

## **Glossary of Commonly Used Terms Related to Thyroid Cancer**

Source: adapted from National Cancer Institute. For more information visit:  
<http://cancer.gov/dictionary/>

### **A**

#### **abnormal**

Not normal. In referring to a lesion or growth, may be either cancerous or premalignant (likely to become cancer)

#### **acute**

Symptoms or signs that begin and worsen quickly; not chronic.

#### **adenocarcinoma (AD-in-o-kar-sin-O-ma)**

Cancer that begins in cells that line certain internal organs and that have glandular (secretory) properties.

#### **adenoma (ad-in-O-ma)**

A noncancerous tumour.

#### **adjunctive therapy**

Another treatment used together with the primary treatment. Its purpose is to assist the primary treatment or increase their comfort.

#### **adverse effect**

An unwanted side effect of treatment.

#### **aggressive**

A quickly growing cancer.

#### **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 the taking of dietary supplements, vitamins, and herbal preparations; the drinking of special teas; and practices such as massage therapy, magnet therapy, spiritual healing, and meditation. Some of these practices may also be used as complementary therapies to the primary or standard one.

#### **anaplastic (an-ah-PLAS-tik)**

A term used to describe cancer cells that divide rapidly and have little or no resemblance to normal cells.

#### **anaplastic thyroid cancer (an-a-PLAS-tik)**

A rare, aggressive type of thyroid cancer in which the malignant (cancer) cells look very different from normal thyroid cells.

**anemia (a-NEE-mee-a)**

A condition in which the number of red blood cells is below normal.

**aspirate (AS-pi-rit)**

Fluid withdrawn from a lump or a cyst, often for biopsy purposes.

**aspiration (as-per-AY-shun)**

Removal of fluid from a lump, often a cyst, with a needle and a syringe.

**assay (AS-say)**

A laboratory test to find and measure the amount of a specific substance.

**asymmetry**

Lack or absence of balanced proportions between parts of a thing.

**asymptomatic**

Having no signs or symptoms of disease.

**atypical hyperplasia (hy-per-PLAY-zha)**

A benign (noncancerous) condition in which cells have abnormal features and are increased in number.

**B**

**benign (beh-NINE)**

Not cancerous; does not invade nearby tissue or spread to other parts of the body.

**benign tumour (beh-NINE)**

A noncancerous growth that does not invade nearby tissue or spread to other parts of the body.

**C**

**cancer**

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

**carcinogen (kar-SIN-o-jin)**

Any substance that causes cancer.

**carcinoma (kar-sin-O-ma)**

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

**carcinoma in situ (kar-sin-O-ma in SYE-too)**

Cancer that involves only the cells in which it began and that has not spread to neighbouring tissues.

**CAT scan**

A series of detailed pictures of areas inside the body, taken from different angles; the pictures are created by a computer linked to an x-ray machine. Also called computerized axial tomography, computed tomography (CT scan), or computerized tomography.

**catheter (KATH-i-ter)**

A flexible tube used to deliver fluids into or withdraw fluids from the body.

**cell**

The individual unit that makes up all of the tissues of the body. All living things are made up of one or more cells.

**cell differentiation**

The process during which young, immature (unspecialized) cells take on individual characteristics and reach their mature (specialized) form and function.

**cell motility**

The ability of a cell to move.

**cell proliferation**

An increase in the number of cells as a result of cell growth and cell division.

**chemoimmunotherapy**

Chemotherapy combined with immunotherapy. Chemotherapy uses different drugs to kill or slow the growth of cancer cells; immunotherapy uses treatments to stimulate or restore the ability of the immune system to fight cancer.

**chemotherapy (kee-mo-THER-a-pee)**

Treatment with anticancer drugs.

**clinical**

Having to do with the examination and treatment of patients.

**clinical practice guidelines**

Guidelines developed to help health care professionals and patients make decisions about screening, prevention, or treatment of a specific health condition.

**clinical series**

A case series in which the patients receive treatment in a clinic or other medical facility.

**clinical study**

A type of research study that tests how well new medical treatments or other interventions work in patients. Such studies test new methods of screening, prevention, diagnosis, or treatment of a disease. The study may be carried out in a clinic or other medical facility. Also called a clinical trial.

**clinical trial**

A type of research study that tests how well new medical treatments or other interventions work in patients. Such studies test new methods of screening, prevention, diagnosis, or treatment of a disease. The study may be carried out in a clinic or other medical facility. Also called a clinical study.

**cold nodule**

When radioactive material is used to examine the thyroid with a scanner, nodules that collect less radioactive material than the surrounding thyroid tissue are considered "cold." A nodule that is cold does not make thyroid hormone. Cold nodules may be benign or cancerous. Cold nodules are sometimes called hypofunctioning nodules.

