

# BREAST CANCER GLOSSARY

\*10-propargyl-10-deazaaminopterin

A substance that is being studied as an anticancer drug. It belongs to the family of drugs called folate analogues.

\*12-O-tetradecanoylphorbol -13-acetate

TPA. A drug that is being studied as a treatment for hematologic cancer.

\*17-N-allylamino-17-demethoxy geldanamycin

A drug that belongs to a family of drugs called antitumor antibiotics, and is being studied for its ability to treat cancer.

\*1H-nuclear magnetic resonance spectroscopic imaging

A noninvasive imaging method of detecting and measuring activity at the cellular level. It provides chemical information and is used in conjunction with magnetic resonance imaging (MRI), which gives spatial information. Also called proton magnetic resonance spectroscopic imaging.

\*2IT-BAD monoclonal antibody 170

A type of monoclonal antibody used in cancer detection or therapy. Monoclonal antibodies are laboratory-produced substances that can locate and bind to cancer cells.

\*3-aminopyridine-2-carboxaldehyde thiosemicarbazone

3-AP. A substance that is being studied as an anticancer drug. It belongs to the family of drugs called ribonucleotide reductase inhibitors.

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\*3-dimensional : A graphic display of depth, width, and height. Three-dimensional radiation therapy uses computers to create a 3-dimensional picture of the tumor. This allows doctors to give the highest possible dose of radiation to the tumor while sparing the normal tissue as much as possible.

\*4'-iodo-4'-deoxydoxorubicin

An anticancer drug that belongs to the family of drugs called antineoplastic antibiotics.

\*506U78

An anticancer drug that belongs to the family of drugs called antimetabolites.

\*6-hydroxymethylacylfulvene

An anticancer drug that belongs to the family of drugs called alkylating agents.

\*8-chloro-cyclic adenosine monophosphate

A substance that is being studied as an anticancer drug. It is an analogue of a substance that occurs naturally in the body (cyclic adenosine monophosphate).

\*9-cis retinoic acid : A drug being studied for cancer prevention; it belongs to the family of drugs called retinoids.

\*<sup>90</sup>Y-DOTA-biotin

A radioactive substance (yttrium-90) joined by a large chemical link (DOTA) to biotin, a vitamin.

## A

### \*A33 monoclonal antibody

A type of monoclonal antibody used in cancer detection or therapy. Monoclonal antibodies are laboratory-produced substances that can locate and bind to cancer cells.

### \*Abdomen

The part of the body that contains the pancreas, stomach, intestines, liver, gallbladder, and other organs.

### \*ABMT

See Autologous Bone Marrow Transplant.

### \*Abscess

A collection of lymphatic fluids and cellular debris (pus), usually from an infection.

### \*Accessory Breast Tissue

This is an uncommon finding of additional breast tissue located in the axillary (underarm) area. This area is difficult to position for imaging. Women with this condition often require an extra mammogram view. This is not a precancerous condition.

### \*Acetaminophen

A drug that helps reduce pain and fever (Tylenol®), but not the inflammation.

### \*Acetylcysteine

A drug usually used to reduce the thickness of mucus and ease its removal. It is also used to reverse the toxicity of high doses of acetaminophen. Also called N-acetylcysteine.

### \*Achlorhydria

A lack of hydrochloric acid in the digestive juices in the stomach. Hydrochloric acid helps digest food.

### \*Acini

This is another name for the lobules, or sac-like milk producing glands in the breast or any other similar gland structure. The singular form is acinus.

### \*Acitretin

A drug used in cancer prevention that belongs to the family of drugs called retinoids. It is also used in the treatment of psoriasis.

### \*Acoustic

Related to sound or hearing.

### \*ACR

American College of Radiology

\*Acridine carboxamide

DACA. A substance that is being studied as an anticancer drug. It belongs to the family of drugs called topoisomerase inhibitors.

\*Actinic keratosis

A precancerous condition of thick, scaly patches of skin. Also called solar or senile keratosis.

\*Activate

In biology, to stimulate a cell in a resting state to become active. This causes biochemical and functional changes in the activated cell.

\*Acupressure

The application of pressure or localized massage to specific sites on the body to control symptoms such as pain or nausea. Also used to stop bleeding.

\*Acupuncture : The technique of inserting thin needles through the skin at specific points on the body in order to control pain and other symptoms.

\*Acustimulation : Mild electrical stimulation of acupuncture points to control symptoms such as nausea and vomiting.

\*Acute

Occurring suddenly or in a short space of time, as opposed to chronic.

\*Acyclovir

An antiviral agent used to prevent or treat cytomegalovirus and herpes simplex infections that may occur when the body is immunosuppressed.

\*AD 32

An anticancer drug that belongs to a family of drugs called antitumor antibiotics. It is an anthracycline.

\*Adenocarcinoma

A general term for a cancer formed from glandular (adeno) tissue, including breast cancer.

\*Adenoma

A benign (noncancerous) tumor of glandular tissue that can compress adjacent tissue as it grows in size. These tumors are often well defined and usually stay contained. Fibroadenoma is a major cause of false positive readings in mammography.

\*Adenovirus

A group of viruses that cause respiratory tract and eye infections. Adenoviruses used in gene therapy are altered to carry a specific tumor-fighting gene.

\*\*Adjuvant therapy

Treatment that is given in addition to the main treatment to make it work better. This is generally chemotherapy, radiation or hormonal therapy for patients with breast cancer after surgery.

\*Adrenal glands

A pair of small glands, one located on top of each kidney. The adrenal glands produce the hormones epinephrine and norepinephrine that help control heart rate, blood pressure, the way the body uses food, and other vital functions.

\*Adrenalin

A hormone. Also called epinephrine.

\*Adverse effect

An unwanted side effect of treatment.

\*Aflatoxins

Substances made by a fungus that is often found on poorly stored grains and nuts. Aflatoxins have been implicated as a factor in the etiology of primary liver cancer.

\*AFP : Alpha-fetoprotein

A protein normally produced by a developing fetus. AFP levels are usually undetectable in the blood of healthy non-pregnant adults. An elevated level of AFP suggests the presence of either a primary liver cancer or germ cell tumor.

\*AG3340

An anticancer drug that belongs to the family of drugs called angiogenesis inhibitors. AG3340 is a matrix metalloproteinase inhibitor. Also called prinomastat.

\*Aggressive

A quickly growing cancer.

\*Aggressive lymphoma

A quickly growing cancer that arises in the cells of the lymphatic system.

\*Agonists

Drugs that trigger an action from a cell or another drug.

\*Agranulocyte

A type of white blood cell; monocytes and lymphocytes are agranulocytes.

\*Aldesleukin

A colony-stimulating factor that stimulates the production of blood cells, especially platelets, during chemotherapy. It is a cytokine that belongs to the family of drugs called hematopoietic (blood forming) agents. Also called interleukin-2 or IL-2.

