

## **Glossary of Terms**

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### **A**

**Adenoma** - A well-circumscribed benign tumor of glandular tissue that can compress adjacent tissue as it grows in size; usually stays contained or does not "invade." Cancer cells may grow in an adenoma. Consult your doctor for treatment options.

**Adjuvant Therapy** - Treatment that is given in addition to the primary treatment. This is generally chemotherapy, radiation, biological or hormonal therapy after surgery.

**Alopecia** - Hair loss.

**Anesthesia** - Loss of feeling or sensation. Local anesthesia may be induced into a specific region of the body, such as the breast, by injection of a drug (a local anesthetic) into that area. General anesthesia involves the entire body and may be induced by drugs injected into a vein or inhaled.

**Aneuploid** - Presence of an abnormal number of chromosomes in cancer cells; determined by *flow cytometry*. See *diploid*.

**Antiemetic** - Medicine to prevent or relieve nausea and vomiting.

**Areola** - Circular field of dark-colored skin surrounding the nipple.

**Aromatase Inhibitor** - A drug that prevents the formation of estradiol, a female hormone, by interfering with an aromatase enzyme. Aromatase inhibitors are used as a type of hormone therapy for postmenopausal women who have hormone-dependent breast cancer.

**Aspiration** - Withdrawal of fluid or tissue from a cyst or tumor with a hypodermic needle.

**Axilla** - Underarm area.

**Axillary Dissection or Sampling** - Removal of some or all of *lymph nodes* in the underarm area to test for the presence of cancer cells.

### **B**

**Benign** - Non-cancerous.

**Benign Breast Condition** - Non-cancerous changes in the breast that can cause pain, lumpiness or other problems, also called *fibrocystic condition*.



**Biological Therapy** - Use of the body's own immune system to fight cancer.

**Biopsy** - Removal of breast tissue for examination under the microscope to see if cancer cells are present.

**Core Needle Biopsy** - Removal of a cylinder of tissue from a growth or mass with a large-diameter needle for microscopic examination.

**Excisional Biopsy** - Surgical removal of the entire growth or mass for diagnosis.

**Incisional Biopsy** - Less commonly performed procedure for breast tumors; removes part of the tumor

**Needle Biopsy** - Removing tissue or fluid with a needle; also called aspiration.

**Stereotactic Biopsy** - An x-ray-guided method to localize and sample suspicious lesions discovered on mammography. It is particularly helpful in sampling small, non-palpable breast lesions using fine-needle aspiration for cytology or core-needle biopsy for histology.

**Brachytherapy** - A procedure in which radioactive material sealed in needles, seeds, wires, or catheters is placed directly into or near a tumor. Also called internal radiation, implant radiation, and interstitial radiation.

**Breast Cancer** - Uncontrolled growth of abnormal breast cells.

**Breast Conservation** - Breast cancer treatment involving surgical removal of a malignant breast lump and a small margin of surrounding normal tissue. Generally followed by radiation treatments to the breast. A separate incision is made for the *axillary dissection*.

**Breast Self Exam (BSE)** - Method used by women to become familiar with the normal appearance and feel of their breast tissue, so that if a change occurs, it will be detected early.

## C

**Cancer** - General name for over 100 diseases in which abnormal cell growth is uncontrolled.

**Case Management** - Process which assesses, plans, implements and monitors services required to meet an individual's health needs by using and creating resources to promote quality outcomes.



**Centigray** - One centigray describes the amount of radiation absorbed by the tissues and is equivalent to one *RAD*.

**Chemotherapy** - Treatment with drugs to destroy cancer cells, most often used to supplement surgery and/or *radiation therapy*.

**Clinical Breast Exam (CBE)** - Inspection and palpation of the breast, underarm and collarbone areas by a health care professional. A small number of breast cancers are not detected by mammography, but can be felt during a clinical breast examination.

**Clinical Trial** - Systematic investigation of the effects of diagnostic or treatment methods on cancer according to a formal study plan. The purpose of the research plan is to determine whether the particular method or treatment is of benefit in diagnosis or treatment. See *protocol*.

**Comparison Films** - By comparing present mammography films to past films, the radiologist is able to detect subtle changes.

**Cyst** - Round, smooth, fluid-filled sac. A breast cyst often fluctuates in size with the menstrual cycle.

## D

**Dense Tissue** - The breast is composed of two types of tissue: fat and fibroglandular. Fibroglandular tissue is the denser of the two. Tumors and normal tissue are easier to distinguish in mammographic images taken through fat tissue.

**Diagnostic Evaluation** - Evaluation of all tests to clarify abnormal results.

**Diagnostic Radiologist** - Physician who specializes in the diagnosis of diseases by the use of x-rays.

**Diploid** - Presence of a normal number of chromosomes in cancer cells; determined by *flow cytometry*. See *aneuploid*.

