

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

The following are health and medical definitions of terms that may appear in reference to breast cancer. These definitions are not complete nor are they to be a definitive answer to your questions. Your physician or other medical sources should be consulted for comprehensive information.

A

**ablative therapy:** treatment that involves the removal or destruction of the function of an organ, as in the surgical removal of the ovaries or the administration of some types of chemotherapy that causes the ovaries to stop functioning.

**abnormal:** not normal, deviating from the usual structure, position, condition, or behavior. In referring to a growth, abnormal may mean that it is cancerous or premalignant (likely to become cancer).

**abscess:** A closed pocket of tissue containing pus (a creamy, thick, pale yellow or yellow-green fluid that comes from dead tissue); most commonly caused by a bacterial infection.

**accessory breast tissue:** An uncommon condition in which additional breast tissue is found in the axillary (underarm) area. Women with this condition often require special mammography views.

**acini:** another term for the lobules of the breast. Lobules are milk-producing glands.

**adenocarcinoma:** cancerous tumors of the glands, such as in the ducts or lobules of the breast.

**adenoma:** a benign growth originating in the glandular tissue of the breast that can compress adjacent tissue as it grows in size. See also fibroadenoma.

**adjuvant therapy:** additional treatment given after the main treatment plan to decrease the chance of recurrence. Adjuvant therapy for breast cancer can include chemotherapy, hormone therapy, radiation therapy, or biological therapy to cure, reduce, or control cancer.

**adrenal gland:** one adrenal gland is located near each kidney. Their main function is to produce hormones that regulate metabolism and control fluid balance and blood pressure. Adrenal glands also produce small amounts of "male" hormones (androgens) and "female" hormones (estrogens and progesterone).

**advanced cancer:** stage of cancer in which the disease has spread from the primary site to other parts of the body.

**advanced cancer:** a stage of cancer in which the disease has spread from the primary site to other parts of the body. When the cancer has spread only to the surrounding areas, it is called locally advanced. If it has spread further by traveling through the bloodstream, it is called distantly advanced or metastatic.

**allogeneic transplant:** the transfer of bone marrow from one person to another.

**alopecia:** a partial or complete loss of hair that may result from radiation therapy to the head, chemotherapy, skin disease, drug therapy, and natural causes.

**alternative treatment:** see therapy.

**American Cancer Society:** an organization that supports research, educational materials and programs, and offers many other services to cancer patients and their families.

**Anastrozole (brand name, Arimidex):** see Arimidex.

**androgen:** male sex hormone which may be used to treat recurrent breast cancer by opposing the activity of estrogen.

**Anemia:** a condition that occurs when there is not enough hemoglobin in a person's blood. Hemoglobin is a substance in the red blood cells that enables the blood to transport oxygen through the body.

**anesthesia:** loss of feeling or awareness. A general anesthetic puts the person to sleep. A local anesthetic causes loss of feeling in a part of the body such as a tooth or an area of skin without affecting consciousness. Regional anesthesia numbs a larger part of the body such as a leg or arm, also without affecting consciousness. The term "conduction anesthesia" encompasses both local and regional anesthetic techniques. Many surgical procedures can be done with conduction anesthesia without significant pain. In many situations conduction anesthesia is safer and therefore preferable to general anesthesia. However, there are also many types of surgery in which general anesthesia are clearly appropriate.

**aneuploid:** an abnormal number of chromosomes; a characteristic of cancer. See also ploidy.

**anthracyclines:** a class of chemotherapy drugs used to inhibit or prevent the development and growth of cancer cells

**anti-estrogen:** used to treat breast cancers that depend on estrogen for growth

**antibiotic:** chemical substances that are either produced from cultures of microorganisms or produced artificially for the purpose of killing other organisms that cause disease. Antibiotics may be needed along with the cancer treatment to prevent or treat infections.

**antibody:** a protein that is present in the blood, made by cells of the immune system to fight infection. Some antibodies are a normal part of the body's immune defense, and others are made in response to a foreign substance. Scientists can make antibodies that target specific types of cells in the body.

**Antiemetic:** also spelled Antemetec. A drug used to control nausea and vomiting (emesis), which are common side effects of chemotherapy. Antiemetic drugs can be used before, during, or after chemotherapy. Granisetron and Ondansetron are examples of antiemetic drugs.

**antiestrogen:** a substance that blocks the effects of the hormone estrogen on tumors (for example, the drug Tamoxifen). Antiestrogens are used to treat breast cancers that depend on estrogen for growth.

**antigen:** a chemical substance that stimulates an immune system response. This reaction often involves production of antibodies. For example, the immune system's response to antigens that are part of bacteria and viruses helps people resist infections. Cancer cells have certain antigens that can be detected by laboratory tests, and are important in cancer diagnosis and in monitoring response to treatment. Other cancer cell antigens play a role in immune reactions that may help the body's resistance against cancer.

**antimetabolites:** substances that interfere with the body's chemical processes, such as creating proteins, DNA, and other chemicals needed for cell growth and reproduction. In treating cancer, antimetabolite drugs interfere with DNA production, which in turn prevents cell division and growth of tumors. (See also DNA).

**archived tissue:** tissue biopsy samples that have been preserved in wax for future study; ask your doctor about the location of your stored tissue

**areola:** dark area of skin that surrounds the nipple of the breast.

**Arimidex (generic name, Anastrozole):** a drug sometimes used to treat advanced breast cancer in post-menopausal women who have not responded well to treatment with the drug tamoxifen.

**Aromasin:** brand name of Exemestane. Drug used to treat metastatic breast cancer in post-menopausal women. Works by binding to the body's aromatase enzyme, an enzyme responsible for producing the hormone, estrogen.

**aromatase inhibitors:** a new class of drugs that decreases the production of estrogen and is used as hormonal therapy in breast cancer that is estrogen-receptor positive

**aspiration:** removal of tissue or fluid from a lump or cyst with a needle and syringe. (See also needle aspiration).

**asymmetrical:** not proportional or the same. It is normal for women to have slightly asymmetrical breasts.

**asymmetry:** an area that is not found to be identical in both breasts (such as tissue density). It is often a normal variant but can also be a sign of an abnormal growth.

**asymptomatic:** to be without noticeable symptoms of disease (literally "not symptomatic" or no symptoms of the disease). Many cancers can develop and grow without producing symptoms, especially in the early stages. Screening tests, such as mammography, try to discover developing cancers at the asymptomatic stage, when the chances for cure are usually highest. (See also screening).

**atypical lobular hyperplasia:** abnormally shaped cells multiplying excessively in the normal tissue of a breast lobule.

**atypical hyperplasia:** a benign (non-cancerous) condition in which breast tissue has certain abnormal features. This condition increases the risk of breast cancer.

**atypical:** literally, "not typical." Exhibits unusual characteristics. For example, atypical hyperplasia is a dangerous increase in the number of breast cells; a sign that breast cancer may develop.

**augmentation mammoplasty:** surgery to increase the size of the breast(s). Also called breast augmentation surgery.

**autologous:** using one's own tissue. An autologous reconstruction uses the patient's own tissue to reconstruct the breast.

**Axilla:** the underarm

**axillary:** pertaining to the cavity beneath the junction of the arm and the body, better known as the armpit.

B     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**baseline:** information gathered at the beginning of a study from which variations found in the study are measured. The initial time point in a clinical trial, just before a participant starts to receive the experimental treatment which is being tested. At this reference point, measurable values such as CD4 count are recorded. Safety and efficacy of a drug are often determined by monitoring changes from the baseline values.

**benign:** not cancerous; not malignant. The main types of benign breast problems are fibroadenomas and fibrocystic change. See also fibroadenoma, fibrocystic change.

**benign tumor:** a non-cancerous growth that does not spread to nearby tissues or other parts of the body

**bilateral:** affecting both sides of the body; for example, bilateral breast cancer is cancer occurring in both breasts at the same time (synchronous) or at different times (metachronous).

**biologic response modifiers:** Substances that boost the body's immune system to fight against cancer. See also interferon.

**biological therapy:** treatment to stimulate or restore the ability of the immune (defense) system to fight infection and disease. Biological therapy is thus any form of treatment that uses the body's natural abilities that constitute the immune system to fight infection and disease or to protect the body from some of the side effects of treatment. Also called immunotherapy.

**biopsy:** a procedure in which tissue samples are removed from the body for examination of their appearance under a microscope to find out whether cancer or other abnormal cells are present. A biopsy can be done with a needle or by surgery.

**biotechnology:** the application of the principles of engineering and technology to the life sciences—for example, using biological substances to create new drugs.

**blood:** the familiar red fluid in the body that contains white and red blood cells, platelets, proteins, and other elements. The blood is transported throughout the body by the circulatory system. Blood functions in two directions: arterial and venous. Arterial blood is the means by which oxygen and nutrients are transported to tissues while venous blood is the means by which carbon dioxide and metabolic by-products are transported to the lungs and kidneys, respectively, for removal from the body.

**blood count:** The number of red blood cells, white blood cells, and platelets in a sample of blood. Also called complete blood count (CBC).

**board certified:** board certified in medicine means a physician has taken and passed a medical specialty examination.

**bone densitometry:** exam used to measure a patient's bone mineral density of various parts of the body, such as the spine, hip, heel, or wrist. The exam is useful in determining whether a patient has osteoporosis.

**bone marrow:** the soft, sponge-like material inside bone. Blood cells are produced in the bone marrow.

**bone marrow transplant:** a complex treatment that may be used when breast cancer is advanced or has recurred. The bone marrow transplant makes it possible to use very high doses of chemotherapy that would otherwise be impossible. Autologous bone marrow transplant means that the patient's own bone marrow is used. An allogeneic bone marrow transplant uses marrow from a donor whose tissue type closely matches the patient's. A portion of the patient's or donor's bone marrow is withdrawn, cleansed, treated, and stored. The patient is then given high doses of chemotherapy that kill the cancer cells but also destroy the remaining bone marrow, thus robbing the body of its natural ability to fight infection. The

cleansed and stored marrow is given by transfusion (transplanted) to rescue the patient's immune defenses. Although this method has been widely reported by the media, and it has given good results in many people, it has not been scientifically proven to be more effective than conventional therapies in treating breast cancer. It is a risky procedure that involves a lengthy and expensive hospital stay that may not be covered by the patient's health insurance. The best place to have a bone marrow transplant is at a comprehensive cancer center or other facility that has the technical skill and experience to perform it safely.

**bone marrow transplantation:** a procedure in which doctors replace marrow destroyed by high doses of anticancer drugs or radiation. The replacement marrow may be taken from the patient before treatment or may be donated by another person. The new bone marrow is given to restore normal blood cell function.

**bone scan:** a nuclear medicine imaging method that gives important information about the bones, including the location of cancer that may have spread to the bones. It can be done as an outpatient procedure and is usually painless, except for the needle stick when a low-dose radioactive substance is injected into a vein. Images are taken to see where the radioactivity accumulates, indicating an abnormality.

**bone (skeletal) survey:** X-ray imaging of the entire skeleton.

**brachytherapy:** a technique that involves placing radioactive substances directly into body tissue next to the cancer. Brachytherapy is currently being developed to use on breast cancer patients. Also called internal radiation.

**brain scan:** a nuclear medicine imaging method used to find abnormalities in the brain, including brain cancer and cancer that has spread to the brain from other places in the body. This procedure can be done in an outpatient clinic. It is painless, except for the needle stick when a radioactive substance is injected into a vein. The images taken will show where radioactivity accumulates, indicating an abnormality.

**breast:** the breast refers to the front of the chest or, more specifically, to the mammary gland. The mammary gland is a milk producing gland. It is composed largely of fat. Within the mammary gland is a complex network of branching ducts. These ducts exit from sac-like structures called lobules, which can produce milk in females. The ducts exit the breast at the nipple.

**breast augmentation surgery:** Surgery to increase the size of the breast(s). Also called augmentation mammoplasty.

**breast cancer:** breast cancer is diagnosed with self- and physician-examination of the breasts, mammography, ultrasound testing, and biopsy. There are many types of breast cancer that differ in their capability of spreading to other body tissues (metastasis). Treatment of breast cancer depends on the type and location of the breast cancer, as well as the age and health of the patient. The American Cancer Society recommends that a woman should have a baseline mammogram between the ages of 35 and 40 years. Between 40 and 50 years of age

mammograms are recommended every other year. After age 50 years, yearly mammograms are recommended.

**breast biopsy:** a procedure in which a sample of a suspicious breast growth is removed and examined, usually for the presence of cancer. The sample is suctioned out through a needle or removed surgically.

**breast cancer:** cancer that originates in the breast. The main types of breast cancer are ductal carcinoma in situ, invasive ductal carcinoma, invasive lobular carcinoma, medullary carcinoma, and Paget's disease of the nipple. Lobular carcinoma in situ (LCIS) is sometimes considered to be a type of breast cancer, but most breast specialists feel LCIS is a marker for increased breast cancer risk, and not a true cancer.

**breast compression:** the flattening of the breast so that the maximum amount of tissue can be imaged and examined during mammography.

**breast conservation therapy:** also called lumpectomy; the surgical removal of a cancerous breast lump and a small amount of non-cancerous tissue around the lump, without removing any other part of the breast. The method may or may not require an axillary dissection. Breast conservation therapy is usually followed by at least six weeks of radiation. See also lumpectomy and radiation therapy.