**computerized tomography**

A series of detailed pictures of areas inside the body taken from different angles; the pictures are created by a computer linked to an x-ray machine. Also called computerized axial tomography (CAT) scan and computed tomography (CT scan).

**CT scan**

Computed tomography scan. A series of detailed pictures of areas inside the body taken from different angles; the pictures are created by a computer linked to an x-ray machine. Also called computerized tomography and computerized axial tomography (CAT) scan.

**cyst (sist)**

A sac or capsule filled with fluid.

**D****diagnosis**

The process of identifying a disease by the signs and symptoms.

**diagnostic procedure**

A method used to identify a disease.

**diagnostic trial**

A research study that evaluates methods of detecting disease.

**diffuse**

Widely spread; not localized or confined.

**distant cancer**

Refers to cancer that has spread from the original (primary) tumour to distant organs or distant lymph nodes.

**dysplasia (dis-PLAY-zha)**

Cells that look abnormal under a microscope but are not cancer.

**E****EBR (external-beam radiation) (ray-dee-AY-shun)**

Radiation therapy that uses a machine to aim high-energy rays at the cancer. Also called external radiation.

**endocrinologist (en-do-krih-NAH-lo-jist)**

A doctor who specializes in diagnosing and treating hormone disorders.

**ENT**

A doctor who specializes in treating diseases of the ear, nose, and throat. Also called an otolaryngologist.

**external radiation (ray-dee-AY-shun)**

Radiation therapy that uses a machine to aim high-energy rays at the cancer. Also called external-beam radiation.

**external-beam radiation (EBR) (ray-dee-AY-shun)**

Radiation therapy that uses a machine to aim high-energy rays at the cancer. Also called external radiation.

**F****familial cancer**

Cancer that occurs in families more often than would be expected by chance. These cancers often occur at an early age, and may indicate the presence of a gene mutation that increases the risk of cancer. They may also be a sign of shared environmental or lifestyle factors.

**fine-needle aspiration (FNA)**

The removal of tissue or fluid with a needle for examination under a microscope. Also called needle biopsy.

**focal**

In terms of cancer, limited to a specific area.

**follicular thyroid cancer (fo-LIK-yu-ler)**

Cancer that develops from cells in the follicular areas of the thyroid. One of the slow-growing, highly treatable types of thyroid cancer.

**follow-up**

Monitoring a person's health over time after treatment. This includes keeping track of the health of people who participate in a clinical study or clinical trial for a period of time, both during the study and after the study ends.

**G****genetic**

Inherited; having to do with information that is passed from parents to offspring through genes in sperm and egg cells.

**genetic counselling**

A communication process between a specially trained health professional and a person concerned about the genetic risk of disease. The person's family and personal medical history may be discussed, and counselling may lead to genetic testing.

**genetic markers**

Alterations in DNA that may indicate an increased risk of developing a specific disease or disorder.

**genetic susceptibility**

An inherited increase in the risk of developing a disease.

**genetic testing**

Analyzing DNA to look for a genetic alteration that may indicate an increased risk for developing a specific disease or disorder.

**gland**

An organ that makes one or more substances, such as hormones, digestive juices, sweat, tears, saliva, or milk. Endocrine glands release the substances directly into the bloodstream. Exocrine glands release the substances into a duct or opening to the inside or outside of the body.

**goitre**

An enlarged thyroid. It may be caused by too little iodine in the diet or by other conditions. Most goitres are not cancer.

## H

### **head and neck cancer**

Cancer that arises in the head or neck region (in the nasal cavity, sinuses, lip, mouth, salivary glands, throat, or larynx [voice box]).

### **histology**

The study of tissues and cells under a microscope.

### **Hürthle cell neoplasm (HER-tel cell)**

An uncommon type of thyroid tumour that can be benign or malignant.

### **hyperplasia (hye-per-PLAY-zha)**

An abnormal increase in the number of cells in an organ or tissue.

### **hyperthyroidism**

Too much thyroid hormone. Symptoms include weight loss, chest pain, cramps, diarrhea, and nervousness. Also called overactive thyroid.

### **hypothalamus (hye-po-THAL-uh-mus)**

The area of the brain that controls body temperature, hunger, and thirst.

### **hypothyroidism**

Too little thyroid hormone. Symptoms include weight gain, constipation, dry skin, and sensitivity to the cold. Also called underactive thyroid.

## I

### **in situ cancer**

Early cancer that has not spread to neighbouring tissue.

### **infiltrating cancer**

Cancer that has spread beyond the layer of tissue in which it developed and is growing into surrounding, healthy tissues. Also called invasive cancer.