\*Alendronate sodium

A drug that affects bone metabolism. It is used in treating osteoporosis and Paget's disease, and is being studied in the treatment of hypercalcemia (abnormally high levels of calcium in the blood) and in treating and reducing the risk of bone pain caused by cancer. Alendronate sodium belongs to the family of drugs called bisphosphonates.

\*Alkaline Phosphatase Test

A tumor marker test that assists in diagnosis of bone and liver metastases.

\*Alkylating Agents

One group of chemotherapy drugs, referring to the chemical interaction by which these drugs interfere with cell growth and reproduction. Cytosin is a common alkylating agent.

\*Allogeneic

Taken from different individuals of the same species.

\*Allogeneic bone marrow transplantation

A procedure in which a person receives stem cells, the cells from which all blood cells develop, from a compatible, though not genetically identical, donor.

\*Allopurinol

A drug that lowers high uric acid (a byproduct of metabolism) levels in the blood caused by some cancer treatments.

\*Allovecin-7

A compound used for gene therapy.

\*Alopecia

The medical name for hair loss. This is a common side effect of chemotherapy since the therapy interferes with fast-growing cells, including those that produce hair.

\*Alpha-fetoprotein

AFP. A protein normally produced by a developing fetus. AFP levels are usually undetectable in the blood of healthy non-pregnant adults. An elevated level of AFP suggests the presence of either a primary liver cancer or germ cell tumor.

\*Alternative medicine

Practices not generally recognized by the medical community as standard or conventional medical approaches and used instead of standard treatments. Alternative medicine includes such practices as dietary supplements, megadose vitamins, herbal preparations, special teas, massage therapy, magnet therapy, spiritual healing, and meditation.

\*Altretamine

An anticancer drug that belongs to the family of drugs called alkylating agents.

\*Alum

A type of immune adjuvant (a substance used to help boost the immune response to a vaccine). Also called aluminum sulfate.

\*ALVAC-CEA vaccine

A cancer vaccine containing a canary pox virus (ALVAC) combined with the human carcinoembryonic antigen (CEA) gene.

\*Alveoli

Tiny air sacs at the end of the bronchioles in the lungs.

\* Amenorrhea

The cessation of menstruation. In breast cancer literature, this is usually as a result of chemotherapy.

\* Amifostine

A drug used as a chemoprotective drug to control some of the side effects of chemotherapy and radiation therapy.

\* Amikacin

An antibiotic drug used to treat infection. It belongs to the family of drugs called aminoglycoside antibiotics.

\* Aminocamptothecin

An anticancer drug that belongs to the family of drugs called topoisomerase inhibitors.

\* Aminoglutethimide

An anticancer drug that belongs to the family of drugs called nonsteroidal aromatase inhibitors. Aminoglutethimide is used to decrease estrogen production and suppress the growth of tumors that need estrogen to grow.

\* Aminolevulinic acid

A drug used in photodynamic therapy that is absorbed by tumor cells; when exposed to light, it becomes active and kills the cancer cells.

\* Aminopterin

An anticancer drug that belongs to the family of drugs called antimetabolites.

\* Amoxicillin

An antibiotic drug used to treat infection. It belongs to the family of drugs called penicillins or penicillin-derivatives.

\* Amphotericin B

An antifungal drug used to treat infection.

\* Amputation

Surgery to remove part or all of a limb or appendage.

\* Amsacrine

An anticancer drug that belongs to the family of drugs called topoisomerase inhibitors.

\* Amylase

An enzyme that helps the body digest starches.

\* Amyloidosis

A group of diseases in which protein is deposited in specific organs (localized amyloidosis) or throughout the body (systemic amyloidosis). Amyloidosis may be either primary (with no known cause) or secondary (caused by another disease, including some types of cancer). Generally, primary amyloidosis affects the nerves, skin, tongue,

joints, heart, and liver; secondary amyloidosis often effects the spleen, kidneys, liver, and adrenal glands.

\*Analgesic

A general term for any drug that relieves pain.

\*Androgen

A male hormone, sometimes used in the treatment of metastatic breast cancer.

\*Anecdotal Evidence

These are reports of individual cases of treatments having an effect on breast cancer. These stories are interesting and may lead to valid treatments, but case reports do not provide scientific evidence, in and of themselves. Many alternative treatments are supported by anecdotal evidence, but they are taken in conjunction with another treatment that may have been the cause of remission. Clinical trials are set up to avoid findings that may be due to external causes. Experimental data yields empirical evidence.

\*Anemia

A lowered red blood cell count, often the result of chemotherapy. The red blood cells carry oxygen throughout the body. Lowered oxygenation in anemia results in symptoms of fatigue, shortness of breath, weakness, loss of energy, loss of appetite and skin pallor.

\*Aneuploid

Having an abnormal number of chromosomes -- a characteristic of cancer.

\*Angiogenesis

A biological process by which cancerous growths send out chemical signals to promote the growth of blood vessels to feed the tumor.

\*Anorexia

An extreme loss of appetite, caused by treatment or the cancer itself. In the extreme stages anorexia can be life threatening.

\*Antiangiogenic

Referring to a new class of substances that inhibit angiogenesis, the chemical signals sent by tumors to create their own blood supply.

\*Antibody

Immune system proteins that circulate in the blood and recognizes antigens produced by invading agents or abnormal cells.

\*Antidepressant

A drug used to relieve feelings of depression, despair and hopelessness.

\*Antemetetic or antiemetic

A drug that reduces or eliminates the nausea and vomiting associated with cancer therapies. Common examples are: Compazine, Decadron, Zofran, Kytril, Marinol, Ativan.

\* Antiestrogen

A class of drugs that bind with estrogen receptors to prevent tumor growth in cases of hormonally sensitive cancer. Tamoxifen is an example of this type of drug.

\* Antigen

Any substance that the immune system recognizes as a foreign element. These agents stimulate an immune response.

\* Antimetabolite

A type of chemotherapy drugs, the name refers to the way it disrupts cell reproduction. Examples are 5-FU and methotrexate.

\* Anthracyclines

A class of chemotherapy drugs used to inhibit or prevent the development and growth of cancerous cells

\* Apoptosis

The genetically programmed death of a cell. This process occurs in all normal, healthy body cells.

\* 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

The circular area of dark colored skin at the center of the breast that surrounds the nipple.

\* Aromatase Inhibitors

These drugs inhibit an enzyme called aromatase, which regulates estrogen production in the adrenal glands. An example of this class of drugs is anastrozole (Arimidex).

\* Ascites

An accumulation of fluid in the abdomen, usually a result of cancer in the liver or other viscera. Accumulation of fluid in the chest is called effusion. See also pleural effusion.

\* Aspirate

Fluid withdrawn from a lump, often a cyst, during aspiration.

\* Aspiration

Withdrawal of fluid from a lump, often an abscess or cyst, with a needle and a syringe.

\* Asymmetrical cells

Cells which are not proportional or not the same size.

\* Asymptomatic

Having no symptoms.

\* Atypical

This means not typical or not normal.

\* Atypical cells

Atypical cells are abnormal cells. In the breast these cells are usually found inside the milk ducts. Atypical cells do not necessarily progress to cancer, but they are known to increase a woman's risk by four to five times.