**breast density:** describes breast tissue that has many glands close together. Density shows up as a white area on a mammogram film. Though fairly common (especially in younger women), dense breasts may make microcalcifications and many other masses difficult to detect.

**breast expander:** a device used to stretch the remaining breast skin after a mastectomy. A breast expander is similar to a balloon, and the surgeon will fill the expander with salt-water solution periodically (usually once a week). The expansion process typically takes three to four months. After the skin is sufficiently stretched, the surgeon will replace the expander with a permanent breast implant. Also called tissue expander.

**breast-feeding:** giving a baby milk from the breast. Also called suckling or nursing.

**breast implant:** a manufactured sac that is filled with silicone gel (a synthetic material) or saline (sterile saltwater). The sac is surgically inserted to increase breast size or restore the contour of a breast after mastectomy (breast removal). Because of concern about possible (but unproven) side effects of silicone, silicone implants are presently available only to women who agree to participate in a clinical trial in which side effects are carefully monitored.

**breast lift surgery:** see mastopexy.

**breast lump:** a localized swelling, knot, bump, bulge or protuberance in the breast. Breast lumps may appear in both sexes at all ages. In women, the fear is usually of breast cancer but many breast lumps turn out, fortunately, to be due to benign conditions that can be successfully treated such as infection, trauma, fibroadenoma, cyst, or fibrocystic condition of the breast.

However, no breast lump should be dismissed as benign until it has been checked by a physician.

**breast pain:** cyclic or non-cyclic pain in the breast or in the axilla (underarm) region of the body. Approximately 15% of women with breast pain require treatment. Breast pain is not usually (but can be) associated with breast cancer. Also called mastalgia.

**breast prosthesis:** an external breast form. Some women wear prostheses after mastectomy (breast removal). Many prostheses resemble the body's own weight and touch.

**breast reconstruction:** surgery that rebuilds the breast contour after mastectomy. A breast implant or the woman's own tissue provides the contour. If desired, the nipple and areola may also be re-created. Reconstruction can usually be done at the time of mastectomy or any time later. (See also mammoplasty).

**breast reduction surgery:** surgery to reduce the size of the breast(s). Also called reduction mammoplasty.

**breast repositioning:** see mastopexy.

**breast self-examination (BSE):** a technique of checking one's own breasts for lumps or suspicious changes. The method is recommended for all women over age 20, to be done once a month. It is recommended that pre-menopausal women perform BSE the week after menstruation when the breasts are typically least tender.

**breast specialist:** a term describing health care professionals who have a dedicated interest in breast health. While they may acquire specialized knowledge in this area, medical licensing boards do not certify a specialty in breast care.

**breast surgeons:** physicians who specialize in the surgical removal of breast tumors while conserving as much of the breast as possible

**BRCA1:** Breast Cancer Gene 1. A gene which, when damaged (mutated), places a woman at greater risk of developing breast and/or ovarian cancer, compared with women who do not have the mutation. In a woman with a BRCA1 mutation, the estimated lifetime risk of developing breast cancer is about 50% compared with about 12% in the general population. A person who has this mutated gene has a 50% chance of passing on the gene to each of her children. A genetic test is available, but it is recommended only for women who are known to be at risk because several women in their family have had breast or ovarian cancer at an early age (before menopause). Any women considering the test should consider receiving genetic counseling.

**BRCA2:** Breast Cancer Gene 2. A gene which, when damaged or mutated, puts the carrier at a higher risk for developing breast cancer and/or ovarian cancer than the general population. In a woman with a BRCA2 mutation, the estimated lifetime risk of developing breast cancer is 50% - 60%. BRCA2 and BRCA1 together account for about 80% of the breast cancers that occur in

women with strong family histories of the disease. BRCA2 is also thought to raise the risk for breast cancer in men. A genetic test for BRCA2 is available but is only recommended for women or men with strong family histories of breast or ovarian cancer. Any women considering the test should consider receiving genetic counseling.

C     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**cachexia:** general lack of nutrition or wasting that occurs in the course of some cancer cases.

**calcifications:** small calcium deposits within the breast, singly or in clusters, that are usually found by mammography. These are also called microcalcifications and macrocalcifications. They are a sign of change within the breast that may be monitored by additional, periodic mammograms, or by immediate or delayed biopsy. They may be caused by benign (non-cancerous) breast conditions or by breast cancer.

**cancer:** an abnormal growth of cells which tend to proliferate in an uncontrolled way and, in some cases, to metastasize (spread). A general term for more than 100 diseases in which malignant (cancerous) cells develop. Some exist quietly within the body for years without causing a problem. Others are aggressive, rapidly forming tumors that may invade and destroy surrounding tissue and travel through the lymph system or bloodstream to distant areas of the body.

**cancer care team:** the group of health care professionals who cooperate in the diagnosis, treatment, after-care, and counseling of people with cancer. The breast cancer care team may include any or all of the following and others: primary care physician and/or gynecologist, pathologist, oncology specialists (medical oncologist, radiation oncologist), surgeon, nurse, oncology nurse specialist, oncology social worker. Whether the team is linked formally or informally, there is usually one person who takes the job of "referee." See also case manager.

**cancer cell:** a cell that divides and reproduces abnormally and can spread throughout the body. See also metastasis.

**cancer detection:** methods used to find cancer in persons who may or may not have symptoms. Symptoms of cancer are abnormal sensations or conditions that persons can notice that are a result of the cancer. It is important to your doctor for regular checkups and not wait for problems to occur. But you should also know that the following symptoms may be associated with cancer: changes in bowel or bladder habits, a sore that does not heal, unusual bleeding or discharge, thickening or lump in the breast or any other part of the body, indigestion or difficulty swallowing, obvious change in a wart or mole, or nagging cough or hoarseness . These symptoms are not always a sign of cancer. They can also be caused by less serious conditions. Only a doctor can make a diagnosis. It is important to see a doctor if you have any of these symptoms. Don't wait to feel pain. Early cancer often does not cause pain.

**cancer registry:** a state agency that collects information about cancer cases.

**cancer related checkup:** a routine health examination for cancer in persons without obvious signs or symptoms of cancer. The goal of the cancer-related check-up is to find the disease, if it exists, at an early stage, when chances for cure are greatest. Clinical breast examinations, Pap smears, and skin examinations are examples of methods used in cancer-related check-ups. (See also detection, screening).

**Capecitabine:** brand name, Xeloda. Drug used to treat metastatic breast cancer in patients who have not responded well to chemotherapy that included Taxol (generic name, Paclitaxel) and an anthracycline (such as Adriamycin or Doxorubicin). Capecitabine works by converting to a substance called 5-fluorouracil in the body. In some patients, Capecitabine helps shrink tumor size by killing cancer cells.

**capsule formation:** scar tissue that may form around a breast (or other type of) implant as the body reacts to the foreign object. Sometimes called a contracture.

**carcinogen:** any substance that causes cancer or helps cancer to grow. For example, tobacco smoke contains many carcinogens that have been proven to dramatically increase the risk of lung cancer.

**carcinoma:** cancer that begins in the skin or in tissues that line or cover body organs. For example, carcinoma can arise in the breast, colon, liver, lung, prostate, and stomach. At least 80% of all cancers are carcinomas, and almost all breast cancers are carcinomas.

**carcinoma in situ:** an early stage of cancer, in which the tumor is still only in the structures of the organ where it first developed, and the disease has not invaded other parts of the organ or spread (metastasized). Most in situ carcinomas are highly curable.

**cardiac dysfunction:** a disease or disorder of the heart muscle which results in reduced heart function

**cardiac ejection fraction:** the amount of blood released in the heart with each heartbeat; this may be used to measure the loss of heart muscle function

**cardiotoxicity:** toxicity that affects the heart.

**case manager:** the member of a cancer care team—usually a nurse or oncology nurse specialist—who coordinates the patient's care throughout diagnosis, treatment, and recovery. The case manager is a new concept that provides a guide through the complex system of health care by helping cut through red tape, getting responses to questions, managing crises, and connecting the patient and family to needed resources.

**catheter:** a thin tube through which fluids can enter and leave the body.

**cell:** the basic unit of all living organisms. Organs are clusters of cells that have developed specialized tasks. Cells replace themselves by splitting and forming new cells (mitosis). The processes that control formation of new cells and death of old cells are disrupted in cancer.

**cell nucleus:** the control center of the cell where genetic material is located.

**chemoprevention:** prevention or reversal of disease using drugs, chemicals, vitamins, or minerals. While this idea is not currently widely used, it is a very promising area of study. The Breast Cancer Prevention Trial has shown that the drug Tamoxifen can prevent some cases of breast cancer among women with high risk of this disease. However, the drug has some serious side effects.

**chemotherapy :** treatment with drugs to destroy cancer cells. Chemotherapy is often used in addition to surgery or radiation to treat cancer when metastasis (spread) is proven or suspected, when the cancer has come back (recurred), or when there is a strong likelihood that the cancer could recur. Chemotherapy may be given after breast surgery to patients with early stages of breast cancer to kill any microscopic cancer cells, decreasing the risk of recurrence. Occasionally, the surgeon and medical oncologist may recommend chemotherapy prior to breast surgery to decrease the size of the tumor so that less tissue will need to be removed. (See also adjuvant therapy). Also called "chemo" for short.

**chest wall invasion:** the growth of breast cancer into the pectoralis (chest wall) muscle; typically occurs with larger advanced cancers or with smaller cancers initially located near the pectoralis muscle.

**chromosome:** a DNA molecule that contains genes arranged end-to-end. In humans and plants, chromosomes are located in the cell's nucleus (center).

**clear margins:** pathological term used to describe an adequate amount of normal tissue that is surgically removed along with the breast cancer.

**cleavage view:** also called "valley view," it is a mammogram view of the most medial portions of the breasts. This is the portion of breast tissue "in the valley" between the two breasts.

**clinical:** having to do with the examination and treatment of patients. Applicable to patients. A laboratory test may be of clinical value (of use to patients).

**clinical breast examination (CBE):** a physical examination of the breast conducted by a health care professional such as a physician, physician assistant, nurse or nurse practitioner. The purpose of CBE is to detect lumps or suspicious breast changes that may warrant further attention.

**clinical trial:** a research study designed to answer specific questions about new therapies or new drugs; trials to evaluate the effectiveness and safety of medications or medical devices by monitoring their effects on large groups of people.

**cluster:** in epidemiology, an aggregation of cases of a disease or another health-related condition, such as a cancer or birth defect, closely grouped in time and place. The number of cases in the cluster may or may not exceed the expected number. This is determined by cluster analysis, a set of statistical methods used to analyze clusters.

**colony stimulating factors:** laboratory-made substances similar to substances in the body that stimulate the production of blood cells. Treatment with colony-stimulating factors can help cells in the bone marrow recover from the effects of chemotherapy and radiation therapy.

**combination chemotherapy:** the use of more than one drug to treat cancer.

**complete blood count (CBC):** the number of red blood cells, white blood cells, and platelets in a sample of blood. Also called blood count.

**computed axial tomography (CAT scan):** an image of a cross-section of the body created with x-rays and computers

**computed tomography:** an imaging procedure in which multiple x-rays are taken of a part of the body to produce cross-sectional images of internal organs. Except for injection of a dye (needed in some but not all cases), this is a painless procedure that can be performed in an outpatient clinical setting. It is often referred to as a "CT" or "CAT" scan.

**contracture:** a capsule or shell of dense scar-like tissue that may form around a breast implant. See also capsule formation.

**core biopsy:** a type of biopsy where a needle is used to remove a small core of tissue for study

**core needle biopsy:** removal of tissue or fluid from a lump or cyst with a large needle and syringe.

**CT scan (CAT scan):** see computed tomography.

**Cyclophosphamide:** class of chemotherapy drugs that promotes cancer cell death.

**cyst:** a fluid-filled sac that is usually benign (non-cancerous). The fluid can be removed for analysis. (See needle aspiration). A cyst is an abnormal, closed sac-like structure within a tissue that contains a liquid, gaseous, or semisolid substance. A cyst can occur anywhere in the body and can vary in size. The outer, or capsular, portion of a cyst is termed the cyst wall.

**cytology:** the study or examination of cells by a cyto-pathologist using a microscope to determine whether they are cancerous or benign (non-cancerous).

**cytotoxic:** Toxic to cells; cell-killing.

D    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**DCIS:** ductal carcinoma in situ. A precancerous condition characterized by the clonal proliferation of malignant-looking cells in the lining of a breast duct without evidence of spread outside the duct to other tissues in the breast or outside the breast. DCIS is clearly the

precursor (forerunner) of invasive breast cancer. This is evident from the sharing of clonal chromosome changes by DCIS and adjacent invasive cancers. In other words, invasive breast cancer evolves from DCIS. Also called intraductal carcinoma.

**detection:** finding disease. Early detection means that the disease is found at an early stage, before it has grown large or spread to other sites. (Many forms of cancer can develop to an advanced stage without causing symptoms. Because of this, ovarian and pancreatic cancers, for example, are very difficult to detect). Women participate in early detection by performing monthly breast self-examination and getting medical attention for lumps or abnormalities in the breast, by having clinical breast exams by a health professional, and by having mammograms once they reach 40 years of age. Mammography is the principal way to detect breast cancer early. A mammogram can show a developing breast tumor before it can be felt by the woman herself or even by a highly skilled health care professional.