### **invasive cancer**

Cancer that has spread beyond the layer of tissue in which it developed and is growing into surrounding, healthy tissues. Also called infiltrating cancer.

### **iodine**

An element that is necessary for the body to make thyroid hormone. It is found in shellfish and iodized salt.

### **irradiation (ih-RAY-dee-AY-shun)**

The use of high-energy radiation from x-rays, gamma rays, neutrons, and other sources to kill cancer cells and shrink tumours. Radiation may come from a

machine outside the body (external-beam radiation therapy) or from materials called radioisotopes. Radioisotopes produce radiation and can be placed in or near the tumour or in the area near cancer cells. This type of radiation treatment is called internal radiation therapy, implant radiation, interstitial radiation, or brachytherapy. Systemic radiation therapy uses a radioactive substance, such as a radiolabeled monoclonal antibody, that circulates throughout the body. Irradiation is also called radiation therapy, radiotherapy, and x-ray therapy.

**isthmus (iz-muhs)**

A narrow part inside the body that connects two larger structures, such as in the right and left lobe of the thyroid.

**L**

**laboratory test**

A medical procedure that involves testing a sample of blood, urine, or other substance from the body. Tests can help determine a diagnosis, plan treatment, check to see if treatment is working, or monitor the disease over time.

**larynx (LAIR-inks)**

The area of the throat containing the vocal cords and used for breathing, swallowing, and talking. Also called the voice box.

**latent**

Describes a condition that is present but not active or causing symptoms.

**lobe**

A portion of an organ, such as the liver, lung, breast, thyroid, or brain.

**lobectomy (lo-BEK-toe-mee)**

The removal of a lobe.

**lobule (LOB-yule)**

A small lobe or subdivision of a lobe.

**local cancer**

An invasive malignant cancer confined entirely to the organ where the cancer began.

**local therapy**

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

**localization (LO-kal-ih-ZAY-shun)**

The process of determining or marking the location or site of a lesion or disease. May also refer to the process of keeping a lesion or disease in a specific location or site.

**localized**

Restricted to the site of origin, without evidence of spread.

**lumpectomy (lump-EK-toe-mee)**

Surgery to remove the tumour and a small amount of normal tissue around it.

**lung metastases**

Cancer that has spread from the original (primary) tumour to the lung.

**lymph gland**

A rounded mass of lymphatic tissue that is surrounded by a capsule of connective tissue. Lymph glands filter lymph (lymphatic fluid), and they store lymphocytes (white blood cells). They are located along lymphatic vessels. Also called a lymph node.

**lymph node (limf node)**

A rounded mass of lymphatic tissue that is surrounded by a capsule of connective tissue. Lymph nodes filter lymph (lymphatic fluid), and they store lymphocytes (white blood cells). They are located along lymphatic vessels. Also called a lymph gland.

**lymph node dissection (limf node dis-EK-shun)**

A surgical procedure in which lymph nodes are removed and examined to see whether they contain cancer. Also called lymphadenectomy.

**lymph node mapping**

The use of dyes and radioactive substances to identify lymph nodes that contain tumour cells.

**lymphadenectomy**

A surgical procedure in which the lymph nodes are removed and examined to see whether they contain cancer. For a regional lymph node dissection, some of the lymph nodes in the tumour area are removed; for a radical lymph node dissection, most or all of the lymph nodes in the tumour area are removed. Also called lymph node dissection.

## M

### **magnetic resonance imaging (mag-NET-ik REZ-o-nans IM-a-jing)**

MRI. A procedure in which a magnet linked to a computer is used to create detailed pictures of areas inside the body. Also called nuclear magnetic resonance imaging.

### **malignancy**

A cancerous tumour that can invade and destroy nearby tissue and spread to other parts of the body.

### **malignant (ma-LIG-nant)**

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

### **metastasis (meh-TAS-ta-sis)**

The spread of cancer from one part of the body to another. A tumour formed from cells that have spread is called a secondary tumour, a metastatic tumour, or a metastasis. The secondary tumour contains cells that are like those in the original (primary) tumour. The plural form of metastasis is metastases (meh-TAS-ta-seez).

### **metastasize (meh-TAS-ta-size)**

To spread from one part of the body to another. When cancer cells metastasize and form secondary tumours, the cells in the metastatic tumour are like those in the original (primary) tumour.

### **metastatic (MET-uh-STAT-ik)**

Having to do with metastasis, which is the spread of cancer from one part of the body to another.

### **metastatic cancer**

Cancer that has spread from the place in which it started to other parts of the body.

### **MRI**

Magnetic resonance imaging (mag-NET-ik REZ-o-nans IM-a-jing). A procedure in which a magnet linked to a computer is used to create detailed pictures of areas inside the body. Also called nuclear magnetic resonance imaging (NMRI).