\* Atypical Hyperplasia

A benign (noncancerous) condition in which cells have abnormal features and are reproducing more rapidly than normal.

\* Autologous

This refers to using your own tissue. In autologous reconstruction, your own tissue is used to reconstruct the breast. In autologous bone marrow transplant, your own bone marrow is used.

\* Autologous Bone Marrow Transplantation

A procedure in which bone marrow is removed from a person (harvested), stored, and then given back to the same person usually following high dose chemotherapy or intensive radiation therapy.

\* Axilla

The underarm or armpit.

\* Axillary

Referring to the axilla or armpit.

\* Axillary Dissection

A diagnostic procedure which involves removal or sampling of the axillary lymph nodes in the armpit, done with breast cancer surgery to determine the Stage of the disease.

# B

## \*Benign

Indicates a condition that is not cancerous. Benign growths do not invade nearby tissue or spread to other parts of the body.

## \*Biological Response Modifiers

These act to boost the immune system. Examples are: antibodies, monoclonal antibodies, vaccines, colony stimulating factors.

## \*Biological Therapy

Treatment to stimulate or restore the ability of the immune system to fight infection and disease. Also used to lessen side effects that may be caused by some cancer treatments. Also called immunotherapy or biological response modifier (BRM) therapy.

## \*Biomarkers

Biomarkers are defined as cellular, biochemical, molecular, or genetic alterations by which a normal, abnormal, or simply biologic process can be recognized, or monitored. These substances are usually in the blood, other body fluids, or tissues when cancer is present. CA 15-3 is a common biomarker for breast cancer. New biomarkers are being researched. They are good diagnostic tools for finding out if cancer has spread or come back before symptoms appear.

## \*Biopsy

A diagnostic procedure used to obtain cells or tissues in order to examine them under a microscope to check for signs of disease. When an entire tumor or lesion is removed, it is called an excisional biopsy. If only a sample of tissue is removed, it is called an incisional biopsy. When a sample of tissue or fluid is removed with a needle, the procedure is called a core-needle biopsy or fine-needle aspiration. The core-needle biopsy removes a larger portion of the cells to be examined than the fine-needle biopsy.

## \*Bisphosphonates

This class of drugs slows bone loss later in life and strengthen bones damaged by metastases.

## \*Biotechnology

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

## \*Blood-Brain Barrier

A thin membrane that protects the spinal fluid and brain from foreign substances. It may prevent the use of some chemotherapy drugs in treating tumors in the central nervous system.

## \*Bone Marrow

The soft, fatty, sponge like tissue at the center of the long bones that produces white blood cells, red blood cells, and platelets.

#### \*Bone Marrow Biopsy

The diagnostic procedure used to determine whether cancer cells have invaded the bone marrow. This test is usually done in a doctor's office under a local anesthetic. It involves inserting a hollow needle into one of the large bones, usually the hip. The term aspiration is used when a smaller sample is taken.

#### \*Bone Marrow Depression (or Suppression)

A side effect of chemotherapy treatment, where the bone marrow isn't able to make a normal number of red and white blood cells, and platelets. This can cause immune system impairment.

#### \*Bone Marrow Harvest and Transplantation (HDC/BMT)

Bone marrow withdrawn, or "harvested," from the patient (autologous) under general anesthesia, frozen, and later transplanted (re-introduced into the blood stream) to support the patient's own bone marrow, that has been severely compromised by high dose chemotherapy (HDC). Peripheral, or circulating stem cells gathered through a process called "pheresis" are now more commonly used in most autologous transplants. See also autologous bone marrow transplant and high dose chemotherapy.

#### \*Bone Metastasis

Spread of cancer to the bone, a common site of metastatic breast cancer. Most commonly presents with pain, and can be confirmed by CT Scan, MRI and x-ray studies. Sometimes a biopsy is done to confirm the diagnosis. Treatments include radiation and chemo-hormonal therapy.

#### \*Bone Scan

A harmless radioactive substance is injected prior to this test to give a picture of the entire skeleton, showing areas of increased "uptake" of the radioactive substance. These areas are referred to as "hot spots." Bone metastases, where cells are dividing rapidly, show on a bone scan. Hot spots may also be caused by arthritis, infection or injury.

#### \*Brain Metastasis

Spread of cancer to the brain, another common site of metastatic breast cancer. Symptoms may include headaches, visual disturbances, vomiting, seizures, loss of balance and other neurological signs. Diagnosed through CT Scans and MRI, and most often treated with radiation therapy.

#### \*BRCA1

This gene was named for the fact that a mutation is associated with a higher than normal risk of developing BREast CANcer. Since not all breast cancer patients have a mutation in this or the BRCA2 gene, these are not the only genes involved in breast cancer.

#### \*BRCA2

Another gene, unrelated to BRCA1, which when mutated, is associated with higher than normal risk of developing breast and/or ovarian cancer.

#### \*Breast Calcifications

Small deposits of calcium in the breast, visible on mammograms, that are usually not signs of cancer.

\*Breast Cancer

Any cancer that starts in the breast. The primary types are: ductal carcinoma in situ (DCIS), infiltrating ductal carcinoma, invasive lobular carcinoma, lobular carcinoma in situ (LCIS), medullary carcinoma, inflammatory breast cancer (IBC) and Paget's disease of the nipple.

\*Breast Conservation Surgery

Surgery to remove the cancerous area of the breast and only a small area of normal tissue around it.

\*Breast Reconstruction

Surgery to rebuild a breast after a mastectomy.

\*Breast Self Exam (BSE)

Monthly examination and inspection of a woman's own breasts -- with breast clinical exam and mammography, an essential part of breast care.

# C

## \*CA 15-3

A tumor marker that can be monitored in the majority of patients with metastatic breast cancer, indicating the progression, regression or stability of the disease. Like all the tumor markers, it can be assessed from a blood sample.

## \*CA 27-29

A tumor marker similar to CA 15-3 above, used to monitor disease progression in metastatic breast cancer. Also known as the Truquant test.

## \*CA 125

A tumor marker used to monitor ovarian cancer, highly predictive of recurrence for most ovarian cancer patients.

## \*Cachexia

A so-called "wasting syndrome" that often accompanies the very advanced stages of cancer. This general lack of nutrition is characterized by weight loss, emaciation, weakness and fatigue, and loss of appetite.

## \*Calcifications

Small calcium deposits that are visible in a mammogram. Usually not indicative of cancer, but when found in certain clusters may indicate a possibility of the existence of breast cancer.

## \*Cancer

A term for any of more than 100 different diseases in which abnormal cells divide without control. Cancer cells can invade nearby tissues and can migrate through the bloodstream and lymphatic system to other parts of the body.

## \*Cancer Cell

A cell that divides and reproduces abnormally, with uncontrolled growth, and that may spread to other parts of the body.

## \*Carcinoma

Cancer that begins in the skin or in tissues that line or cover internal organs.

## \*Carcinogen

Any substance or agent that can cause cancer.