**diagnose:** doctors look at many things to find out if you have breast cancer. For example, they look at different physical signs, ask questions about your symptoms and family history, and look at test results.

**diagnosis:** Identifying a disease by its signs, symptoms, imaging procedures, and/or laboratory findings. In general, the earlier a diagnosis of cancer is made, the better the chance for long-term survival. The nature of a disease ; the identification of an illness; a conclusion or decision reached by diagnosis.

**diagnostic mammogram:** an x-ray of the breast used to diagnose unusual breast changes, such as a lump, pain, nipple thickening or discharge, or a change in breast size or shape. A diagnostic mammogram is also used to evaluate abnormalities detected on a screening mammogram.

**diagnostic mammography:** an x-ray examination of the breast in a woman who either has a breast complaint (for example, a breast lump found during self-exam or nipple discharge) or has had an abnormality found during screening mammography. Diagnostic mammography is more involved and time-consuming than screening mammography and is used to determine exact size and location of breast abnormalities and to image the surrounding tissue and lymph nodes. Typically, several additional views of the breast are imaged and interpreted during diagnostic mammography. See also mammography.

**diaphanography (also called transillumination):** an exam that involves shining a bright light through the breast to reveal features of the tissue inside. This technique is being studied, and its value in detecting breast cancer has not been proven.

**Diethylstilbestrol:** the earliest synthetic (man-made) form of the hormone estrogen .

**digital mammography:** digital mammography uses essentially the same mammography system as conventional mammography, but the system is equipped with a digital receptor and a computer instead of a film cassette. Digital mammography provides many benefits over standard mammography equipment, including faster image acquisition, shorter exam time,

easier image storage, physician manipulation of breast images for more accurate detection of breast cancer, and transmittal of images over phone lines or a network for remote consultation with other physicians. Currently, only one digital mammography system is FDA approved and is not yet widely available. Many physicians predict increased use of digital mammography in the future.

**dimpling:** a pucker or indentation of the skin; on the breast, it may be a sign of cancer.

**discharge:** the flow of fluid from part of the body, such as from the nose or vagina. The passing of an action potential, such as through a nerve or muscle fiber. The release of a patient from a course of care. The doctor may then dictate a discharge summary.

**discharge (nipple):** any fluid coming from the nipple. It may be clear, milky, blood, tan, gray, or green. White, yellow, or green nipple discharges are usually benign. Bloody, watery, red, pink, brown, or black nipple discharge may indicate malignancy. Nipple discharge should be evaluated by a physician.

**disease:** illness or sickness often characterized by typical patient problems (symptoms) and physical findings (signs). Disruption sequence: The events that occur when a fetus that is developing normally is subjected to a destructive agent such as the rubella (German measles) virus.

**dissection:** the process of cutting apart or separating tissue as, for example, in the study of anatomy or in the course of a surgical procedure.

**diuretic:** drugs that help the body get rid of excess water and salt.

**DNA (deoxyribonucleic acid):** the building blocks of the genetic code, located in the cell nucleus. DNA holds genetic information on cell growth, division, and function.

**Docetaxel:** brand name, Taxotere. Drug used to treat metastatic breast cancer in patients who have not responded well to standard chemotherapy. Docetaxel inhibits the division of breast cancer cells by acting on the cells' internal skeleton.

**double tier scarring:** term used to describe a standard scar that appears on the breast after TRAM flap breast reconstruction. See also TRAM flap.

**doubling time:** the time it takes for a cell to divide and double itself. The doubling time of breast cancer cells depends on many things, such as the type of tumor, the resistance of the individual's body, and the location in which it tries to grow. A single cell needs 30 doublings to reach noticeable size (1 cm)—a billion cells. Cancers vary in doubling time from 8 to 600 days, averaging 100 to 120 days. Thus, a cancer may be present for many years before it can be felt. (See also cell).

**doxorubicin:** included in a class of chemotherapy drugs (anthracyclines) used to inhibit or prevent the development and growth of cancer cells.

**duct:** a passage or a tube with well-defined walls suitable for the conveyance of air or liquids, as the bile duct and the pancreatic duct. A tube in the breast through which milk passes from the lobules to the nipple.

**duct ectasia:** widening of the ducts of the breast, often related to breast inflammation called periductal mastitis. Duct ectasia is a benign (not cancerous) condition. Symptoms of this condition are nipple discharge, swelling, retraction of the nipple, or a lump that can be felt.

**ductal carcinoma:** breast cancer that begins in the milk ducts of breasts. This is the most common type of breast cancer.

**ductal carcinoma in situ (DCIS):** a noninvasive, precancerous condition in which abnormal cells are found in the lining of a breast duct. The abnormal cells have not spread outside the duct to other tissues in the breast. Sometimes DCIS may become invasive cancer and spread to other tissues, although it is not known at this time how to predict which lesions will become invasive. This is a highly curable form of breast cancer that is treated with surgery or surgery plus radiation therapy. Also called intraductal carcinoma.

**ductogram:** see galactogram.

**dysplasia:** a group of cells that are abnormal in size, shape, appearance, and organization, but which are not yet cancerous.

E    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
     [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**early-stage breast cancer:** breast cancer that has not spread beyond the breast or the axillary lymph nodes (under the arms), usually stages 0, I, and some stage III.

**Electrical Impedance Imaging (EIS or T-Scan):** a diagnostic test that measures how electricity travels through tissue. Electrical impedance imaging has been approved for use in conjunction with mammography to investigate breast abnormalities. Also called Transscan or T-scan.

**Ellence:** generic name, Epirubicin. Drug used to treat early stage breast cancer after breast surgery in patients whose cancer has spread to the axillary lymph nodes.

**endocrine glands:** glands that release hormones into the bloodstream. The ovaries are one type of endocrine gland.

**endocrine therapy:** manipulation of hormones for therapeutic purposes. See also hormone therapy.

**environment:** the sum of the total of the elements, factors and conditions in the surroundings which may have an impact on the development, action or survival of an organism or group of

organisms.

**epidemiology:** the study of factors that have an impact on health and diseases by collecting and analyzing statistical data. In the field of cancer, epidemiologists are studying how many people have cancer; who gets specific types of cancer; and what factors (such as environment, job hazards, family patterns, and personal habits, such as smoking and diet) play a part in the development of cancer.

**epidermal:** pertaining to the epidermis, the outermost layer of the skin.

**Epirubicin:** brand name, Ellence. Drug used to treat early stage breast cancer after breast surgery in patients whose cancer has spread to the axillary lymph nodes.

**erythrocytes:** red blood cells that carry oxygen from the lungs to cells in all parts of the body. Erythrocytes also carry carbon dioxide from the cells back to the lungs.

**estrogen:** a female sex hormone produced by the ovaries that stimulates and maintains female sex characteristics. They are either natural or synthetic. Estrogens are used to treat menstrual and menopausal disorders and are also used as oral contraceptives. Estrogen deficiency can lead to osteoporosis. In breast cancer, estrogen may promote the growth of cancer cells. See estrogen receptor assay, estrogen replacement therapy.

**estrogen receptor assay:** growth of normal breast cells and some breast cancers are stimulated by estrogen. Estrogen receptors are molecules that function as cells' "welcome mat" for estrogen circulating in the blood. Breast cancer cells without these receptors (called estrogen receptor negative or ER-negative) and may be less likely to respond to hormonal therapy. ER-positive cancers are more likely to respond to hormonal therapy. The estrogen receptor assay is a laboratory test done on a piece of the cancer in order to see whether estrogen receptors are present. See also progesterone receptor assay.

**estrogen receptor test:** lab test used to determine if breast cancer relies on estrogen for growth. It is noted as estrogen receptor-positive or -negative.

**estrogen replacement therapy (ERT):** the use of exogenous estrogen (estrogen not produced by the body; estrogen from other sources) after the body has ceased to produce it because of natural or induced menopause. This type of hormone therapy is often prescribed to alleviate symptoms of menopause and has been shown to provide protective effects against heart disease and osteoporosis in post-menopausal women. Since estrogen nourishes some types of breast cancer, scientists are working on the question of whether estrogen replacement therapy increases breast cancer risk. There appears to be an emerging consensus that estrogen replacement therapy does not significantly increase the risk for breast cancer. This appears to be true for women who are on estrogen less than five years or who take less than 0.625 mg per day. (See also estrogen, menopause, osteoporosis). Some new drugs called selective estrogen receptor modulators (SERMs) are being studied. They seem to have many of the beneficial effects of estrogen replacement without increasing breast cancer risk. Recent studies suggest that some SERMs may actually reduce breast cancer risk. (See also estrogen, menopause,

osteoporosis).

**estrogen receptors (ER):** a special type of protein found on some cancer cells. Estrogen attaches to the receptor, and this can cause the cancer cells to grow

**etiology:** the cause of a disease. In cancer, there are probably many etiologies, although research is showing that both genetics and lifestyle are major factors in many cancers.

**Evista:** generic name, raloxifene. Drug used to prevent and treat osteoporosis. Evista is also being studied to determine whether it can safely and effectively prevent breast cancer in women at high risk for the disease since it is chemically similar to the drug tamoxifen.

**excisional:** pertaining to the act of excision, of removal by surgery. An excisional biopsy is one in which the lesion is removed by the biopsy.

**excisional biopsy:** a biopsy in which an entire biopsy in which an entire lesion, is removed. An excisional biopsy is in contrast to an incisional biopsy in which only a sample of tissue is cut into (incised) and removed.

**Exemestane:** brand name, Aromasin. Drug used to treat metastatic breast cancer in post-menopausal women. Works by binding to the body's aromatase enzyme, an enzyme responsible for producing the hormone, estrogen.

**external radiation therapy:** radiation therapy using a machine located outside the body to aim high-energy rays at a tumor.

F     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**false negative:** a result that appears negative but fails to reveal a situation.

**false positive:** a result that is erroneously positive when a situation is normal.

**fascia:** a sheet or thin band of fibrous tissue that covers muscles and various organs of the body.

**fat necrosis:** a benign breast condition in which painless, round, firm lumps caused by damaged and disintegrating fatty tissues form in the breast tissue, often in response to a bruise or blow to the breast. The death of fat cells, usually following injury. Fat necrosis is a benign (non-cancerous) condition, but it can cause a breast lump, pulling of the skin, or skin changes that can be confused with breast cancer.

**Fenretinide:** a non-toxic drug related to Vitamin A. Researchers are investigating whether fenretinide may reduce the risk of breast cancer recurrence in pre-menopausal women.

**fibroadenoma:** a solid, smooth, benign lump that is commonly found in women in their late teens and early twenties; commonly found in the breast. Breast tumor composed of fibrous tissue and glandular tissue.

**fibrocystic change:** a term that describes certain benign (non-cancerous) changes in the breast; also called fibrocystic disease. Symptoms of this condition include cysts (accumulated packets of fluid), fibrosis (formation of scar-like connective tissue), lumpiness, areas of thickening, tenderness, or breast pain. Because these signs sometimes mimic breast cancer, diagnostic mammography or microscopic examination of breast tissue may be needed to show that there is no cancer.

**fibrosis:** formation of fibrous (scar-like) tissue. This can occur anywhere in the body.

**Filgrastim:** a drug used to treat neutropenic patients (those with a decreased white blood cell count). Brand name, Neupogen.

**fine-needle aspiration:** a type of biopsy where a needle is used to remove a few cells to be examined under a microscope.

**first-line:** first therapy for the condition being treated.

**flap:** term used to describe the transfer of skin and soft tissue from one part of the body to help reconstruct another part. In most instances the flap is attached to the body by its blood supply. The place where the flap is taken from (harvested) is called the donor site. The place on the body where the flap is transferred to is called the recipient site (for example, the breast).

**flap donor sites:** the location on the body that a flap of tissue is taken from for breast reconstruction. For example, in a TRAM flap procedure, tissue is taken from the abdomen and transferred to the breast (the recipient site) to reconstruct the breast after a mastectomy.

**flow cytometry:** a test of tumor tissue to see how fast the tumor cells are reproducing and whether the tumor cells contain a normal or abnormal amount of DNA. This test is used to help predict how aggressive a cancer is likely to be. See also ploidy, DNA, S-phase fraction.

**fluorescence in-situ hybridization(FISH):** a method of testing tissue samples to determine if there is a gene abnormality in the cells, including the overexpression of HER2.

**follow-up care:** after primary breast cancer treatment, patients are usually monitored with mammograms and other tests.

**"free" flap:** term used to describe a breast reconstructive procedure that is completely detached from its donor site and transferred to the recipient site by reattaching the blood vessels of the flap (tissue) to vessels of the recipient site. For example, in a TRAM flap procedure, tissue is taken from the abdomen (donor site) and transferred to the breast (recipient site) to reconstruct the breast after a mastectomy. Also called microvascular flap.

**free radicals:** toxic atoms produced by chemical reactions within a cell.

**frozen section:** microscopic examination of a specimen of tissue that has been quick-frozen. This method gives a quick diagnosis, sometimes while the surgeon is waiting to complete a procedure. The diagnosis is confirmed in a few days by a more detailed study called a permanent section. (See also permanent section).

G    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**galactocele:** a clogged milk duct; a cyst filled with milk. It may occur in the breast during breast-feeding.

