)
- Mayo Clinic: [www.mayoclinic.com/health/breast-cancer/DS00328](http://www.mayoclinic.com/health/breast-cancer/DS00328)
- National Cancer Institute (National Institutes of Health): [www.cancer.gov/cancertopics/types/breast](http://www.cancer.gov/cancertopics/types/breast) or call 1-800-422-6237
- Susan G. Komen Breast Cancer Foundation: [ww5.komen.org](http://ww5.komen.org) or call 1-877-465-6636
- Y-ME National Breast Cancer Organization: [www.y-me.org](http://www.y-me.org) or call 1-800-221-2141