## \*Cardiac dysfunction

A disease or disorder of the heart muscle

## \*Cardiac ejection fraction

The amount of blood released in the heart with each heartbeat; this may be used to measure damage of the heart muscle.

\*Cardiomyopathy

A chronic disorder of the heart muscle, which can result in heart failure, embolism, enlargement or arrhythmias. This condition may be a side effect of some drugs used in chemotherapy.

\*Case Management

A 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. The management team normally consists of all the professionals involved in the physical and emotion care of the patient.

\*Cathepsin D

A protein secreted by breast cancer cells, thought to indicate a poorer prognosis.

\*Catheter

A tube passed through the body for evacuating fluids or injecting them into body cavities. It may be made of elastic, elastic web, rubber, glass, metal, or plastic. (See Indwelling Catheter)

\*CEA (carcinoembryonic antigen)

A monoclonal tumor marker sometimes used to monitor breast cancer patients for recurrences. It may indicate other cancers and certain inflammatory conditions and is not considered specific enough to be the sole indicator.

\*Cell

A microscopic structure that is the basic unit of all living organisms.

\*Cerebrospinal fluid

Fluid which surrounds the brain and spinal cord.

\*Chemoembolization

Process by which chemotherapy drugs are delivered by infusion directly to the area of the tumor, sometimes used in treating liver metastases.

\*Chemoresistance or Chemoinsensitivity

Cancer cells develop immunity to chemotherapy drugs, and are said to be chemoresistant or chemoinsensitive.

\*Chemosensitivity Testing

Experimental in-vitro (in the laboratory) testing of tumor tissue to show its response to various cancer drugs. This test allows the physician to prescribe a drug that will work with a specific cancer, avoiding chemotherapy treatments that will be ineffective. Although it is extremely promising, many physicians feel this testing process is not yet accurate enough for general use.

\*Chemosensitizers

Drugs or chemicals that enhance chemotherapy's effects.

\*Chemotherapy

Treatment with anticancer drugs or chemicals that are destructive to cells and tissues.

\*Chromosome

A DNA molecule containing genes arranged end-to-end in a double helix structure.

\*Chronic

A long term or constant condition.

\*Clinical Breast Exam (CBE)

A screening exam performed by a qualified medical professional.

\*Clinical Trial

A research study conducted to test a new drug or treatment. Each study is designed to test a new method of screening, prevention, diagnosis, or treatment of a disease. The clinical trial should identify any negative side effects associated with the method being tested.

\*Colony-Stimulating Factors (CSF)

These are substances that stimulate the production of blood cells. Colony-stimulating factors include granulocyte colony-stimulating factors (also called G-CSF and filgrastim), granulocyte-macrophage colony-stimulating factors (also called GM-CSF and sargramostim), and promegapoeitin.

\*Combination Chemotherapy

Using more than one kind of chemotherapy drug is often more effective than a single agent, because each drug acts in a different way on the cancer reproductive process. This makes it less likely that cells resistant to treatment will survive, or that cells that do survive will be able to repair damage caused to them by the chemo.

\*Comparison Films

By comparing present mammography films to past films, the surgeon is able to see changes over time in the breast tissue.

\*Complete Blood Count (CBC)

A blood test that gives results of white and red cell counts, platelets, hemoglobin and other factors rather than testing for a single factor..

\*Consolidation Strategies

These plans attempt to make sure that cancer cells at previous tumor sites are not able to recur by means of ongoing treatment.

\*Continuous Infusion

A drug or drugs that are administered continuously, for example, some kinds of chemotherapy or pain medications, can be taken through an infusion pump worn by patients 24 hours a day.

\*Core biopsy

Using a large bore needle and a syringe to remove tissue or fluid from a lump or a cyst for microscopic analysis.

\*CT Scan (also called CAT Scan)

Computerized axial tomography, a diagnostic test, is a computerized multiple x-ray technique that shows cross sections or a complete three dimensional view of the entire body. Much more detailed than x-rays, this procedure can produce images of minutely detailed structures anywhere in the body for analysis. It usually does not require injection of a radioactive or dye contrast medium.

\*Cyclophosphamide(s)

A class of chemotherapy drugs that promotes cancer cell death.

\*Cyst

A round, smooth, fluid filled sac or capsule that is abnormal but usually noncancerous. A breast cyst often changes size with the menstrual cycle and caffeine consumption.

\*Cytology

The study of cells.

\*Cytotoxic

A substance that causes cells to die.

# D

## \*Dense Tissue

The breast is composed of fat and fibroglandular tissue. 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

The evaluation of all tests to clarify abnormal results.

## \*Differentiation

The degree to which a cancer cell resembles a normal cell. Poorly differentiated cancer cells are usually more aggressive and harder to treat.

## \*Diphenhydramine

An antihistamine drug, that helps against allergic reactions, particularly those that cause breathing difficulties (Benadryl®).

## \*DNA (Deoxyribonucleic acid)

Amino acid based part of every body cell that carries our genetic information.

## \*Dose-Response Ratio

The concept that treatment effectiveness increases with higher doses of chemotherapy drugs.

## \*Doubling Time

The time it takes cancer cells to reproduce themselves, and tumors to double in size. The range of doubling time for breast cancer cells is from 23 to 209 days.

## \*Drug Resistance

When cancer cells are insensitive to cancer drugs, either initially or as a result of prior treatment, they are said to be resistant. "Cross resistance" occurs when cancers develop resistance to a drug after exposure to a related drug.

## \*Duct

A structure in the breast through which milk passes from the glands to the nipple.

## \*Ductal Ectasia

A 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, but is not usually related to a cancerous condition.

## \*Ductal Carcinoma In Situ (DCIS)

Abnormal cells confined to the breast ducts. These areas often show microcalcification on a mammogram. This condition may also be called intraductal carcinoma.

### \*Ductal Lavage

Ductal lavage is a minimally invasive method of collecting cells inside the milk ducts. The cells are analyzed to determine whether they are normal or abnormal (also known as "atypical"). The presence of atypical cells is a known indicator of increased breast cancer risk. Ductal lavage is used with women who already have some general breast cancer risk factors, and are looking for additional information about their risk level to aid in decision-making about risk reduction options such as closer surveillance, drug therapy and preventative mastectomy.

### \*Dyspnea

Shortness of breath, or difficulty breathing. This is a common side effect of some cancer drugs.

## E

### \*Eczema

A skin irritation or inflammation characterized by either dry or wet sore areas, and often accompanied by burning or itching.

### \*Edema

Swelling due to an accumulation of fluid in body tissues, often a result of some hormonal therapies. See lymphedema.

### \*Effusion

An accumulation of fluid in the body cavities, with metastatic breast cancer most commonly manifested by pleural effusion, where fluid accumulates in the pleural cavity surrounding the lungs. This can be relieved by thoracentesis where the fluid is drained through a hollow needle, and biopsied for evidence of malignant cells.

### \*Erythrocytes

See red blood cells.

### \*Erythropoietin

Epogen, Procrit. A growth factor that promotes the red blood cell count and reduces the need for transfusions.