**galactogram:** a special type of contrast enhanced mammography used for imaging the breast ducts. Galactography can aid in diagnosing the cause of an abnormal nipple discharge and is valuable in diagnosing intraductal papillomas (wart-like, non-cancerous tumors with branchings or stalks that have grown inside the breast duct).

**gene:** a segment of DNA that contains information on hereditary characteristics such as hair color, eye color, and height as well as susceptibility to certain diseases. Women who have BRCA1 or BRCA2 gene mutations (defects) have an inherited (genetic) tendency to develop breast cancer. If a woman has one of these genes, she has up to an 85% risk of developing breast cancer in her lifetime.

**gene alteration:** any change or difference in the usual makeup or function of a gene, including changes that result in too much or not enough of a protein being produced, or alterations in the property of the protein produced.

**gene amplification:** the presence of a greater than normal number of copies of a gene in a cell.

**gene testing:** testing a sample of blood (or another fluid or tissue) for evidence of a gene. The evidence can be biochemical, chromosomal, or genetic. The aim is to learn whether a gene for a disease is present or absent.

**genetic:** having to do with genes and genetic information.

**genetic counseling:** an educational counseling process for individuals and families who have a genetic disease or who are at risk for such a disease. Genetic counseling is designed to provide patients and their families with information about their condition and help them make informed decisions.

**genetic testing:** tests done for clinical genetic purposes. Genetic tests may be done for diverse purposes pertaining to clinical genetics, including the diagnosis of genetic disease in children and adults; the identification of future disease risks; the prediction of drug responses; and the

detection of risks of disease to future children.

**genetics:** the scientific study of heredity . Genetics pertains to humans and all other organisms.

**glands:** organs that produce and release substances used locally or elsewhere in the body.

**Goserelin Acetate:** brand name, Zoladex. Drug used to treat metastatic breast and prostate cancers. Goserelin acetate works by blocking estrogen from breast cancer cells (and blocking testosterone in men), thereby starving these cells.

**grade:** the grade of a breast cancer reflects how abnormal it looks under the microscope. There are several grading systems for breast cancer, but all divide cancers into those with the greatest abnormality (grade 3 or poorly differentiated), the least abnormality (grade 1 or well differentiated) and intermediate features (grade 2 or moderately differentiated). Grading is done by the pathologist who examines the biopsy specimen. It is important because higher grade cancers tend to grow and spread more quickly and have a worse prognosis. A cancer's histologic grade is based on features of individual cells as well as how the cells are arranged together.

**granular cell:** usually found in the mouth or skin but may rarely be detected in the breast. Most granular cell tumors of the breast are identified as movable, firm lumps, measuring between 0.5 inch and 1.0 inch in diameter.

**graphic stress telethermometry (GST):** a method of measuring surface heat from a distance. Some have used this method, plus computer analysis of heat patterns in the breast, to measure breast cancer risk. This is not a reliable method and is not in standard practice.

**gross description/"The Gross":** characteristics of a breast biopsy sample that the pathologist measured and felt when examining the tissue with the naked eye (without a microscope).

**gynecologist:** a physician who specializes in women's health.

**gynecologist oncologist:** a physician who specializes in cancers of a woman's reproductive organs.

H    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**Halsted radical mastectomy:** See mastectomy.

**hematologist:** a physician who specializes in diagnosis and treatment of conditions which occur in the blood and blood-forming tissues, including bone marrow.

**hematoma:** a collection of blood outside a blood vessel caused by a leak or injury. A swelling formed of blood. Occasionally occurs at the site of surgery, such as in a biopsy cavity after a

lumpectomy.

Hematomas that occur in the breast after injury or after surgery may feel like a lump. As with other breast lumps, it's important to have this checked to be sure that it is indeed a hematoma and not a symptom of a more serious problem.

**HER2 gene:** a gene that directs the cell to produce HER2 growth factor receptors on the cell's surface which can control the growth and division of the cell.

**HER2 or HER-2/neu:** human epidermal growth factor receptor 2; a protein receptor found on the surface of cells. HER2 is a key component in regulating cell growth. When the HER2 gene is altered, extra HER2 receptors may be produced. This over-expression of HER2 causes increased cell growth and reproduction, often resulting in more aggressive tumor cells. Receptor noted on breast cancer cells that have a worse prognosis, but is treated with a drug called Herceptin . Advanced breast cancer patients who over-express the HER2 gene may be treated with the drug, Herceptin. See also Herceptin.

**HER2-negative:** indicates that a biopsy revealed a normal level of the HER2 gene or protein.

**HER2neu receptor - Hormonal therapy:** the use of hormones to treat cancer patients by removing, blocking, or adding to the effects of a hormone on an organ or part of the body.

**HER2-positive:** indicates that a biopsy revealed abnormally high levels of the HER2 gene or protein

**HER2 protein (receptor):** also called the HER2 receptor; a cell-surface protein that helps control normal cell growth, cell division, and cell survival

**HER2 protein overexpression:** the excess production of HER2 receptors that results from a change in the HER2 gene in cancer cells; thought to cause cancer cells to grow and divide more quickly.

**HER2 receptor:** Human Epidermal Growth Factor Receptor 2, one of the many proteins on a cell's surface that signals the cell to divide and helps control normal cell growth, cell division, and cell survival.

**Herceptin (generic name, Trastuzumab):** a drug used to treat advanced breast cancer patients whose tumors over-express the HER2 growth factor. See also HER2 or HER-2/neu.

**hereditary cancer syndrome:** conditions associated with cancers that occur in multiple family members, because of an inherited, mutated gene.

**high risk:** having a higher risk of developing cancer, compared with the general population. See also risk factor.

**histologic grading:** the pathologist will assign a histologic grade to a breast tumor upon examination that helps to identify the type of tumor present and the patient's prognosis. See

also grade.

**histologic section:** the preparation of tissue specimens for microscopic examination.

**histology:** The anatomical study of the microscopic structure of tissues, including cellular structure and function. See also histologic sectioning and histologic grading.

**hormone:** a chemical substance released into the body by the endocrine glands, such as the thyroid, adrenal, or ovaries. The substance travels through the bloodstream and controls the actions of certain cells of organs in the body. For example, prolactin, which is produced in the pituitary gland, begins and sustains the production of milk in the breast after childbirth.

**hormone receptor assay:** a test to see whether a breast tumor is likely to be affected by hormones or if it can be treated with hormones. See also estrogen receptor assay, progesterone receptor assay.

**hormone receptor test:** a test used to measure the amount of certain proteins, called hormone receptors, in breast cancer tissue. Hormones can attach to these proteins. A high level of hormone receptors means hormones probably help the cancer grow.

**hormone replacement therapy (HRT):** the use of estrogen and/or progesterone from an outside source after the body has stopped producing these hormones. See estrogen replacement therapy for a more detailed explanation.

**hormone therapy:** treatment with hormonal drugs that interfere with hormone production or hormone action, or surgical removal of hormone-producing glands to kill cancer cells or show their growth. The most common hormonal therapy for breast cancer is the drug tamoxifen. Other hormonal therapies include megestrol, aminoglutethimide, androgens and surgical removal of the ovaries (oophorectomy). See also tamoxifen.

**hot flashes:** a sudden wave of mild or intense body heat caused by rushes of hormonal changes resulting from decreased levels of estrogen . Hot flashes can occur at any time and may last from a few seconds to a half-hour. They are due to blood vessel opening and constricting and a symptom of menopause .

**hyperplasia:** an abnormal increase in the number of cells in a specific area, such as the lining of the breast ducts or the lobules. By itself, hyperplasia is not cancerous, but when the proliferation (rapid growth) is marked and/or the cells are atypical (unlike normal cells), the risk of cancer developing is greater.

**hypertrophic scarring:** this type of scar can occur after a surgical incision. A very severe form of a scar, it actually grows into normal uninvolved skin and does not resolve over a period of time. Also called keloid.

**hysterectomy:** a surgical operation to remove the uterus and, sometimes, the cervix . Removal of the entire uterus and the cervix is referred to as a total hysterectomy . Removal of the body of

the uterus without removing the cervix is referred to as a subtotal hysterectomy . Removal of the ovaries (oophorectomy) may be done at the same time.

I     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**imaging:** any method used to produce a picture of internal body structures. Some imaging methods used to detect cancer are x-rays (a breast x-ray is called a mammogram), magnetic resonance (MR) imaging, scintigraphy, computed tomography (CT) imaging, and ultrasonography. See also mammogram, bone scan, computed tomography, magnetic resonance imaging, ultrasonography.

**immune system:** the complex system by which the body resists infection by microbes (such as bacteria or viruses) and rejects transplanted tissues or organs. The immune system may also help the body fight some cancers. See also antibody, antigen, lymph nodes.

**immunocytochemistry or immunohistochemistry:** a laboratory test that uses antibodies to detect specific chemical antigens in cells or tissue samples viewed under a microscope. This procedure can be used to help detect and classify cancer cells. It is also one of the methods used for estrogen receptor assays and progesterone receptor assays. See also monoclonal antibodies.

**immunohistochemistry (IHC):** a method that uses antibodies to identify, locate, and stain specific protein molecules in tissue sections (using a microscope), such as overexpression of HER2 lymph nodes.

**immunology:** study of how the body resists infection and certain other diseases. Knowledge gained in this field is important to cancer treatments based on the principles of immunology. See also immunotherapy.

**immunosuppression:** a state in which the ability of the body's immune system to respond is decreased. This condition may be present at birth, may be caused by certain infections (such as human immunodeficiency virus or HIV), or by certain cancer therapies, such as cytotoxic (cancer-cell killing) drugs, radiation, and bone marrow transplant action.

**immunotherapy:** treatments that promote or support the body's immune system response to a disease, such as cancer.

**implant:** to embed; to set in firmly; that which is embedded, for example: breast implants ; A silicone gel-filled or saline-filled sac inserted above or below the chest muscles to restore breast shape

**incisional biopsy:** a biopsy in which only a sample of the suspicious tissue is cut into (incised) and removed for purposes of diagnosis. An incisional biopsy is in contrast to an excisional biopsy in which an entire lesion, usually a tumor, is removed.

**infection:** the growth of a parasitic organism within the body. (A parasitic organism is one that lives on or in another organism and draws its nourishment there from.) A person with an infection has another organism (a "germ") growing within him, drawing its nourishment from the person.

**infiltrating cancer:** a cancer that has spread from its site of origin into surrounding tissue.

**infiltrating ductal carcinoma (IDC):** cancer beginning in the milk ducts of the breast and penetrating the wall of the duct, invading the fatty tissue of the breast and possibly other regions of the body. IDC is the most common type of breast cancer, accounting for 80% of breast cancer diagnoses. Also called invasive ductal carcinoma.

**infiltrating lobular carcinoma (ILC):** cancer beginning in the milk glands (lobules) of the breast, but often spreading to other regions of the body. ILC accounts for 10% to 15% of breast cancers. Also called invasive lobular carcinoma.

**inflammation:** the response of the tissues of the body to irritation or injury. The signs of inflammation are redness, heat, swelling, and pain.

**inflammatory carcinoma:** the appearance of inflamed breasts (red and warm) with dimples and/or ridges caused by the infiltration of tumor cells into the lymphatics.

**infraclavicular nodes:** lymph nodes located beneath the clavicle (collar bone).

**inframammary fold:** the lower breast fold that attaches the lowest portion of the breast to the rib cage.

**infusion:** the slow intravenous (through the vein) delivery of drugs or fluids.

**injection:** the use of a syringe and needle to push fluids or drugs into the body. Also called shot.

**in situ:** literally meaning, "in place." The term, in situ, applies to cancer that is within the original tissue and has not yet broken through any boundaries between tissues. See also ductal carcinoma in situ, lobular carcinoma in situ.

**interferon:** a protein produced by cells, interferon helps regulate the body's immune system, boosting activity when a threat, such as a virus, is detected. Scientists have learned that interferon helps fight against cancer, so it is used for immunotherapy of some types of cancer.

**internal mammary nodes:** lymph nodes beneath the breast bone on each side. Some breast cancers may spread to these nodes.

**intraductal carcinoma:** also called ductal carcinoma in situ. See DCIS.

**intravenous infusion:** introduction of a solution, such as various cancer therapies, into the

body through a vein using a small catheter or a central line.

**intraductal carcinoma:** see ductal carcinoma in situ.

**intraductal papilloma:** small, finger-like, polyp-like, noncancerous growths in the breast ducts that may cause a bloody nipple discharge. These are most often found in women 45 to 50 years of age. When many papillomas exist, breast cancer risk is slightly increased.

**intravenous (IV):** a method of supplying fluids and medications, using a needle inserted in a vein.

**invasive cancer:** cancer that has spread beyond the area it originally developed in, to involve adjacent tissues. For example, invasive breast cancers develop in milk glands (lobules) or milk passages (ducts) and spread to the adjacent fatty breast tissue. Some invasive cancers spread to distant areas of the body (metastasize), but others do not. Also called infiltrating cancer. See also invasive ductal carcinoma, invasive lobular carcinoma.

**invasive ductal carcinoma:** a cancer that originates in the milk passages (ducts) of the breast and then breaks through the duct wall, where it invades the fatty tissue of the breast. When it reaches this point, it has the potential to spread (metastasize) elsewhere in the breast, as well as to other parts of the body through the bloodstream and lymphatic system. Invasive ductal carcinoma is the most common type of breast cancer, accounting for about 80% of breast malignancies. Also known as infiltrating ductal carcinoma.