**Duct** - Structure in the breast through which milk passes from the glands to the nipple.

**Ductal Ectasia** - Benign change where the ducts become dilated and retain secretions. This often leads to nipple discharge and can result in a lump in the nipple area or nipple retraction.



**Ductal Carcinoma in situ (DCIS)** - Breast cancer confined to the breast ducts; often shows micro-calcifications on the mammogram.

**Ductal Papilloma** - Non-cancerous breast tumor, arising in the breast duct, that usually cannot be felt. It generally appears as either a bloody or clear nipple discharge.

## E

**Endocrine Manipulation** - Treating breast cancer by changing the hormonal balance of the body instead of using cell-killing drugs.

**Estrogen** - Female hormone produced by ovaries and adrenal glands, important to reproduction, and which may stimulate some cancers to grow.

**Estrogen Receptor Assay (ERA)** - Laboratory test performed on a malignant breast tumor to determine if the tumor is stimulated by *estrogen* to grow.

**Evista® (Raloxifene)** - The first in a class of new drugs known as Selective Estrogen Receptor Modulators (SERMs). Raloxifene, like tamoxifen, is a synthetic drug that blocks the action of estrogen, which is known to encourage the growth of breast tumors.

## F

**Fat Necrosis** - Non-cancerous breast change in which the breast responds to trauma by forming a firm, irregular mass, often years after the event. The mass is the result of fatty tissue dying following either surgery or blunt trauma to the breast. This breast change is not associated with an increased risk of breast cancer.

**Fibroadenoma** - Benign, usually painless, masses. They are most common in women in their 20s and 30s and seen more frequently in African American women. They are firm, rubbery, movable and often rounded.

**Fibrocystic Changes** - Non-specific term referring to a common condition of the breast. The condition usually is not cancer, but a benign change in the breast tissue due to cyclical hormone stimulation. These lumps or cysts are fluid-filled sacs that often enlarge and become tender just before the menstrual period. Cystic changes are most prominent in women 35 to 50 years old. Both breasts usually are involved, and multiple cysts of many sizes are common.

**Fine Needle/Cyst Aspiration** - Removal and evaluation of breast tissue or cystic fluid using a fine needle.

**Flow Cytometry** - Laboratory test performed on malignant breast tissue to determine the growth rate of malignant cells and the presence of abnormal chromosomes. See *aneuploid* and *diploid*.

**Frozen Section** - Method of rapid tissue diagnosis. A portion of the biopsy tissue is immediately frozen. A thin slice of the tissue is mounted on a microscope slide enabling a pathologist to give an interpretation at the time of surgery. See *permanent section*.

## H

**HER2/neu** - Human epidermal growth factor receptor 2. The HER2/neu protein is involved in the growth of some cancer cells. Also called c-erbB-2.

**Herceptin (trastuzumab)** - A monoclonal antibody that binds to HER2 (human epidermal growth factor receptor), and can kill HER2-positive cancer cells. Monoclonal antibodies are made in the laboratory and can locate and bind to cancer cells. Herceptin is used to treat breast cancer that is HER2-positive and has spread after treatment with other drugs. It is also used with other anticancer drugs to treat HER2-positive breast cancer after surgery. Herceptin is also being studied in the treatment of other types of cancer.

**Hormones** - Substances made by the body that regulate the activity of certain cells or organs. For example, sex hormones are largely responsible for sexual function and the physical characteristics that distinguish the sexes.

## I

**Immunotherapy** - Treatment of cancer by stimulation of the body's own immune defense system.

**Implant** - An "envelope" containing silicone, saline, or both, used to restore the breast shape.

**In-Situ** - Literally means "in the site of." In regard to *cancer*, refers to tumors that have not grown beyond the site of origin into neighboring tissue.

**Inflammatory Breast Cancer** - Special class of cancer that is rare. The breast looks inflamed or infected because of its red appearance and feels warm to the touch. The skin shows signs of ridges or wheals or may have a pitted appearance. It often appears abruptly, is aggressive and can spread quickly.

**Informed Consent** - Process through which a patient learns about the possible benefits and side effects of a recommended treatment plan and then accepts or declines the treatment.



The patient usually is asked to sign a consent document, but may decide to stop the treatment at any time and may choose other available medical care.

**Intraductal** - Within the milk duct. Intraductal can describe a benign or malignant process.

**Intravenous** - Being within or entering the body by way of the veins.

**Investigational Drug** - Chemical or biological drug that has been approved for use by clinical investigators in research trials but which is not yet available for commercial use.