### \*Estrogens

A type of human hormone that promotes and regulates female sex characteristics.

### \*Estrogen Dependent

A tumor that grows, or grows more rapidly, in the presence of estrogen. This is considered a positive indicator, since it permits hormonal treatment for control of the tumor, increasing options for treatment.

### \*Estrogen Receptor Positive (or Negative)

This is often written as ER+ or ER- and is a measure of the degree to which a given tumor is dependent upon estrogen for its growth, measured by an Estrogen receptor assay (ERA). The number of hormone receptors on the tumor are measured to determine this. See also progesterone receptors.

### \*Estrogen Receptor Test

Test on breast tissue to determine if a tumor is Estrogen Receptor Positive (or Negative).

### \*Extravasation

The leakage of a drug administered intravenously into the tissue outside the vein.

# F

## \*Fat Necrosis

A benign breast change where a firm, irregular mass forms as a result of trauma to the fatty tissue. It may appear years after the insult. The injury causes the fat in the breast to become inflamed and form round, firm lumps which may or may not be painful. The skin around them may appear red or bruised.

## \*Fatigue

Feeling of extreme tiredness, weariness, or exhaustion. This is found in metastatic breast cancer patients in connection with treatments or undiagnosed cancer progression. Anemia from metastases to the bone marrow and other causes, tissue repair following radiation treatment, bone marrow depression associated with chemotherapy treatment, inadequate nutrition, depression and anxiety are some of the more common causes.

## \*Fibroadenoma

Benign masses seen in mammograms most common in women in their 20's and 30's. These occur more frequently in African American women. They are firm, rubbery, movable and often rounded.

## \*Fibrocystic Changes

A term referring to a common non-specific condition of the breast. The condition usually is not cancer, but a benign change in the breast tissue due to cyclical hormones. 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 age 35 to 50 years old. Both breasts are usually involved and multiple cysts of many sizes are common.

## \*Final Diagnosis

A final determination reached from evaluating signs, symptoms and laboratory findings. Treatments are based on these findings.

## \*Fine Needle Biopsy/Cyst Aspiration

Removal and evaluation of breast tissue or cystic fluid using a very thin needle.

## \*First-line Treatment

Treatment given following adjuvant treatment, when there is a recurrence.

## \*Flow Cytometry

A test of cancer cells to determine the number that are in the S-Phase or dividing stage, and to look at the DNA content, called "ploidy." These factors are correlated to aggressiveness of tumor growth.

# G

## \*G-CSF

Neupogen, or granulocyte colony-stimulating factor, that helps the white cells recover rapidly following chemotherapy treatments.

## \*Gene

The fundamental unit of DNA that controls inherited characteristics.

## \*Gene Alteration

Any change or difference in the usual makeup or function of a gene, including a modification in the formation of proteins.

## \*Grading

A way of describing the aggressiveness of cancer cells.

## \*Growth Factors

See colony-stimulating factors.

\*Gynecomastia: This is an enlargement of the male breast. It may be related to Klinefelter's syndrome, chronic diseases such as heart disease, or a variety of drugs used to treat chronic diseases. Men should be aware of the link between breast cancer and this condition.

# H

## \*Hair Follicles

Shafts or openings on the surface of the skin from which hair grows.

## \*Halsted Radical Mastectomy

Removes the breast, chest muscles, all of the lymph nodes under the arm, and some additional fat and skin.

## \*Hematologist

A physician specializing in blood diseases. Many medical oncologists specialize in hematology.

## \*HER-2/neu

Also known as c-erbB-2, this gene is thought to contribute to some breast cancers. Anti-HER-2/neu humanized monoclonal antibody (Herceptin) has been effective in combating breast cancer.

## \*HER2 Positivity

A phrase used to describe the presence of HER2 protein overexpression in a cell or tissue.

## \*HER2 Protein Overexpression

The excess production of the HER2 growth factor receptor (cell-surface receptor) that results from a change in the HER2 gene in cancerous cells.

## \*HER2 Receptor

Also called the HER2 growth factor receptor, it is one of the many proteins on a cell's surface that signals the cell to divide

## \*Herceptin

The anti-HER-2/neu drug developed to treat breast cancer patients who over-express HER-2/neu.

## \*Heterogeneity

Referring to the fact that there are many different types of cells with differing properties in any breast cancer.

## \*Hickman Catheter

An external line (tubing) with one end outside of the chest and the other inserted into a large chest vein and threaded to the heart, used for drawing blood and administering medications painlessly. It can be left in place for many months or years, but must be carefully cared for to avoid infections.

## \*High-Dose Chemotherapy

A form of treatment, still in clinical trials, used with high risk (Stage III) and metastatic breast cancer patients in which the goal is to eradicate all the cancer cells in the body by using very high doses of chemotherapy. Without the use of growth factors and transplantation of the patient's own stem cells, patients could not survive the treatment.

Also referred to by the rescue procedures such as bone marrow transplant (HDC/BMT) or autologous bone marrow transplant (HDC/ABMT).

\*Hormone Receptor Test

A test to measure the amount of certain proteins, called hormone receptors, in cancer tissue. Hormones can attach to these proteins. A high level of hormone receptors may mean that hormones are needed for the cancer to grow making the tumor more sensitive to hormonal therapy.

\*Hormonal Therapy

Treatment of cancer by removing, blocking, or adding hormones. Also called endocrine therapy. For example giving an anti-estrogen, to help block the estrogen hormone uptake in tumors.

\*Hormones

Chemicals produced by glands in the body and circulated in the bloodstream. Hormones control the actions of many cells and organs.

\*Hospice

First begun in England, these programs are usually in the home or in a special hospital or unit of a hospital. They provide services by a team of professionals for the care of terminally ill patients and their families. The goal is to improve quality of life, pain control and care of other symptoms. One aspect is to provide emotional support and make the dying process easier for the patient and caregivers.

\*Hyperalimentation

Also called total parenteral nutrition (TPN), this means giving nutrition intravenously, for patients unable to eat normally.

\*Hypercalcemia

Bone loss from progressing bone metastases can result in higher levels of calcium in the blood, causing this metabolic disorder, characterized by fatigue, muscle weakness, nausea, anorexia, constipation, and, in severe, cases disorientation and coma. New medications like Aredia are used in its treatment.

# I

## \*Immune System

A multi-faceted, incompletely understood system which functions to protect the body from any foreign invaders, such as bacteria, viruses, toxins and cancers.

## \*Immunohistochemistry (IHC)

A method that uses antibodies to identify, locate, and stain specific protein molecules in tissue sections (using a microscope).

## \*Immunosuppressed

A lowered resistance to disease, often because of chemotherapy treatments.

## \*Immunotherapy

Experimental treatments that attempt to use the body's own defenses to control the cancer. Also known as immunomodulation.

## \*Incidence

The number of instances of illness commencing during a given period in a specified population. More generally, the number of new cases of a disease in a defined population, within a specified period of time.