**invasive lobular carcinoma:** a cancer that arises in the milk-producing glands (lobules) of the breast and then breaks through the lobule walls to involve the adjacent fatty tissue. From this site, it may then spread elsewhere in the breast. About 15% of invasive breast cancers are invasive lobular carcinomas. It is often difficult to detect by physical examination or even by mammography. Also called infiltrating lobular carcinoma.

**inverted nipple:** a condition in which the nipple is tucked into the areola (pigmented region surrounding the areola).

**involved margins:** term used to describe breast cancer that extends beyond the surgical margin of removal. This condition indicates that additional cancer is still present in the breast.

J     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

There are currently no terms in the "J" section of the glossary.

K     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**keloid:** this type of scar can occur after a surgical incision. A very severe form of a scar, it actually grows into normal uninvolved skin and does not resolve over a period of time. Also called hypertrophic scarring.

L    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**lactation:** production of milk in the breast.

**large core biopsy:** the surgical removal of a substantial sample of breast tissue for pathological examination. Large core biopsy usually removes more breast tissue than vacuum-assisted biopsy but less than open surgical biopsy. The Advanced Breast Biopsy Instrumentation (ABBI) system made by U.S. Surgical is a large core biopsy procedure.

**latissimus dorsi flap procedure:** a method of breast reconstruction that uses the long flat muscle of the back, by rotating it to the chest area.

**lesion:** a wound, injury, or other damage to a body part. Breast tumors are often referred to as lesions.

**leucopenia:** an abnormally low number of white blood cells in the blood; white blood cells help to fight infection

**Leukine:** Generic name, Sargramostim. A drug used to treat neutropenic patients (those with a decreased white blood cell count).

**leukocytes:** white blood cells that protect the body against infections and other diseases.

**leucopenia:** a decreased white blood cell count .

**LCIS:** see lobular carcinoma in situ.

**limited breast surgery:** also called lumpectomy, segmental excision, or tyelectomy. It removes the breast cancer and a small amount of tissue around the cancer, but preserves most of the breast. It is almost always combined with axillary lymph node removal and is followed by radiation therapy. See also lumpectomy.

**linear accelerator:** a machine used in radiotherapy to treat cancer. A linear accelerator generates gamma rays and electron beams which are focused on the cancerous tissue.

**lobe:** a group of lobules (glands) in the breast. The breast contains 15 to 24 lobes. Part of an organ that appears to be separate in some way from the rest. A lobe may be demarcated from the rest of the organ by a fissure (crack), sulcus (groove), connective tissue or simply by its shape. For example, there are the frontal, parietal, temporal, and occipital lobes of the brain.

**lobular carcinoma:** cancer that begins in the lobules of the breast. If the abnormal cells are only in the lobules, then the condition is called lobular carcinoma in situ (see below). If the cancer spreads outside the lobules, it is invasive lobular carcinoma.

**lobular carcinoma in situ (LCIS):** a condition in which abnormal cells are found only in the lobules of the breast. LCIS seldom becomes invasive cancer, but having lobular carcinoma in situ in one breast increases the risk of developing breast cancer in either breast. A very early type of breast cancer that develops within the milk-producing glands (lobules) of the breast and does not penetrate through the wall of the lobules. Though technically a Stage 0 breast cancer (the earliest stage, many physicians do not classify LCIS as a cancer. However, LCIS places a woman at increased risk of developing an invasive breast cancer later in life, which can occur in either breast.

**lobule:** milk-producing glands in the breast; a little lobe. Smaller lobes located inside the main lobes. At the end of each lobule are tiny "bulbs" that produce milk.

**local therapy:** treatment that affects only a tumor and the area close to it.

**local treatment:** treatment that affects the tumor and the area close to it.

**localized breast cancer:** A cancer that starts in the breast and is confined to the breast.

**lump:** any kind of mass in the breast or elsewhere in the body. Also called nodule.

**lumpectomy:** the surgical removal of a small tumor (a lump) which may or may not be benign (or malignant). Lumpectomy has come to refer specially to the removal of a lump from the breast. (See also breast conservation therapy, two-step procedure).

**lymph:** an almost colorless fluid that travels through vessels called lymphatics in the lymphatic system and carries cells that help fight infection and disease. Contains cells known as lymphocytes which are important in fighting infections and may also have a role in fighting cancer.

**lymph node:** a small rounded or bean-shaped mass of lymphatic tissue that helps the body's immune system. Lymph nodes, or lymph glands, are found in several places in the body, like the neck, the armpit (axilla), and the groin. Lymph nodes are very important for your body's immune system because they make special cells that trap bad cells, like bacteria or cancer cells, that are traveling throughout the body. Also sometimes referred to as lymph glands, lymph nodes are small rounded or bean-shaped masses of lymphatic tissue surrounded by a capsule of connective tissue. Lymph nodes are located in many places in the lymphatic system throughout the body. Lymph nodes filter the lymphatic fluid and store special cells that can trap cancer cells or bacteria that are traveling through the body in the lymph fluid. The lymph nodes are critical for the body's immune response and are principal sites where many immune reactions are initiated. During a physical examination, doctors often look for swollen lymph nodes in areas where lymph nodes are abundant, including the neck, around the collarbone, the armpit (axilla), and the groin.

**lymph node removal:** surgery to remove some or all of the lymph nodes. See axillary node dissection, sentinel node biopsy.

**lymphatics:** small thin channels similar to blood vessels that do not carry blood, but collect and carry tissue fluid (called lymph) from the body to ultimately drain back into the blood stream.

**lymphatic system:** the tissues and organs, including the bone marrow, spleen, thymus, and lymph nodes, that produce and store cells that fight infection and disease. The channels that carry lymph are also part of this system. The entire lymphatic system is an important part of the body's immune system. Invasive cancers sometimes penetrate the lymphatic vessels and metastasize (spread) to lymph nodes.

**lymphedema:** a common chronic, debilitating condition in which excess fluid called lymph collects in tissues and causes swelling ( edema ) in them. An accumulation of lymph fluid in the arm, hand, or breast that may develop when lymphatic vessels or nodes have been removed or blocked by surgery, or after radiation therapy. It can appear immediately after treatment or many years later. Lymphedema develops when lymph vessels are missing, impaired, damaged, or removed. This condition can be chronic and irreversible. This condition is usually persistent.

**lymphoma:** a cancer of lymphocytes (a type of white blood cell) that usually develops in the lymph nodes. About 5% of cancers are lymphomas. The two main types of lymphomas are Hodgkin's disease and non-Hodgkin's lymphomas. Lymphoma can occur as a result of some types of cancer therapies.

M     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**macrocalcifications:** coarse calcium deposits in the breasts, larger than microcalcifications. Macrocalcifications are associated with benign (non-cancerous) conditions and do not typically require a breast biopsy. Macrocalcifications are found in approximately 50% of women over the age of 50.

**magnetic resonance (MR or MRI) imaging:** A method of obtaining cross-sectional images of the inside of the body. Instead of using x-rays, MRI uses a powerful magnet and transmits radio waves through the body; the images appear on a computer screen as well as on film. Like x-rays, the procedure is physically painless, but some people find it psychologically uncomfortable to spend 30 minutes or more in the small core of the MRI machine. Also called nuclear magnetic resonance (NMR).

**magnification mammography views:** uses a small magnification table to bring the breast closer to the x-ray source and further away from the film plate. This allows the acquisition of "zoomed in" images (2 times magnification) of the region of interest. Magnification views provide a clearer assessment of the borders and the tissue structures of a suspicious breast area or a mass and are often used to evaluate microcalcifications.

**malignancy:** term used to describe a mass of cancer cells. Malignant tumors may invade surrounding tissues or spread (metastasize) to distant areas of the body. See cancer.

**malignant:** cancerous ; in regard to a tumor, having the properties of a malignancy that can invade and destroy nearby tissue and that may spread (metastasize) to other parts of the body.

**mammastatin:** a protein that is being studied in connection with breast cancer prediction and treatment. Mammastatin is thought to be a naturally occurring protein produced by breast cancer cells. The protein was first identified in 1986 and has been determined in preliminary research to be lacking in the majority of breast cancer patients and healthy women who have a family history of breast cancer.

**mammogram:** a low-dose x-ray with the breast in a device that compresses and flattens it. There are two basic mammogram tests -- screening mammograms and diagnostic mammograms. Used to screen for or investigate breast abnormalities and breast cancer, particularly those which are too small to be felt by physical examination. Mammograms are made using a special x-ray machine designed specifically for this purpose. Screening mammography is used for early detection of breast cancer in women without any breast symptoms. Diagnostic mammography is used to help characterize suspicious breast masses or determine the cause of other breast symptoms.

**mammoplasty:** plastic surgery to reconstruct the breast or to change the shape, size, or position of the breast. Reduction mammoplasty reduces the size of the breast(s). Augmentation mammoplasty enlarges the size of the breast(s), usually with implants.

**margin:** the normal tissues around a tumor

**mass:** Any group of cells clustered together more densely than the surrounding breast tissue. Masses can be palpable (able to be felt) or nonpalpable (unable to be felt). Masses can be benign or malignant.

**mastalgia:** pain in the breast that is generally classified as either cyclical (associated with menstrual periods) or noncyclical. Cyclic or non-cyclic pain in the breast or in the axilla (underarm) region of the body. Approximately 15% of women with breast pain require treatment. Breast pain is not usually (but can be) associated with breast cancer.

**mastectomy:** a general term for removal of the breast , usually to remove cancerous tissue. The operation can be done in a hospital or in an outpatient clinic, depending on how extensive it needs to be. It takes from two to three hours, with three to five weeks for full recovery. Drainage shunts are left in the surgical incision for a few days after the operation; these are removed in three to five days if the area is healing normally. After the mastectomy, reconstructive surgery may be performed to restore a more normal appearance. Many patients choose to avoid reconstructive surgery, and wear special undergarments instead. In cases of non- metastatic breast cancer , a lumpectomy, radiation, chemotherapy , or a combination of these treatments may prove a viable alternative to mastectomy. If a lumpectomy is chosen, the surgeon may remove some lymph node tissue from under the arms to make sure cancer has not spread.

Extended radical mastectomy removes the breast, skin, nipple, areola, chest muscles (pectoral major and minor), and all axillary and internal mammary lymph nodes on the same side. Halsted radical mastectomy removes the breast, skin, nipple, areola, both pectoral muscles, and all axillary lymph nodes on the same side. Modified radical mastectomy removes the breast, skin, nipple, areola, and most of the axillary lymph nodes on the same side, leaving the chest muscles intact. Partial mastectomy removes less than the whole breast, taking only part of the breast in which the cancer occurs and a margin of healthy breast tissue surrounding the tumor. Subcutaneous mastectomy is surgery to remove internal breast tissue. The nipple and skin are left intact. Prophylactic mastectomy is a mastectomy done before any evidence of cancer can be found, for the purpose of preventing cancer. This procedure is sometimes performed on women at very high risk of breast cancer. Quadrantectomy is a partial mastectomy in which the quarter of the breast that contains a tumor is removed. Segmental mastectomy is a partial mastectomy. Simple mastectomy or total mastectomy removes only the breast and areola.

**mastitis:** an inflammation of the breast tissue.

**mastopexy:** surgery to lift sagging breasts. The procedure is not permanent.

**mechanism of action:** the method by which a drug or therapy affects the body in order to produce a specific result.

**medical oncologist:** See oncologist.

**medullary carcinoma:** a special type of infiltrating ductal carcinoma with especially sharp boundaries between tumor tissue and normal tissue. About 5% of breast cancers are medullary carcinomas. The outlook (prognosis) for this kind of cancer is considered to be better than average.

**menarche:** a woman's first menstrual period. Early menarche (before age 12) is a risk factor for breast cancer, possibly because the earlier a woman's periods begin, the longer her exposure to estrogen.

**menopause :** the time in a woman's life when menstrual periods permanently stop; it is also called the "change of life." Menopause is the opposite of the menarche. The level of hormones produced by the ovaries decreases. Menopause usually occurs in the late 40s or early 50s, but it can also be caused by surgical removal of both ovaries (oophorectomy), or by some chemotherapies that destroy ovarian function. (See also estrogen replacement therapy).

**metachronous:** at different times. See also bilateral.

**metastases:** when cancer spreads to another location in the body. For example, if breast cancer cells spread to the bone, this is called a "breast cancer metastasis."

**metastasis:** the process by which cancer spreads from the place at which it first arose as a primary tumor to distant locations in the body. The cancer resulting from the spread of the

primary tumor. 25% of metastatic breast cancer spreads first to the bone.

**metastasize:** the spread from one part of the body to another. When cancer cells metastasize and cause secondary tumors, the cells in the metastatic tumor are like those in the original cancer.

**metastatic breast cancer:** breast cancer that has spread to other sites in the body; also referred to as invasive or infiltrating. Cancer cells that have spread past the breast and the axillary lymph nodes to distant regions of the body (such as the bone, liver, lung, or brain).

**microcalcifications:** Tiny deposits of calcium that cannot be felt but can be detected on a mammogram. A cluster of these small specks of calcium may indicate that an early cancer is present.

