

## What is Breast Cancer?

Breast cancer is a malignant tumor that develops from the cells of the breast. It is the most common type of cancer among women in the United States. It is most often curable when found early. The normal breast consists of three main components: the lobules (milk-producing glands), the ducts (thin tubes that connect the lobules to the nipple) and the stroma (fatty tissue and ligaments surrounding the ducts and lobules, blood vessels, and lymphatic vessels). About 80% of breast cancers start in the ducts.

## What are the early signs of breast cancer?

Some of the warning signs of breast cancer include:

- A lump or thickening in or near the breast or in the underarm areas;
- A change in the size or shape of the breast;
- A discharge from the nipple; or
- A change in the color or feel of the skin (dimpled, puckered, or scaly) of the breast, areola (dark area of skin surrounding the nipple), or nipple.

Some of these symptoms may also be caused by diseases that aren't cancer, so seeing your health care provider is the only way to find out what may be causing these symptoms.

The single most effective way a woman can detect early breast cancer is through routine mammography. A mammogram can detect a tumor about two years before it can be felt by a woman or her health care provider.

## How is breast cancer diagnosed?

Your health care provider may do one or more of the following procedures to determine if you have breast cancer:

- Complete medical history
- Physical exam which includes palpation of the breast and nearby lymph nodes
- Imaging tests such as diagnostic mammography and breast ultrasound
- Aspiration or needle biopsy to determine if a lump is a cyst or a solid mass and to check for cancer cells
- Surgical biopsy

## Early Detection of Breast Cancer

*Early detection of breast cancer through clinical breast exams and screening mammograms provides the best means of reducing the risk of dying from breast cancer.*

### **What is a mammogram?**

*A screening mammogram is an x-ray of the breast used to find breast changes in women who have no signs of breast cancer. It usually involves two x-rays of each breast. During the procedure, the breast is placed between two plastic plates and compressed to flatten and spread it. This may be uncomfortable; however, it is necessary to get a good picture of the breast tissue that can be examined by a radiologist.*

### **What about the radiation from a mammogram? Should I worry about this?**

*Data from the atomic bomb survivors and other groups show that the radiation related increase in breast cancer risk is low in women exposed after the age of 40. And modern mammography equipment is designed to use low levels of radiation, usually about 0.2 rad per x-ray. Mammography providers must meet very strict quality control guidelines (for equipment and staff) in order to be certified by the Food and Drug Administration and accredited by the American College of Radiology. The benefits of mammography far outweigh any risk from radiation exposure.*

### **Where can I go for a mammogram?**

*Women can ask their health care providers about where to go for a mammogram. Alternatively, information about FDA-certified mammography facilities is available from the National Cancer Institute at 1-800-4-CANCER and from the State of Ohio Department of Health at (513) 584-4324 or (888) PAP-MAMM.*

## What are the treatments for breast cancer?

There are four main treatment options for breast cancer. They are most often used in combination. The treatment plan chosen is based on the type and stage of the cancer, the hormone (estrogen and progesterone) receptor levels in the cancer, and measures of how rapidly the cancer is likely to grow, as well as age, menopausal status, general health and feelings of the patient regarding treatment options. The treatments are:

- Surgery - usually includes options ranging from removal of only the lump and a surrounding margin of normal breast tissue (lumpectomy) through removal of the entire breast and underarm lymph nodes (modified radical mastectomy)
- Chemotherapy
- Radiation therapy
- Hormonal therapy (e.g. tamoxifen, an anti-estrogen drug)

## What can I do to reduce my risk of breast cancer?

The strongest risk factors for breast cancer are things that a woman cannot control, such as age, personal or family history of breast cancer, and age at menopause. Links with diet, obesity and alcohol consumption have been suggested, and the American Cancer Society advises that maintaining an ideal body weight and reducing alcohol consumption may reduce breast cancer risk. Women at high risk due to a family history of the disease should discuss their concerns with their primary care provider. Early detection of breast cancer through clinical breast exams and screening mammograms provides the best means of reducing the risk of dying of breast cancer.

### **What is a clinical breast exam?**

*A clinical breast exam is a physical examination of your breast by a health care provider. During the examination, your health care provider will look for signs of breast disease in each breast. He/she will palpate (feel) each breast to locate lumps or changes in the texture of breast tissue, will look for nipple discharge, and will palpate the lymph nodes under the arms.*

### **How often should I have a screening mammogram and clinical breast exam?**

*The Department of Health and Human Services' Preventive Services Task Force recommends that women aged 50-69 be screened for breast cancer every 1-2 years, with mammography alone or mammography and an annual clinical breast exam. Experts do not agree on the use of routine screening mammography and clinical breast exams in women aged 40-49, nor on an upper age limit. Younger and older women, particularly those at high risk because of factors such as a family history of the disease, should consult with their health care provider about breast cancer screening.*

### **Where to Find More Information on Breast Cancer**

**American Cancer Society**  
phone: 1-800-ACS-2345,  
web site: [www.cancer.org](http://www.cancer.org)

**National Cancer Institute**  
phone: 1-800-4-CANCER  
web site: [www.rex.nci.nih.gov](http://www.rex.nci.nih.gov)

**National Alliance of Breast Cancer Organizations (NABCO)**  
phone: 1-800-719-9154  
web site: [www.nabco.org](http://www.nabco.org)

**Listing of FDA Certified Mammography Facilities**  
web site: [www.fda.gov/cdrh/faclist.html](http://www.fda.gov/cdrh/faclist.html)