## \*Induction Chemotherapy

This treatment is given prior to high-dose chemotherapy. The purpose is to assess the patient's response to treatment before administering very high doses, and to decrease the tumor burden, the amount of cancer in the body, prior to high-dose chemotherapy, thus giving the best chance for remission.

## \*Indwelling Catheter

A tube which is threaded through a large chest vein to the heart so that blood can be drawn and drugs, including those for chemotherapy and medications for other purposes, can be given without needing to repeatedly find a vein. Indwelling catheters can be either the external type, such as the Hickman catheter, or subcutaneous (under the skin). This latter type is generally called a port.

## \*Infertility

The inability to produce children.

## \*Infiltrating Ductal Carcinoma

The most common form of invasive breast cancer.

## \*Infiltrating Lobular Carcinoma

Less common, this breast cancer originates in the lobules, rather than the ducts of the breast.

\*Inflammatory Breast Cancer (IBC)

A less common, very aggressive form of breast cancer. The breast looks inflamed because the cancer blocks the lymph nodes in the breast tissue causing swelling, a red appearance and warmth. The skin may show ridges or may have a pitted, peau d'orange (like the skin of an orange) appearance.

\*Informed Consent

The legal right of a patient to be informed by medical personnel about a treatment or a procedure before giving consent to undergo it. With experimental treatments and most surgical procedures, this is put into writing.

\*Infusion

Administering drugs into a vein or artery slowly, over a period of time, sometimes using a pump. Note: Both infusion and injection can be intra-arterial, into an artery; intra-muscular, into a muscle; intra-peritoneal, into the abdominal cavity; intra-pleural, into the space around the lungs; intra-thecal, into the spinal fluid; or intravenous, into a vein.

\*Injection

Administering drugs into a vein or artery all at once. See the note under infusion.

\*In-situ

A breast change where highly atypical or cancerous cells are located only in the ducts or lobules; they have not invaded surrounding breast or lymph tissue.

\*Intrathecal

Within the spinal canal or within a sheath. This can refer to the use of a catheter to administer drugs to patients undergoing chemotherapy.

\*Invasive or Infiltrating Cancer

The cancer cells have spread from the original site and invaded other tissue in the breast and/or lymph system.

\*In vitro

Literally, "in glass." Taking place outside the body, in a laboratory.

\*In vivo

Taking place in the body, or in another living organism.

\*Ipsilateral

On the same side. Used in Staging if the ipsilateral lymph nodes are involved it means the lymph nodes on the same side of the body as the affected breast have cancer cells growing. Contralateral means the opposite side of the body. Your left axilla (underarm) is contralateral to your right breast.

# K

## \*Klinefelter's syndrome

Men with this syndrome have an extra sex chromosome and do not produce enough testosterone. It is a risk factor for breast cancer in men.

# L

## \*Lesion

A general term indicating a change in the structure of any body tissue, often used as a synonym for cancer.

## \*Leukopenia

Decrease in the white cell count in the blood. White blood cells help to fight infection.

## \*Liver Metastases

Breast cancer can metastasize to the liver, which often presents as being enlarged or tender, and can be diagnosed by a liver scan, ultrasound, CT Scan and alkaline phosphatase tests.

## \*Liver Scan

A radioactive tracer is injected into the bloodstream that enhances the x-ray picture of the liver.

## \*Lobe

A part of an organ such as the liver, lung, breast, or brain. Each breast contains 15 - 20 lobes.

## \*Lobular Carcinoma In Situ (LCIS)

Abnormal cells found in the lobules of the breast. This condition seldom becomes invasive cancer. Lobular carcinoma in situ increases the risk of developing breast cancer in either breast.

## \*Lobule

A small lobe or subdivision of the lobes of the breast.

## \*Local Therapy

Treatment that affects cells in the tumor and the area close to it.

## \*Lumpectomy

Removal of a malignant lump with only a small amount of normal breast tissue around it.

## \*Lung Metastases

Because all the blood is filtered through the lungs, breast cancer also spreads to the lung and pleura surrounding the lung. Shortness of breath and a persistent cough are among the symptoms. Scans and x-ray are commonly used for diagnosis, although sometimes a lung biopsy may be advised for definitive diagnosis.

## \*Lymph

The almost colorless fluid that travels through the lymphatic system and carries cells that help fight infection and disease.

#### \*Lymph Node

A rounded mass of lymphatic tissue that is surrounded by a capsule of connective tissue. Also known as a lymph gland. Lymph nodes are spread out along lymphatic vessels and they contain many lymphocytes, which filter the lymphatic fluid (lymph).

#### \*Lymphatic System

The tissues and organs that produce, store, and carry white blood cells that fight infection and other diseases. This system includes the bone marrow, spleen, thymus, and lymph nodes and a network of thin tubes that carry lymph and white blood cells. These tubes branch, like blood vessels, into all the tissues of the body.

#### \*Lymphedema

A condition in which excess lymph collects in tissue and causes swelling. It may occur in the arm or leg after lymph vessels or lymph nodes in the underarm or groin are removed.

# M

## \*Magnetic Resonance Imaging (MRI)

See MRI

## \*Malaise

A state of extreme tiredness and lack of well-being.

## \*Malignant

Cancerous - a growth with a tendency to destroy nearby tissue and spread to other parts of the body.

## \*Mammogram

An x-ray of the breast.

## \*Mammography

An x-ray study of the breast.

## \*Mastectomy

Surgery to remove as much of the breast tissue as necessary to insure that all cancer cells are caught.

## \*Medicare

The national health program through which certain medical and hospital expenses are paid for from Federal (mainly social security) funds. The program is open to individuals over the age of 65 and individuals with permanent disabilities.

## \*Menopause

The hormonal phase in women when estrogen production decreases. It is marked by a woman's menstrual cycle stopping for at least a year. This may also be called "change of life."

## \*Menstrual cycle

The monthly cycle of hormonal changes from the beginning of one menstrual period to the beginning of the next.

## \*Meperidine

A drug used to relieve pain and anxiety (Demerol®).

## \*Metastatic Breast Cancer

Also referred to as invasive or infiltrating, it is breast cancer that has spread to other sites in the body.

## \*Metastasis

Cancer that travels from one part of the body to another. Cancer cells metastasize and form secondary growths. The cells in the metastatic tumor will be the same type as the primary tumor. That is why breast cancer that has metastasized to the bone or liver is still breast cancer. If you are questioning the spelling -- the *plural* is metastases.

\*Microcalcifications

Tiny deposits of calcium in the breast that cannot be felt but can be detected on a mammogram. A cluster of these very small specks of calcium may indicate that cancer is present.

\*Modified Radical Mastectomy

Surgical procedure which removes the breast, the lymph nodes under the arm, and the lining over the chest muscles (but leaves the muscles).

\*Molecular Biology

A relatively new field of scientific investigation where the basic structure and metabolism of the cancer cell is being studied.

\*Monoclonal Antibody

An antibody produced by making multiple copies of a single cell in a laboratory. Usually drawn to cancer cells specifically, they are used to target treatments. An example is the HER-2/neu monoclonal antibody. Trastuzumab (Herceptin) deactivates Her-2/neu at the genetic level and does not produce the toxic side effects of chemotherapy.