**micrometastases:** the spread of cancer cells in groups so small that they can only be seen under a microscope.

**microscopic:** so small it cannot be seen without the aid of microscope. As opposed to macroscopic (large enough to be seen with naked eye). A tiny tumor is microscopic while a big tumor is macroscopic

**microvascular flap:** a surgical technique that reattaches the small vessels of the flap to the small recipient site vessels. See also "free" flap.

**monoclonal:** pertaining to a single clone of cells, a single cell and the progeny of that cell. As opposed to polyclonal.

**modified radical mastectomy:** the removal of the entire breast (including the nipple, the areola, and the overlying skin), some of the lymph nodes under the arm (also called the axillary lymph glands), and the lining over the chest muscles. In some cases, part of the chest wall muscles is also removed.

**monoclonal antibody:** an antibody produced in a laboratory by making multiple copies of a single cell; designed to recognize a specific protein on certain cells and signal the body's immune system to destroy the cell. Monoclonal antibodies can be made in large amounts in the laboratory and are a cornerstone of immunology. The term "monoclonal" pertains to a single clone of cells, a single cell and the progeny of that cell. Antibodies manufactured in the laboratory and designed to seek out as targets specific substances recognized by the immune system (antigens). Monoclonal antibodies which have been attached to chemotherapy drugs or radioactive substances are being studied for their potential to seek out antigens unique to cancer cells and deliver these treatments directly to the cancer, thus killing the cancer cell and not harming healthy tissue. Monoclonal antibodies are often used in immunocytochemistry to help detect and classify cancer cells. Other studies are being done to see if radioactive atoms attached to monoclonal antibodies can be used in imaging tests to detect and locate small groups of cancer cells. Monomorphic: Of the same shape. Monomorphic often describes microcalcifications that are uniform in shape and density (and usually non-cancerous).

**mucinous carcinoma:** a tumor that is sticky because of a large amount of mucin released by its cells. Mucin is a carbohydrate that is the main component of mucus.

**multicentric breast cancer:** breast cancer occurring in multiple areas of a breast.

**multiform:** having an irregular shape or various shapes. Term often used to describe microcalcifications, which can indicate ductal carcinoma in situ (DCIS), an early stage breast cancer.

**myelosuppressive chemotherapy:** chemotherapy that can suppress the production of blood cells by your bone marrow

**myocutaneous flap:** a flap of tissue that consists of skin, fatty and muscle tissue from a place in the body (such as the abdomen) that is used to reconstruct the breast.

N    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**National Cancer Institute:** the US government agency for cancer research and information.

**natural killer cells:** immune system cells that destroy foreign bodies or abnormal cells that are marked with antibodies

**natural menopause :** natural menopause occurs when the ovaries naturally decrease their production of the sex hormones estrogen and progesterone; there are no menstrual periods for 12 consecutive months; and no other biological or physiological cause can account for this.

**necrosis:** term used to describe the death of cellular tissue. Necrosis within a cancerous tumor may indicate that the tumor is growing so rapidly that blood vessels are not able to multiply fast enough to nourish some of the cancer cells. Necrosis usually indicates that the tumor is very aggressive and can spread quickly. Fat necrosis is a benign (non-cancerous) breast condition that may occur when fatty breast tissue swells or becomes tender spontaneously or as the result of an injury to the breast.

**needle aspiration:** a type of needle biopsy. Removal of fluid from a cyst or cells from a tumor. In this procedure, a needle and syringe (like those used to give injections) is used to pierce the skin, reach the cyst or tumor, and with suction, draw up (aspirate) specimens for biopsy analysis. If the needle is thin, the procedure is called a fine needle aspiration or FNA. See also needle biopsy.

**needle biopsy:** removal of fluid, cells, or tissue with a needle for examination under a microscope. There are two types: fine needle aspiration (also called FNA or needle aspiration) and core biopsy. FNA uses a thin needle and syringe (like those used to give injections) to pierce the skin and draw up (aspirate) fluid or small tissue fragments from a tumor. A core needle biopsy uses a thicker needle to remove a cylindrical sample of tissue from a tumor.

**needle localization:** also called wire localization. A procedure used to guide a surgical breast biopsy when the breast lump is difficult to locate or in areas that look suspicious on the x-ray (mammogram) but do not have a distinct lump. Mammogram or ultrasound images are used to guide the needle to the suspicious area of the breast. The radiologist typically replaces the needle with a wire and sends the patient to the surgeon with only a wire in place. The surgeon then uses the path of the wire as a guide to locate the abnormal area to be removed. Needle localization is usually used when there is no palpable (able to be felt) lump (i.e., a finding found only or most convincingly on an imaging study such as a mammogram or ultrasound).

**neoadjuvant therapy:** therapy with anticancer drugs or radiation given before surgery in order to shrink a tumor. Treatment such as chemotherapy, radiation therapy, or hormone therapy which is given before the primary treatment.

**neoplasm:** an abnormal growth (tumor) that starts from a single altered cell, a neoplasm may be benign (non-cancerous) or malignant (cancerous). Cancer is a malignant neoplasm.

**Neupogen:** generic name, Filgrastim. A drug used to treat neutropenic patients (those with a decreased white blood cell count).

**neutropenia:** a decreased number of a specific kind of white blood cell, known as neutrophils, that help fight infection. An abnormal decrease in white blood cells most often resulting from a viral infection or exposure to certain drugs or chemicals. Neutropenia may be a side effect of chemotherapy.

**nipple:** the pigmented projection on the surface of the breast. Ducts that conduct milk from the mammary glands to the surface of the breast exit through the nipple. The surrounding flat area of pigmentation is the areola. The nipple consists mainly of skin and ductal breast tissue.

**nipple confusion:** A fairly common condition in which the baby becomes "confused" between the mother's nipple and an artificial nipple of a bottle. Babies with nipple confusion will not latch on to the mother's nipple and become fussy when a mother tries to breast-feed.

**nipple discharge:** any fluid coming from the nipple. It may be clear, milky, bloody, tan, gray, or green.

See: Breast discharge

**nodal status:** indicates whether a breast cancer has spread (node-positive) or has not spread (node-negative) to lymph nodes in the armpit (axillary nodes). The number and site of positive axillary nodes can help predict the risk of cancer recurrence.

**node:** literally a knot, a node is a collection of tissue. For example a lymph node, is a collection of lymphoid tissue. A nodule is a small node, a little collection of tissue.

**node dissection:** lymph nodes in the armpit are removed and examined to find out if cancer has spread

**nodule:** a small, solid lump that can be located by touch. Also called mass or nodule.

**Nolvadex:** Trade name for Tamoxifen; an antiestrogen drug commonly used in breast cancer therapy. (See also antiestrogen, tamoxifen, hormonal therapy).

**noncancerous:** benign; no cancer is present; not malignant.

**noninvasive breast cancer:** cancer cells that are confined to the breast ducts and do not invade surrounding fatty and connective tissues of the breast. Ductal carcinoma in situ (DCIS) is the most common form of noninvasive breast cancer (90%). Lobular carcinoma in situ (LCIS) is less common and considered a marker for increased breast cancer risk.

**nonpalpable:** a breast abnormality that is present but unable to detect by touch. Mammography helps detect many nonpalpable breast cancers in an early stage.

**normal hormonal changes:** changes in breast and other tissues that are caused by fluctuations in levels of female hormones during the menstrual cycle.

**nuclear magnetic resonance (NMR):** See magnetic resonance imaging.

**nuclear medicine scan:** a method for localizing diseases of internal organs such as the brain, liver, or bone, in which small amounts of a radioactive substance (isotope) are injected into the bloodstream. The isotope is concentrated in certain organs. A scintillation (nuclear medicine) camera is used to produce an image of the organ and detect areas of disease.

**nucleus:** the center of a cell where the DNA is housed and replicated. Studying the size and shape of a cell's nucleus under the microscope can help pathologists distinguish breast cancer cells from benign (non-cancerous) breast cells.

**nulliparous:** a woman who has never given birth to a child.

**nurse practitioner:** a registered nurse (RN) who has completed additional courses and specialized training. Nurse practitioners can work with or without the supervision of a physician. They take on additional duties in diagnosis and treatment of patients, and in many states they may write prescriptions. (See also oncology nurse specialist).

O [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**oncogene:** a type of gene. When these genes are abnormally "turned on" (activated), they cause excessive growth and other characteristics of malignancy.

**oncologist:** a physician who is specially trained in the diagnosis and treatment of cancer. Medical oncologists specialize in the use of chemotherapy and other drugs to treat cancer. Radiation oncologists specialize in the use of x-rays and other radiation to kill tumors. Surgical

oncologists specialize in performing operations to remove cancer.

**oncologist, medical:** a physician who specializes in the medical treatment of cancer. Medical oncologists have a thorough knowledge of how cancers behave and grow. This knowledge is used to calculate your risk of recurrence as well as the possible need for and benefits of additional or adjuvant therapy (such as chemotherapy, hormonal therapy, or bone marrow transplantation). Your medical oncologist generally manages your overall medical care and monitors your general health during your course of treatment. He or she checks your progress frequently, reviews your lab and X-ray results, and coordinates your medical care before and after your course of treatment.

**oncologist, radiation:** staff physician trained in cancer treatment using radiation therapy

**oncologist, surgical:** a doctor who performs biopsies and other surgical procedures such as removing a lump or a breast

**oncology:** the branch of medicine that deals with cancer and tumors.

**oncology nurse specialist:** a registered nurse who has taken additional courses and specialized training in the care of cancer patients. Oncology nurse specialists may prepare and administer treatments, monitor patients, prescribe and provide aftercare, and teach and counsel patients and their families. Some oncology nurse specialists are also certified nurse practitioners. (See also case manager, nurse practitioner).

**oncology social worker:** a person with a master's degree in social work who has specialized in working with cancer patients. The oncology social worker provides counseling and assistance to people with cancer and their families, especially in dealing with the non-medical crises that can result from cancer, such as financial problems, housing when treatments must be taken at a facility far away from home, and child care.

**one-step procedure:** surgery during which the procedure to diagnose the presence of breast cancer (see biopsy) is followed immediately by treatment (such as mastectomy—removal of the breast). The patient is given general anesthesia and does not know until she wakes up if the diagnosis was cancer or if a mastectomy was performed. Once the only option in breast cancer treatment, the one-step procedure is now rarely used. (See also two-step procedure).

**oophorectomy:** surgery to remove the ovaries, the primary source of estrogen. It may be performed to remove a lump, tumor, or abscess, or to treat endometriosis. Oophorectomy is also a preventive measure to reduce the risk of breast cancer by stopping the production of estrogen.

**osteoporosis:** Breakdown of bone, resulting in diminished bone mass and reduced bone strength. Osteoporosis can cause pain, deformity (especially of the spine), and fractures (broken bones). This condition is common among post-menopausal women. (See also estrogen replacement therapy).

**outpatient:** a patient who is not hospitalized but instead is cared for elsewhere -- as in a doctor's office, clinic, or day surgery center. Outpatient care today is also called ambulatory care.

**ovarian:** of or pertaining to the ovary.

**ovarian cancer :** cancer of the ovary, the egg sac of females. The ovary is one of the pair of female sexual reproductive organs (gonads) found on each side of the lower abdomen, beside the uterus. Ovarian cancer occurs in approximately one in 55 women.

**ovaries:** female reproductive organs that produce hormones.

**ovary:** Reproductive organ in the female pelvis. Normally a woman has two ovaries. They contain the eggs (ova) that, when joined with sperm, result in pregnancy. Ovaries are also the primary source of estrogen. (See also estrogen).

**overexpression:** the excess production of growth factor receptors (cell-surface receptors) that results from alteration of a gene in cancer cells

P [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**p53 gene:** A gene that normally helps to suppress tumors, researchers have found that, when mutated, the p53 gene increases a woman's risk of developing breast cancer.

**Paclitaxel:** included a class of chemotherapy drugs (taxanes) that prevents cancer cell division and growth and promotes cancer cell death. Paclitaxel (brand name, Taxol): See Taxol.

**Paget's disease of the nipple:** a rare form of breast cancer that begins in the milk passages (ducts) and spreads to the skin of the nipple and areola. This affected skin may appear crusted, scaly, red, or oozing. The prognosis is generally better if these nipple changes are the only sign of breast disease and no lump can be felt.

**palliative treatment:** therapy that relieves symptoms, such as pain, but is not expected to cure the disease. Its main purpose is to improve the patient's quality of life.

**palpable:** able to be felt.

**palpation:** The examination of the breasts by manually feeling for breast lumps. A palpable mass in the breast is one that can be felt.

**parenchyma:** the functional tissue of an organ. In the breast, it is the glandular tissue, as opposed to fatty or stromal (connective) tissues.

**partial (segmental) mastectomy:** surgery to remove the breast cancer and a larger portion of

the normal breast tissue around the breast cancer. The surgeon may also remove the lining over the chest muscles below the tumor and some of the lymph nodes under the arm.

**pathologist:** a doctor who studies and examines tissue samples for signs of cancer or other abnormalities. A physician who specializes in examining, diagnosing, and classifying diseases by conducting laboratory tests (such as examining tissues and cells under a microscope). The pathologist determines whether a lump is benign or cancerous.

**pathology:** branch of science that deals with all aspects of disease, specifically the microscopic examination of body tissue to look for evidence of disease.