## L

**Lactation** - Process of producing milk and breastfeeding a child.

**Linear Accelerator** - Machine that creates and uses high-energy x-rays or electrons to treat cancers.

**Lobe** - Group of glands in the breast that produce milk; each breast contains 15 to 20 lobes.

**Lobule** - Subdivision of the lobes of the breast.

**Lump** - Any kind of mass in the breast or elsewhere in the body.

**Lumpectomy** - Surgical procedure in which a cancerous lump along with a small margin of normal breast tissue is removed, leaving the remaining normal breast tissue intact.

**Lymphatic System** - Lymphatic system plays two important roles in the body: it moves protein and fluid from the body tissues back into the blood stream; and the lymph nodes act as filters, removing malignant and bacterial cells as well as foreign substances from the lymph fluid before it enters the bloodstream. Lymph tissue also is found in the tonsils, spleen, intestinal wall and bone marrow.

**Lymphedema** - Swelling of the arm caused by excess fluid. This condition may occur after lymph nodes and vessels have been removed during surgery or following radiation therapy.

**Lymph Nodes** - Bean-shaped structures scattered along the vessels of the lymphatic system that act as filters to remove malignant cells, bacterial cells and other foreign substances. The lymph nodes found in the axilla (underarm) are those most likely to be invaded by breast cancer cells. For this reason, some are removed during breast surgery to determine if breast cancer cells are present.

# M

**Malignant** - Cancerous.

**Mammary Duct Ectasia** - Non-cancerous breast condition resulting from the inflammation and enlargement of the ducts behind the nipple. Generally, women do not experience any symptoms; however, calcifications seen on a mammogram may indicate its presence. No treatment is necessary if the woman is not experiencing any symptoms (burning, pain or itching of the nipple area). This condition can become painful and produce a thick and sticky discharge.

**Mammary Glands** - Breast glands that produce and carry milk, by way of the ducts, to the nipples during pregnancy.

**Mammogram** - X-ray picture of the breast.

**Diagnostic Mammogram** - Mammogram used to further evaluate a woman with breast problems/symptoms or an abnormal finding on a screening mammogram. This procedure involves two or more x-ray views per breast and is done under the direct, on-site supervision of a board-certified radiologist.

**Screening Mammogram** - Mammogram (normally consisting of two views of each breast) for a woman without symptoms. The x-rays are not usually read at the time of the procedure.

**Mastectomy** - Surgical removal of the breast and some surrounding tissue.

**Modified Radical Mastectomy** - Most common type of mastectomy performed today. The breast and some of the underarm lymph nodes are removed, while the chest muscles are saved.

**Partial or Segmental Mastectomy** - Surgical removal of a portion of the breast including the cancer and a surrounding margin of normal tissue. *See lumpectomy, quadrantectomy, wedge excision and segmental excision.*

**Prophylactic Mastectomy** - (Prophylactic literally means preventive.) Procedure sometimes recommended for a patient at high risk of developing cancer in one or both breasts. Breast tissue is removed without removing skin or muscle.

**Radical Mastectomy (Halsted Radical)** - Removes the breast, chest muscles, all of the lymph nodes under the arm, and some additional fat and skin. Generally, this procedure is not performed today.

**Total Mastectomy** - Surgical removal of the entire breast. Some lymph nodes under the arm also may be removed.

**Mastitis** - Inflammation of the breast usually occurring during lactation. Symptoms include pain, nipple discharge, fever and redness and/or hardness over an area of the breast.

**Metastasis** - Spread of cancer from one part of the body to another through the lymphatic system or the blood stream; the cells in the new cancer are like those at the original site.

**Microcalcification** - Small, clustered deposits of calcium in the breast, which may be seen on mammogram. These may or may not be associated with a breast lump. Approximately 20% - 25% represent a breast cancer.

**Monoclonal Antibodies** - One type of substance used in cancer diagnosis or *biological therapy*. These antibodies are designed to react preferentially with cancer cells and sometimes carry another chemical (radioactive isotope, *chemotherapy* drug, or toxin) that can destroy cancer cells.

**Multimodality Therapy** - Use of two or more treatment methods (i.e., surgery, *radiation therapy*, *chemotherapy*, *immunotherapy*) in combination or sequentially to achieve optimal results.

## O

**Oncologist** - Physician who specializes in the diagnosis and treatment of cancer.

**Medical Oncologist** - Physician specializing in the treatment of cancer using chemotherapy, hormone, or biologic therapy.

**Radiation Oncologist** - Physician specializing in the treatment of cancer using high energy x-rays.

**Surgical Oncologist** - Physician specializing in the treatment of cancer using surgical procedures.

## P

**Palliative Therapy** - Treatment that may relieve symptoms without curing the disease.

**Palpation** - Examining with the hands to check for changes or abnormalities.



**Pathologist** - Doctor with special training in diagnosing disease by examining tissue samples under a microscope.

**Patient Navigator** - Assists patients and their families through the cancer care continuum. Examples of navigation services may include: arranging various forms of financial support; scheduling transportation to appointments; and organizing childcare during appointments.