\*MRI (Magnetic Resonance Imaging)

A computerized diagnostic process, using radio waves and powerful magnets to provide three dimensional images of the body. It is higher definition than a CT Scan and considered safer, because it does not use radiation or contrast dyes.

\*Mucositis

See stomatitis.

\*MUGA scan

Multiple-gated acquisition (MUGA) scan is a non-invasive test that uses a radioactive isotope called technetium to evaluate the functioning of the heart's ventricles.

## N

### \*Nadir

The lowest point in white cell, red cell, and platelet counts following treatment, usually ten days to two weeks following chemotherapy or radiation. Patients are cautioned to be extra careful with exposure to infection and avoiding anything that could cause bleeding during this time. In some cases, growth factors are given to encourage the bone marrow to regenerate cells more rapidly.

### \*Necrosis or Necrotic

Referring to tissue that has died.

### \*Negative Predictive Value

The proportion of cases with a negative test who are found by diagnostic evaluation to not have the disease in question. The higher the negative predictive value, the lower the number of false negative results.

### \*Neoadjuvant Therapy

Any treatment given before the primary treatment. Neoadjuvant therapy can be chemotherapy, radiation therapy, or hormone therapy.

### \*Neupogen

See G-CSF.

### \*Neutropenia

A low white blood cell count of neutrophils, the cells most crucial in the body's fight against infection. This is often a side effect of chemotherapy drugs. Neutropenia affects as many as one in three patients receiving chemotherapy treatment for cancer. Cancer cells grow and divide very quickly. Chemotherapy works by acting mainly on quickly dividing cells. But these drugs can't tell the difference between a growing tumor and some normal cells, such as neutrophils, the cells in your blood that surround and destroy bacteria in your body, which also divide quickly. Neutrophils are also killed by the chemotherapy. This is a potentially serious complication, and patients should avoid exposure to situations that may put them at risk of infection while their immune system is compromised. Patients with Neutropenia can develop fever and infections. They may need to be hospitalized and given very strong and costly antibiotics.

### \*Nipple Discharge

Fluid, blood or mucous secretions coming from the nipple.

### \*No Evidence of Disease (NED)

Disappearance of the signs and symptoms of cancer. When this happens, the disease is said to be "in remission." A remission may be temporary or permanent.

## O

### \*Oncogene

Any gene believed to be responsible for the uncontrolled cell growth of cancers.

### \*Oncologist

A doctor who studies the physical, chemical, and biological properties of tumors, and researches their development, diagnosis, treatment, and prevention. A doctor who specializes in treating cancer.

### \*Oophorectomy

This procedure, which involved surgical removal of the ovaries, used to be a common treatment for metastatic breast cancer prior to the newer estrogen and progesterone antagonists.

### \*Orchiectomy

Surgical removal of the testicles in male breast cancer patients. This procedure is not as prevalent since the discovery of the newer, hormonal drugs.

### \*Osteoblastic

A type of bone metastasis in which there is abnormal bone growth. Both osteolytic and osteoblastic lesions can occur in the same person.

### \*Osteolytic

A type of bone metastasis in which the bone is eaten away, producing a characteristic "moth-eaten" appearance. If left untreated, there is a high chance of fractures. See osteoblastic.

### \*Ovarian Ablation

Surgery, radiation or drug treatment to stop ovarian egg and hormone production as a treatment for breast cancer. This procedure is not as prevalent since the discovery of the newer, hormonal drugs.

### \*Ovaries

The pair of female reproductive glands in which the ova, or eggs, are formed. The ovaries are located in the pelvis, one on each side of the uterus. The ovaries also produce hormones.

### \*Overexpression

The excess production of growth factor receptors (cell-surface receptors) that results from alteration of a gene in cancerous cells.

# P

## \*p53

A "gatekeeper" gene for many cancers. Mutations in this gene tend to make cells grow without normal controls.

## \*Paclitaxel

A class of chemotherapy drugs that prevents cancer cell division and growth and promotes cancer cell death.

## \*Paget's Disease

About three percent of breast cancer patients have this form of the disease, involving the nipple.

## \*Palliative

That which relieves pain and other symptoms of disease, or controls the disease, without likelihood of cure. In palliative care, the patient's quality of life and comfort is the focus of concern.

## \*Palpation

Examining by pressing the surface of the skin to feel the organs or tissues underneath.

## \*Partial or Segmental Mastectomy

Removes the tumor, some of the normal breast tissue around it and the lining over the chest muscle below the tumor. Some of the axillary lymph nodes may also be removed.

## \*Pathologist

A specialist who studies all aspects of disease with an emphasis on the nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from disease processes A doctor who verifies the identity of diseases by examining cells and tissue samples.

## \*Pathology lab

The location, or laboratory, where pathologists study and examine cell and tissue samples for signs of abnormality and disease.

## \*Peripheral Stem Cell Transplantation

A method of replacing blood forming cells destroyed by high dose cancer treatment. Stem cells, immature blood cells in the circulating blood, are similar to those in the bone marrow. They are given after treatment to help the bone marrow recover and resume production of healthy blood cells. Transplantation may be autologous (the person's blood cells harvested earlier), allogeneic (blood cells donated by someone else), or syngeneic (blood cells donated by an identical twin). This procedure may also be called peripheral stem cell support.

\*Phase I Clinical Trial

Following development, in vitro and animal testing, a drug will be tested on humans. This is the first level of the clinical trials procedure by which new drugs or combinations of drugs are tested and approved. A small number of patients are given a new, experimental treatment. The focus is on determining safety, dosage and short-term effectiveness.

\*Phase II Clinical Trial

The second level of clinical trials in human beings enrolls a larger number of participants than Phase I. Phase II trials also focus on effectiveness and on side effects over a longer period of time.

\*Phase III Clinical Trial

The final phase of clinical trials testing. The experimental treatment is compared with an established testing treatment for safety, effectiveness, dosage and side effects. These trials involve large number of patients in many treatment centers. They are often "double-blinded" so that neither researchers nor patients know which treatment is being administered.

\*Photo-dynamic Therapy (PDT)

A new therapy that uses a light source to activate targeted delivery of a chemotherapy drug. It has been used with skin metastases with some success.

\*Physician's Data Query (PDQ)

A database maintained by the National Cancer Institute providing the latest treatment information.

\*Placebo

An substance used in place of an active drug in trials to compare the effects. It is an established clinical fact that placebos show some success, possibly as a result of patient expectations. Because of this "placebo effect," the best clinical trials are "double-blinded," meaning that neither patients nor researchers know who is receiving the drug until the conclusion of the study. Clinical trials where a new treatment is being tested against established treatments do not use placebos.

\*Plastic Surgeon

A surgeon who specializes in reducing scarring or disfigurement. Breast reconstructive surgery is performed by plastic surgeons.

\*Platelet

Disc shaped blood cell which aids in blood clotting.

\*Pleura

The membranous lining around the lungs.