**pathology lab:** the location, or laboratory, where pathologists work

**pathology report:** a report that describes tissue removed from the body to help understand the nature of a disease

**pectoral muscles:** muscles attached to the front of the chest wall and upper arms. The larger one is called pectoralis major, and a smaller one is called pectoralis minor. Because these muscles are next to the breast, breast cancer may occasionally spread to the pectoral muscles.

**pectoralis muscle:** the main chest wall muscle that is underneath the breast tissue.

**pelvic examination:** a physician examination of the uterus, vagina, ovaries, fallopian tubes, bladder, and rectum.

**peripheral neuropathy:** a condition of the nervous system that usually begins in the hands and/or the feet with symptoms of numbness, tingling, and/or weakness. Can be caused by certain anticancer drugs.

**peripheral stem cell transplantation:** a process in which the stem cells (immature cells from which blood cells develop) are removed, treated with anticancer drugs, and frozen until they are returned to the patient.

A method for replacing bone marrow destroyed by cancer treatment. Certain cells (stem cells) in the blood that are similar to those in bone marrow are removed from the patient's blood before treatment. The cells are given back to the patient after cancer treatment to help the bone marrow recover and continue producing healthy blood cells.

**permanent section:** preparation of tissue for microscopic examination. The tissue is soaked in formaldehyde, processed in various chemicals, surrounded by a block of wax, sliced very thin, attached to a microscope slide and stained. This usually takes 1-2 days. It provides a clear view of the specimen so that the presence or absence of cancer can be determined. (See also frozen section).

**Phyllodes tumors:** breast tumors that may be found in the glandular and stroma (connective) tissues of the breast. Phyllodes tumors are usually benign but on very rare occasions, they may be cancerous. Also spelled phylloides.

**physical therapist:** a person trained and certified by a state or accrediting body to design and implement physical therapy programs. Physical therapists may work within a hospital or clinic, in a school providing assistance to special education students, or as an independent practitioner.

**physician:** a licensed medical doctor or doctor of osteopathy (DO) who typically participates in additional training (a residency) after medical school to specialize in a more limited field of practice.

**placebo:** an inert or inactive substance that is not distinguishable from the active substance. Placebos are often used in clinical trials to compare the effects of a given treatment with no treatment.

**plastic surgeon:** a surgeon who specializes in reducing scarring or disfigurement that may occur as a result of accidents, birth defects, or treatment for diseases, such as breast cancer. Plastic surgeons may surgically reconstruct a woman's breast after mastectomy (breast removal).

**plastic surgery:** the field of surgery concerned with reducing scarring or disfigurement that may occur as a result of accidents, birth defects, or treatment for diseases, such as melanoma.

**platelets:** type of blood cells that help stop bleeding.

**pleomorphic:** having many or various shapes. These terms often describe microcalcifications which can indicate ductal carcinoma in situ (DCIS), an early stage breast cancer.

**ploidy:** a measure of the amount of DNA contained in a cell. Ploidy is a characteristic (marker) that helps predict how aggressive a cancer is likely to be. Cancers with the same amount of DNA as normal cells are called diploid and those with either more or less than that amount are aneuploid. About two-thirds of breast cancers are aneuploid.

**polymorphic:** having an irregular shape or various shapes. This term often describes microcalcifications which can indicate ductal carcinoma in situ (DCIS), an early stage breast cancer.

**postmenopause:** term used to describe the time in a woman's life after menopause.

**potential:** a potential product is one that is experimental and is not yet approved by the FDA for that specific use

**precancerous:** abnormal changes in cells that indicate a higher than normal risk of developing into cancer. See also premalignant.

**predisposition:** susceptibility to a disease that can be triggered under certain conditions. For example, some women have a family history of breast cancer and are therefore predisposed (but not necessarily destined) to develop breast cancer.

**prealignant:** abnormal changes in cells that may, but do not always, become cancer. Also called precancerous.

**premenopause:** term used to describe the time in a woman's life before menopause.

**prevalence:** a measure of the proportion of persons in the population with a particular disease at a specified time.

**primary:** first or foremost in time or development. The primary teeth (the baby teeth) are those that come first. Primary may also refer to symptoms or a disease to which others are secondary.

**primary cancer:** the site where cancer begins. Primary cancer is usually named after the organ in which it originates (for example, cancer that originates in the breast is always breast cancer even if it metastasizes to other organs, such as bones or lungs).

**primary tumor:** a tumor that is at the original site where it first arose. For example, a primary brain tumor is one that arose in the brain as opposed to one that arose elsewhere and metastasized (spread) to the brain.

**progesterone:** a female hormone and the principal progestational hormone that is made mainly by the ovaries and adrenal glands. A hormone produced; essential for healthy functioning of the female reproductive system. Similarly refers to synthetic versions of the hormone. Also known as progestational hormone.

**progesterone receptors (PR):** a protein found inside some cancer cells. The hormone progesterone will bind to the receptors inside the cells and may cause the cells to grow.

**progesterone receptor assay:** a laboratory test done on a piece of the breast cancer to determine whether the cancer depends on progesterone for growth. Progesterone receptors are tested along with estrogen receptors for more complete information on the hormone sensitivity of a cancer, and how best to treat it. (See also estrogen receptor assay).

**prognosis:** 1. The expected course of a disease . 2. The patient's chance of recovery. The prognosis predicts the outcome of a disease and therefore the future for the patient . Predicting the likely outcome of a disease based on the condition of the patient and the action of the disease. A prediction of the course of disease; the outlook for the cure of the patient. For example, a woman with breast cancer that was detected early and received prompt treatment generally has a good prognosis.

**prolactin:** a hormone released from the pituitary gland that prompts milk production (lactation).

**prophylactic mastectomy:** See mastectomy.

**prosthesis:** an artificial substitute or replacement of a part of the body such as a tooth , eye, a facial bone, the palate , a hip, a knee or another joint , the leg, an arm, etc. A prosthesis is designed for functional or cosmetic reasons or both. An artificial form designed to replace a

missing part of the body. Breast prostheses may be worn following a mastectomy.

**protein:** a large molecule composed of one or more chains of amino acids in a specific order determined by the base sequence of nucleotides in the DNA coding for the protein.

**protocol:** a formalized outline or plan such as a description of what type of treatments a patient will receive and exactly when each should be given.

**ptosis:** The natural droop of the breast over the inframammary fold.

Q    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**quality of life:** an important consideration in medical care, quality of life refers to the patient's ability to enjoy normal life activities. Some medical treatments can seriously impair quality of life without providing appreciable benefit, while others greatly enhance quality of life.

**quadrantectomy:** see mastectomy

R    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**radiation:** Rays of energy. Gamma rays and X-rays are two of the types of energy waves often used in medicine. The use of energy waves to diagnose or treat disease.

**radiation oncologist:** See oncologist.

**radiation technologist:** a professional who checks the radiation dosage to make it as safe as possible

**radiation therapist:** a professional who helps place you in the correct treatment position and interprets X-ray studies

**radiation therapy:** the use of high-energy rays or substance particles to kill or shrink cancer cells stopping them from growing and dividing. Like surgery, radiation therapy is a local treatment that affects cancer cells only in the treated area. External radiation by an x-ray machine sends the x-ray through the skin. Internal radiation puts radioisotopes into the body through thin plastic tubes.

**radical mastectomy:** surgery to remove the entire breast (including the nipple, the areola, and the overlying skin), the lymph nodes under the arm, also called the axillary lymph glands, and the chest muscles. See mastectomy.

**radioactive:** emitting energy waves due to decaying atomic nuclei. Radioactive substances are

used in medicine as tracers for diagnosis, and in treatment to kill cancerous cells.

**radiodense:** effective in blocking x-rays. Breast tissue in younger women is usually more "radiodense" than the fattier tissue in older women. Some contrast agents used in various x-ray procedures are also radiodense. Also called radiopaque.

**radioisotopes:** materials that produce radiation. Also called isotope. A type of atom that is unstable and prone to break up (decay). Decay releases small fragments of atoms and energy. Exposure to certain radioisotopes can cause cancer. Use of radioisotopes under controlled conditions can be used to treat cancer (see radiotherapy). In certain nuclear medicine imaging procedures, radioisotopes are injected. They travel through the body and collect in areas where the disease is active, showing up as highlighted areas on the images (see nuclear medicine scan). In breast cancer, radioisotopes are used to check for metastasis to the bones.

**radiologic technologist:** a health professional (not a physician) trained to properly position patients for x-rays or other radiology studies such as CT or mammography, perform the imaging study, and to develop and check the images for quality. Since mammograms (breast x-rays) are done on a machine that is used only for mammograms, the technologist must have special training in mammography. The films taken by the technologist are sent to a radiologist to be read.

**radiologist:** a physician who has taken additional training in interpretation of x-rays and other types of diagnostic imaging studies (for example, mammography, ultrasound, magnetic resonance imaging, computerized axial tomography, etc.) (See imaging).

**radiopaque:** effective in blocking x-rays. Breast tissue in younger women is usually more "radiopaque" than the fattier tissue in older women. Some contrast agents used in various x-ray procedures are also radiopaque. Also called radiodense.

**radiotherapy:** the treatment of disease with ionizing radiation. Also called radiation therapy. Treatment with radiation to destroy cancer cells. External sources of radiation used include linear accelerators, cobalt, and betatrons. This type of treatment may be used to reduce the size of a cancer before surgery, or to destroy any remaining cancer cells after surgery. Also called radiation therapy and irradiation. See also internal radiation or brachytherapy.

**Raloxifene:** brand name, Evista. Drug used to prevent and treat osteoporosis. Raloxifene is also being studied to determine whether it can safely and effectively prevent breast cancer in women at high risk for the disease since it is chemically similar to the drug tamoxifen. A hormonal therapy proven to reduce one's risk for breast cancer by 50% .

**reconstruction:** See breast reconstruction.

**reconstructive mammoplasty:** See mammoplasty, latissimus dorsi flap procedure, and transverse rectus abdominus muscle flap procedure.

**reconstructive surgery:** See breast reconstruction.

**recurrence:** cancer that has returned after treatment; the return of a sign, symptom or disease after a remission. The reappearance of cancer cells at the same site or in another location is, unfortunately, a familiar form of recurrence. Cancer that returns after treatment. Local recurrence occurs at the same site as the original cancer. Regional recurrence occurs in the lymph nodes near the site of origin. Distant recurrence occurs in organs or tissues further from the original site than the regional lymph nodes (such as the lungs, liver, bone marrow, or brain). The term, metastasis, is used to describe a disease has recurred at another site in the body.

**rectus abdominus flap procedure:** see transverse rectus abdominus muscle flap procedure.

**red blood cells:** cells that supply oxygen to tissues throughout the body.

**reduction mammoplasty:** see mammoplasty.

**regimen:** a strict, regulated plan (such as diet, exercise, or other activity) designed to reach certain goals. In cancer treatment, a plan to treat cancer.

**regional involvement:** the spread of breast cancer from its original site to nearby areas such as the axillary lymph nodes, but not to distant sites such as other organs.

**rehabilitation:** activities to adjust, heal, and return to a full, productive life after injury or illness. This may involve physical restoration (such as the use of prostheses, exercises, and physical therapy), counseling, and emotional support.

**relapse:** reappearance of cancer after a disease-free period. See recurrence.

**remission:** complete or partial disappearance of the signs and symptoms of cancer in response to treatment; the period during which a disease is under control. A remission may not be a cure. The disappearance of the signs and symptoms of cancer. A remission can be temporary or permanent.

**residual breast tissue:** the remaining glandular breast tissue still in the treated breast following breast-conserving surgery (lumpectomy).

**revision surgery:** a second surgery that may be needed to modify the results of the original breast reconstructive or cosmetic surgery.

**risk factor:** anything that increases a person's chance of getting a disease, such as cancer. Known risk factors for breast cancer include: family history of the disease especially in one's mother or sister; beginning menstrual periods at a young age (early menarche) and ending periods at an older age (later menopause); and obesity. Something that increases a person's chance of developing a disease.

S    [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**S-phase fraction (SPF):** the percentage of cells that are replicating their DNA. DNA replication usually indicates that a cell is getting ready to split into two new cells. A low SPF is a sign that a tumor is slow-growing; a high SPF shows that the cells are dividing rapidly and the tumor is growing quickly.

**saline:** a sterile solution of salt (sodium chloride) and water. Medical saline is typically the same salinity ("saltiness") as blood.

**saline breast implant:** breast implant filled with a salt-water solution. See also breast implant.

**sarcoma:** a malignant tumor growing from connective tissues, such as cartilage, fat, muscle, or bone. Several types of sarcoma (such as angiosarcoma, liposarcoma, and malignant phylloides tumor) can rarely develop in the breast, and they differ in their prognosis.

**Sargramostim:** brand name, Leukine. A drug used to treat neutropenic patients (those with a decreased white blood cell count).

**scan:** a study using either x-rays, radioactive isotopes or magnetic resonance to produce images of internal organs and structure of the body. (See also bone scan, brain scan, computed tomography (CT) scan, magnetic resonance imaging (MRI), nuclear medicine scan).

**scar:** the healing response by the body to any form of injury.

**Scarff-Bloom-Richardson grading system:** the most common type of cancer grade system currently used by physicians. Breast tumors are assigned a grade of 1, 2, or 3 based on observed features of the tumor.

**sclerosing adenosis:** a benign breast condition that involves excessive growth of tissues in the breast's lobules, often resulting in breast pain.