**Permanent Section** - Method used for final tissue diagnosis. After overnight tissue processing, thin slices of tissue are mounted on a slide and examined microscopically by a pathologist. These sections are of better quality than the frozen section, and are used for final pathological diagnosis. Generally, it takes three working days to receive this final pathology report.

**Progesterone Receptor/Assay (PRA)** - Additional test (to the *estrogen receptor assay*, or *ERA*) that indicates whether a breast cancer is stimulated by female hormones to grow, and acts as a "check" on the results of the ERA.

**Prosthesis, Breast** - An artificial breast form that can be worn under clothing after a mastectomy.

**Protocol** - An outline or plan for use of an experimental drug, treatment or procedure in cancer therapy or diagnosis.

## Q

**Quadrantectomy** - Surgical procedure in which one quadrant or  $\frac{1}{4}$  of the breast is removed. A separate incision is made for the *axillary dissection*.

## R

**RAD (Radiation Absorbed Dose)** - This term describes the amount of radiation absorbed by the tissues.

**Radiation Therapy** - Use of high-energy x-rays to treat cancer.

**Radiotherapist** - Same as *radiation oncologist*.

**Reconstruction** - Surgical method to recreate the breast's shape after a natural breast has been removed. Various procedures are available, some of which involve the use of *implants*. May also be referred to as reconstruction mammoplasty.



**Recurrence** - Reappearance of cancer at the same site (local), near the site (regional), or in other areas of the body (distant).

**Remission** - Objective (i.e., measurable) decrease or disappearance of cancer following treatment; also used to refer to the duration of time over which this change occurs.

## S

**Segmental Excision** - See Partial or Segmental Mastectomy.

**Sentinal Node Biopsy** - Diagnostic procedure used to determine whether breast cancer has spread to axillary lymph nodes (i.e., lymph glands under the arm). A sentinel lymph node biopsy requires the removal of only one to three lymph nodes for close review by a pathologist.

**Sonogram** - See ultrasonography.

**Specificity** - Proportion of truly non-diseased persons who are identified as non-diseased by the screening test. It is a measure of the probability of correctly identifying a non-diseased person with a screening test.

**Stage** - Distinct phase in the course of a disease. Stages of cancer typically are defined by a containment of spread of the tumor: in situ, localized, regional or distant spread.

**Stage I** - The cancer is no bigger than 2 centimeters (about  $\frac{3}{4}$ " ) and has not spread outside the breast.

**Stage II** - The cancer is no bigger than 2 centimeters, but has spread to the lymph nodes under the arm; or the cancer is between 2 and 5 centimeters and may or may not have spread to the lymph nodes; or the cancer is bigger than 5 centimeters, but has not spread to the axillary nodes.

**Stage III** - (IIIa) The cancer is bigger than 5 centimeters and has spread to the lymph nodes or is smaller than 5 centimeters, but has spread into the lymph nodes and other structures attached to them. (IIIb) The cancer has spread to tissues near the breast (chest wall, including the ribs and muscles in the chest).

**Stage IV** - The cancer has spread to other organs of the body, most of the bones, lungs, liver or brain.

**Staging** - Certain tests and examinations done before any kind of definitive treatment to determine if the cancer has spread.



**Standard Treatment** - Usual treatment currently in widespread use and considered to be of proven effectiveness on the basis of previous experience.

**Stereotactic Localization** - Diagnostic procedure; method used to locate precise area for breast biopsy.

**Surgical Consult** - Face-to-face meeting between the client and physician to discuss the client's condition; usually includes a physical breast exam.

**Synchronous** - Lesion or mass that appears at the same time as the original mass. It is detected by clinical breast exam or mammogram.

## T

**Treatment Status** - When a diagnosis has indicated cancer, the treatment status is reported to clarify the standing within each case.

**Tumor** - Abnormal growth or mass of tissue, which may be benign (non-cancerous) or malignant (cancerous).

**Two-Step Procedure** - Biopsy and further surgical treatment performed at two separate times to give women time to consider treatment options and make related decisions with her health care provider and family.

## U

**Ultrasonography (Ultrasound)** - Non-invasive procedure that detects breast changes by sending high-frequency sound waves into the breast. Ultrasound may be helpful in distinguishing between solid masses and fluid-filled *cysts*. Unlike mammography, ultrasound cannot detect *microcalcifications* that may be present in the breast, nor does it identify small tumors.

## W

**Wedge Excision** - Surgical procedure involving the removal of a portion of the breast tissue. It is important that the woman discuss with her surgeon the extent of breast tissue to be removed.

## X

**X-rays** - Radiation that can be useful at low levels in the diagnosis of cancer and, at high levels in its treatment.