\*Pleural Effusion

Fluid that has accumulated around the lungs in the pleural cavity, often the result of metastatic spread of cancer to the lungs. See effusion.

\*Polychemotherapy

See combination chemotherapy

\*Positive Predictive Value

The proportion of cases with a positive test who are found by diagnostic evaluation to have breast cancer. The higher the positive predictive value, the lower the number of false- positive results. 10 cancers out of 100 abnormal evaluations equals a positive predictive value of 10%.

\*Positron Emission Tomography Scan (PET Scan)

A computerized image of the metabolic activity of body tissues used to determine the presence of disease. Studies report that PET scans are more accurate than mammograms or CAT scans in discovering very early stage breast cancer

\*Prevalence

The number of instances of a given disease (e.g. breast cancer) in a given population at a designated time.

\*Preventive Care

Concept of health care in which an emphasis is placed on education and on early detection of medical conditions. This usually includes encouraging routine physical examinations, diagnostic tests, immunizations, physical conditioning and nutrition programs.

\*Primary tumor

Site where tumor first appeared.

\*Progesterone

A female hormone.

\*Prognosis

The likely outcome or course of a disease.

\*Prosthesis

An artificial replacement of a part of the body.

## Q

## R

### \*Rad

Unit of measurement that describes a dose or radiation absorbed by a body.

### \*Radiation Therapy

The use of high energy radiation from x-rays, neutrons, and other sources to kill cancer cells and shrink tumors. Radiation may come from a machine outside the body, external beam radiation therapy, or from material called radioisotopes. Radioisotopes produce radiation and are surgically placed in or near a tumor or near cancer cells. This type of radiation treatment is called internal radiation therapy, implant radiation, or brachytherapy. Systemic radiation therapy uses a radioactive substance, such as a radiolabeled monoclonal antibody, that circulates throughout the body. Also called radiotherapy.

### \*Radical Mastectomy

This procedure is also called the "Halsted Radical". Removes the breast, chest muscles, all of the lymph nodes under the arm, and some additional fat and skin.

### \*Recurrence

Return of cancer cells after remission.

### \*Regression

Growing smaller or disappearing.

### \*Remission

Disappearance of the signs and symptoms of cancer. When this happens, the disease is said to be "in remission." A remission may be temporary or permanent. (See NED)

### \*Risk Factor

Anything that increases the probability of developing a disease.

# S

## \*Sarcoma

Malignant tumor arising in the bone, cartilage, fibrous tissue or muscle.

## \*Screening

Preventive checking for disease when there are no symptoms.

## \*Screening Mammogram

A preventive mammogram, normally consisting of two x-rays of each breast, with interpretation for a women with no presenting symptoms of breast cancer.

## \*Segmental Mastectomy

The removal of the cancer as well as some of the breast tissue around the tumor and the lining over the chest muscles below the tumor. Some of the lymph nodes under the arm may be taken out. Sometimes this is called a partial mastectomy.

## \*Sensitivity

Sensitivity is the proportion of people with a disease in the tested population who are identified. Sensitivity is a measure of the probability that any given case will be identified by the test. A test that reports that everyone has breast cancer would not be a sensitive test. One that identifies only those with breast cancer is an extremely sensitive test.

## \*Sentinel Lymph Node Biopsy

In this procedure a dye or radioactive substance is injected near the tumor. This injected material goes into the sentinel lymph nodes, the first lymph nodes that cancer is likely to spread to from the tumor. A surgeon then looks for the dye or uses a scanner to find the sentinel lymph nodes and removes one or more of them in order to check for the presence of cancerous cells.

## \*Specificity

Specificity is the proportion of healthy people who are identified by the screening test. It gives an idea of the probability of correctly identifying a person who does not have a disease with a screening test.

## \*Stage

A distinct phase in the course of a disease. Stages of breast cancer are typically defined by the localization or spread of the tumor. In situ, localized, regional or distant spread usually define which stage the cancer is in.

## \*Stage I

The cancer is no bigger than 2 centimeters (about 1 inch) and has not spread outside the breast. This stage is the ideal time to find the cancer. Treatments are most effective at this stage.

\*Stage II

The cancer is not bigger than 2 centimeters, but has spread to the lymph nodes, or the cancer is between 2 and 5 centimeters and may or may not have spread to the lymph nodes. If the cancer is bigger than 5 centimeters, it 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 usually the chest wall, including the ribs and muscles in the chest.

\*Stage IV

The most serious stage where the breast cancer has spread to other organs of the body, most often the bones, lungs, liver or brain.

\*Stem cell

All blood cells arising in the bone marrow.

\*Stereotactic Biopsy

An x-ray guided method to localize and sample suspicious lesions discovered on mammography. It is generally used to sample small, non-palpable breast lumps or lesions using fine-needle aspiration for cytology or core-needle biopsy for histology.

\*Stereotactic Localization

A diagnostic method used to locate the precise area for breast biopsy.

\*Surgery

A procedure to remove or repair a part of the body or to find out if disease is present.

\*Surgical Consult

A meeting between the breast cancer patient and surgeon to discuss the client's condition. This is not necessarily followed by surgery. Many surgical consults result in a biopsy and a diagnosis of benign breast disease.

\*Surgical Pathology

This is a diagnostic procedure performed in some cancer cases in order to verify the pathology of the disease processes that are surgically accessible for treatment or diagnosis.

\*Survivor

Anyone who has received a cancer diagnosis. This is true whether treatment is in progress or has been completed.

\*Synchronous

A lesion or mass that appears at the same time as the original mass that is detected by clinical breast exam or mammogram. Two tumors appearing at the same time are synchronous and one is not a metastasis of the other.

\*Systemic  
Affecting the entire body.

# T

## \*Taxol

Cancer drug from the Pacific Yew tree.

## \*Terminal

In cancer, very limited life expectancy.

## \*Tissue

A group of cells that together perform specific functions such as muscle, fat or fibrous connective tissue.

## \*Total Mastectomy

Removal of the breast tissue but not the muscle underlying the breast. Also called simple mastectomy.

## \*Treatment Status

With a diagnosis of cancer, the treatment status is reported to clarify the exact status of the patient's treatment to all members of the health care team.

## \*Tumor

An abnormal mass of tissue that results from improper signals to the cell causing the cell to multiply too quickly. A tumor may be benign which means it is not cancerous, or malignant which is cancerous.

## \*Tumor Block

A section of tissue biopsy preserved in wax for future study.

## U

### \*Ultrasound

High frequency sound waves forming a pattern of echoes that are electronically translated into a visual image. Can help distinguish between solid masses and cysts.

### \*Ultrasonography

A study in which sound waves (ultrasound) are bounced off tissues and the echoes are converted into a picture (sonogram).

## V

### \*Viscera

Term used to describe the internal organs of the abdominal cavity.

## W

### \*White Blood Cells

Cells that help the body fight infection and disease.

## X

### \*X-ray

Short length high-energy radiation used in low doses to diagnose diseases and in high doses to treat metastatic breast cancer to control and stabilize bone metastases.

## Z