**screening:** the search for disease, such as cancer, in people without symptoms. Screening may refer to coordinated programs in large populations. The principal screening measure for breast cancer is mammography.

**screening mammogram :** a mammogram (an X-ray of the breast) in women who have no signs of breast cancer . It usually involves two X-rays of each breast. The aim of a screening mammogram is to detect a tumor that cannot be felt.

**secondary tumor:** a tumor that forms as a result of spread (metastasis) of cancer from its site of origin.

**segmental mastectomy:** See mastectomy.

**segmental resection:** See mastectomy.

**sentinel node biopsy:** a new procedure that involves removing only the sentinel node(s), the

first lymph node in the lymphatic chaining, to determine whether the breast cancer has spread to the lymph nodes. Research has shown the sentinel node biopsy can significantly reduce lymphedema (arm swelling), the most common side effect of axillary node dissection.

**SERM:** Selective Estrogen-Receptor Modulator.

**seroma:** clear fluid trapped in the wound. A seroma usually forms after breast cancer surgery, filling the surgical cavity after the operation and naturally remodeling the breast's shape. Gradually, the seroma is absorbed by the body.

**scintillation camera:** device used in nuclear medicine scans to detect radioactivity and produce images that help diagnose cancer and other diseases.

**sentinal lymph node:** the first lymph node to which a tumor drains, making it the first place where cancer is likely to spread. In breast cancer, the sentinal node is usually located in the axillary nodes, located under the arm.

**shot:** the use of a syringe and needle to push fluids or drugs into the body. Also called injection.

**side effects:** results of a drug or other form of therapy in addition to the intended effect, such as hair loss caused by chemotherapy and fatigue caused by radiation therapy.

**silicone:** a synthetic gel that is used as the outer coating on breast implants. It also makes up the inside filling of some implants, although saline is now a more common implant filler.

**silicone gel:** synthetic material used in breast implants because of its flexibility, strength, and texture, which is similar to the texture of the natural breast. Silicone gel breast implants are available for women who have had breast cancer surgery, but only if they participate in a clinical trial. (See also breast implant).

**simple mastectomy:** see mastectomy.

**skin dimpling:** indentations of the breast skin, possible indication of breast cancer. See also dimpling.

**sonography:** see ultrasound.

**spiculated:** on a mammogram, dense regions with radiating lines that suggest breast masses or distortions. The term is used to describe highly suspicious masses that may indicate cancer. However, some post-operative scars may be quite spiculated and resemble cancer.

**spot compression mammography:** aAn x-ray view of the breast that apply the compression to a small area of tissue using a small compression plate or cone. By applying compression to only a specific area of the breast, the effective pressure is increased on that spot. This results in better tissue separation and allows better visualization of the small breast area in question. Also called compression mammogram, spot view, cone views, or focal compression views.

**stage:** a method of describing the size and location of a cancer based upon characteristics of the tumor, the lymph nodes, and whether it has spread to other organs.

**staging:** the process of determining and describing the extent of cancer. Staging of breast cancer is based on the size of the tumor, whether regional axillary lymph nodes are involved, and whether distant spread (metastasis) has occurred. Knowing the stage at diagnosis is essential in selecting the best treatment and predicting a patient's outlook for survival.

**standard therapy, standard treatment:** See therapy

**statistically significant:** term used to describe a scientifically proven relationship that is the result of an objective analysis in a large group of patients.

**stereotactic core needle biopsy:** a method of needle biopsy that is useful when calcifications or a mass can be seen on mammogram but cannot be located by touch

**stereotactic needle biopsy:** a method of needle biopsy that is useful in some cases in which calcifications or a mass can be seen on mammogram but cannot be located by touch. Computerized equipment maps the location of the mass and this is used as a guide for the placement of the needle. See also needle aspiration, needle biopsy.

**stomatitis:** inflammation or ulcers of the mouth area. This condition can result as a side effect of some chemotherapy regimens.

**subcutaneous mastectomy:** see mastectomy.

**supraclavicular nodes:** lymph nodes that are above the collarbone (clavicle).

**surgeon:** a physician with a medical doctorate (MD) degree and advanced training in surgical techniques. Some surgeons specialize in a specific area of the body (for example, the breast). Surgeons perform breast biopsy, lumpectomy, and mastectomy on breast cancer patients.

**surgery:** also known as an operation, this is a procedure done to remove or repair a part of the body or to see if disease is present

**survival rate:** the percentage of people who live a certain period of time. For example, the 5-year survival rate for women with localized breast cancer (including all women living five years after diagnosis, whether the patient was in remission, disease-free, or under treatment) was 78% in the 1940s, but in the 1990s, it is over 97%.

**suspicious:** a breast abnormality that may indicate breast cancer. On a mammogram, these abnormalities may be lesions such as spiculated masses or pleomorphic microcalcifications.

**synchronous:** at the same time. See also bilateral.

**systemic disease:** in breast cancer, this term means that the tumor that originated in the

breast has spread to distant sites, such as the liver, brain, bones, or lungs. Systemic chemotherapy employs drugs that travel through the bloodstream and reach and affect cells all over the body.

**systemic therapy:** treatment that reaches and affects cells throughout the body as opposed to targeting one specific area; for example, chemotherapy.

T     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
[N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**Tamoxifen:** a drug used in hormone therapy to treat breast cancer by blocking the effects of estrogen.

total (or simple) mastectomy - surgery to remove the entire breast (including the nipple, the areola, and most of the overlying skin) and may also remove some of the lymph nodes under the arm, also called the axillary lymph glands. This drug blocks the effects of estrogen on many organs, such as the breast. Blocking estrogen is desirable in some cases of breast cancer because estrogen promotes their growth. Recent research suggests that tamoxifen may lower the risk of developing breast cancer in women with certain risk factors.

**targeted therapy:** a type of cancer treatment that targets only certain types of cell activities

**Taxol (generic name, Paclitaxel):** a drug sometimes used to treat breast cancer that has spread into and/or beyond the axillary (underarm) lymph nodes.

**Taxotere:** generic name, Docetaxel. Drug used to treat metastatic breast cancer in patients who have not responded well to standard chemotherapy. Taxotere inhibits the division of breast cancer cells by acting on the cells' internal skeletons.

**therapy:** any measure taken to treat a disease. Unproven therapy is any therapy that has not been scientifically tested and approved. Use of an unproven therapy instead of standard therapy is called alternative therapy. Taking vitamin supplements or herbs to help treat breast cancer is an example of an alternative therapy. Some alternative therapies have dangerous or even life-threatening side effects. For others, the main danger is that a patient may lose the opportunity to benefit from standard therapy. Complementary therapy, on the other hand, refers to therapies used in addition to standard therapy. Some complementary therapies may help relieve certain symptoms of cancer, relieve side effects of standard cancer therapy, or improve a patient's sense of well-being. Patients should discuss alternative or complementary therapies with their physician before beginning them.

**thermography:** a test to measure and display heat patterns of tissues near the surface of the breast. Abnormal tissue generally is warmer than healthy tissue. This technique is under study; its value in detecting breast cancer has not been proven. Also called a thermogram or thermal imaging, this method is not yet reliable in detecting breast cancer.

**thrombocytopenia:** a decrease in the number of platelets in the blood, resulting in the potential

for increased bleeding and decreased ability for clotting

**tissue:** a tissue in medicine is a broad term that applies to any group of cells that perform specific functions. A tissue in medicine need not form a layer.

**tissue expander:** a device used to stretch the remaining breast skin after a mastectomy. A tissue expander is similar to a balloon, and the surgeon will fill the expander with salt-water solution periodically (usually once a week). The expansion process typically takes three to four months. After the skin is sufficiently stretched, the surgeon will replace the expander with a permanent breast implant. Also called breast expander.

**TMN classification:** the most commonly used method of breast cancer staging classification currently used by physicians. The TMN system assigns a stage to a breast cancer (0-IV) based on tumor size (T), palpable nodes (N), and/or extent of spread (metastasis, M).

**total mastectomy:** see mastectomy.

**TRAM flap:** see transverse rectus abdominus muscle flap procedure.

**transfusion:** the transfer of blood or blood products from one person (the donor) into another person (the recipient's) bloodstream. In most situations, this is done as a lifesaving maneuver to replace blood cells or blood products lost through severe bleeding. Transfusion of your own blood (autologous) is the safest method but requires planning ahead and not all patients are eligible. Directed donor blood allows the patient to receive blood from known donors. Volunteer donor blood is usually most readily available and, when properly tested has a low incidence of adverse events.

**transillumination:** see diaphanography.

**transscan:** see electrical impedance imaging.

**Trastuzumab (brand name, Herceptin):** see Herceptin.

**transverse rectus abdominus muscle flap procedure:** a method of breast reconstruction in which tissue from the lower abdominal wall which receives its blood supply from the rectus abdominus muscle is used. The tissue from this area is moved up to the chest to create a breast mound and usually does not require an implant. Moving muscle and tissue from the lower abdomen to the chest results in flattening of the lower abdomen (a "tummy tuck"). Also called a TRAM flap or rectus abdominus flap procedure.

**T-Scan:** See electrical impedance imaging.

**tumor:** an abnormal growth of tissue that does not have normal body function. Tumors are a classic sign of inflammation, and can be benign or malignant (cancerous). Tumor marker tests and imaging may be used; some tumors can be seen (for example, tumors on the exterior of the skin) or felt (palpated with the hands).

**tumor block:** section of tissue biopsy preserved in wax for future study.

**two-step procedure:** a method in which the breast biopsy for diagnosis and breast surgery for treatment (such as lumpectomy or mastectomy, if the diagnosis is breast cancer) are performed as two separate procedures, after an interval of days or weeks. This method is strongly preferred by women and their health care teams because it allows time to consider all options. (See also one-step procedure).

tylectomy: see lumpectomy.

U     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**Ultrasonography (ultrasound):** an imaging method that uses high-frequency waves to image the breast or other parts of the body. High-frequency sound waves are transmitted from a transducer through the area of the body being studied. The sound wave echoes are picked up and displayed on a computer monitor or television screen. Ultrasound is a painless method that is sometimes useful in distinguishing fluid-filled cysts from solid tumors. Ultrasound involves no exposure to radiation.

**ultrasound :** high-frequency sound waves. Ultrasound waves can be bounced off of tissues using special devices. The echoes are then converted into a picture called a sonogram. Ultrasound imaging, referred to as ultrasonography, allows physicians and patients to get an inside view of soft tissues and body cavities, without using invasive techniques.

**unifocal:** term used to describe cancer that is present in only one spot in the breast.

**unilateral:** affecting one side of the body. For example, unilateral breast cancer occurs in only one breast. (See also bilateral).

**uterus:** the uterus (womb) is a hollow, pear-shaped organ located in a woman's lower abdomen between the bladder and the rectum. The narrow, lower portion of the uterus is the cervix; the broader, upper part is the corpus. The corpus is made up of two layers of tissue.

V     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**vaccine:** inactivated, killed, or weakened disease-causing organisms (for example, mumps or measles virus) that are injected into the body for the purpose of developing resistance to the disease. The body's immune system responds to the vaccine by forming antibodies and activating certain immune system cells that are specifically targeted to those particular organisms. The result is that the body is then resistant (immune) to the disease for a specific period of time; in some cases, the immunity lasts forever. Development of a cancer vaccine is a subject of intense research. (See immune system and antibody).

**vaginitis:** any inflammation (swelling) of the vagina. Atrophic vaginitis is an inflammation of the vagina in which the vaginal tissue becomes thin and dry. This condition may occur after menopause due to a lack of estrogen. (See also menopause.) An estrogen cream may be prescribed to relieve this problem. Vaginitis can also be a side effect of chemotherapy.

**valley view:** also called "cleavage view," it is a mammogram view of the most medial portions of the breasts. This is the portion of breast tissue "in the valley" between the two breasts.

W     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**white blood cells:** several types of blood cells that help defend the body against infections from bacteria, viruses, parasites, and foreign tissue such as abnormal or tumor cells. Certain cancer treatments (particularly chemotherapy) can reduce the number of these cells and make a patient more vulnerable to infections. Some types of white blood cells may also help the body fight certain cancers. (See also neutropenia).

**wire localization:** also called needle localization. A procedure used to guide a surgical breast biopsy when the breast lump is difficult to locate or in areas that look suspicious on the x-ray (mammogram) but do not have a distinct lump. Mammogram or ultrasound images are used to guide the needle to the suspicious area of the breast. The radiologist typically replaces the needle with a wire and sends the patient to the surgeon with only a wire in place. The surgeon then uses the path of the wire as a guide to locate the abnormal area to be removed. Needle localization is usually used when there is no palpable (able to be felt) lump (i.e., a finding found only or most convincingly on an imaging study such as a mammogram or: August 2006

X     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**X-rays:** one form of radiation that can, at low energy levels, produce an image of the body or organ on film or computer monitor using a special detector. At high energy levels, x-rays can be used to destroy cancer cells.

**Xeroradiography (xeromammography):** an outdated form of mammography that records the image of the breast on paper rather than on film. This method is rarely used now.

Y     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

There are currently no terms in the "Y" section of the glossary.

Z     [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#)  
      [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**Zoladex:** generic name, goserelin acetate. Drug used to treat metastatic breast and prostate cancers. Zoladex works by blocking estrogen from breast cancer cells (and blocking testosterone in men), thereby starving these cells.