### **multiple endocrine neoplasia syndrome**

An inherited tendency to develop thyroid cancer and other cancers of the endocrine system. The altered gene can be detected with a blood test.

**mutate**

To change the genetic material of a cell. The changes (mutations) can be harmful, beneficial, or have no effect.

**mutation**

Any change in the DNA of a cell. Mutations may be caused by mistakes during cell division, or they may be caused by exposure to DNA-damaging agents in the environment. Mutations can be harmful, beneficial, or have no effect. If they occur in cells that make eggs or sperm, they can be inherited; if mutations occur in other types of cells, they are not inherited. Certain mutations may lead to cancer or other diseases.

**N****neck dissection (dye-SEK-shun)**

Surgery to remove lymph nodes and other tissues in the neck.

**needle biopsy**

The removal of tissue or fluid with a needle for examination under a microscope. Also called fine-needle aspiration.

**neoplasia (NEE-o-PLAY-zha)**

Abnormal and uncontrolled cell growth.

**neoplasm**

A new growth of benign or malignant tissue.

**nodule (NOD-yool)**

A growth or lump that may be cancerous or noncancerous.

**O****oncology**

The study of cancer.

**overactive thyroid**

Too much thyroid hormone. Symptoms include weight loss, chest pain, cramps, diarrhea, and nervousness. Also called hyperthyroidism.

**overall survival**

The percentage of subjects in a study who have survived for a defined period of time. Usually reported as time since diagnosis or treatment. Also called the survival rate.

## P

### **palpable disease**

A term used to describe cancer that can be felt by touch, usually present in lymph nodes, skin, or other organs of the body such as the liver or colon.

### **palpation**

Examination by pressing on the surface of the body to feel the organs or tissues underneath.

### **papillary thyroid cancer (PAP-i-lair-ee)**

Cancer that develops from cells in the thyroid and forms small finger-like projections. The most common type of thyroid cancer, it grows slowly, is more common in women than in men, and often develops before age 40.

### **parathyroid glands (pair-a-THIGH-roid)**

Four pea-sized glands found on the thyroid. The parathyroid hormone produced by these glands increases the calcium level in the blood.

### **parathyroid hormone (par-a-THI-royd)**

A substance made by the parathyroid gland that helps the body store and use calcium. Also called parathormone, parathyrin, or PTH.

### **pathologist (pa-THOL-o-jist)**

A doctor who identifies diseases by studying cells and tissues under a microscope.

### **pathology report**

The description of cells and tissues made by a pathologist based on microscopic evidence, and sometimes used to make a diagnosis of a disease.

### **PET scan**

Positron emission tomography scan. A computerized image of the metabolic activity of body tissues used to determine the presence of disease.

### **pituitary gland (pih-TOO-ih-tair-ee)**

The main endocrine gland. It produces hormones that control other glands and many body functions, especially growth.

### **prognosis (prog-NO-sis)**

The likely outcome or course of a disease; the chance of recovery or recurrence.

### **prognostic factor (prog-NOS-tik)**

A situation or condition, or a characteristic of a patient, that can be used to estimate the chance of recovery from a disease or the chance of the disease recurring (coming back).

**protocol**

A treatment plan (often standardized), or an action plan for a clinical trial. In the case of clinical trials, the plan states what the study will do, how, and why. It explains how many people will be in it, who is eligible to participate, what study agents or other interventions they will be given, what tests they will receive and how often, and what information will be gathered.

**R****radiation (ray-dee-AY-shun)**

Energy released in the form of particles or electromagnetic waves. Common sources of radiation include radon gas, cosmic rays from outer space, and medical x-rays.

**radiation oncologist (ray-dee-AY-shun on-KOL-o-jist)**

A doctor who specializes in using radiation to treat cancer.

**radiation physicist**

A person who makes sure that the radiation machine delivers the right amount of radiation to the correct site in the body. The physicist works with the radiation oncologist to choose the treatment schedule and dose that has the best chance of killing the most cancer cells.

**radiation surgery**

A radiation therapy technique that delivers radiation directly to the tumour while sparing the healthy tissue. Also called radiosurgery and stereotactic external beam irradiation.

**radiation therapist**

A health professional who gives radiation treatment.

**radiation therapy (ray-dee-AY-shun)**

The use of high-energy radiation from x-rays, gamma rays, neutrons, and other sources to kill cancer cells and shrink tumours. Radiation may come from a machine outside the body (external-beam radiation therapy), or from materials called radioisotopes. Radioisotopes produce radiation and can be placed in or near the tumour or in the area near cancer cells. This type of radiation treatment is called internal radiation therapy, implant radiation, interstitial radiation, or brachytherapy. Systemic radiation therapy uses a radioactive substance, such as a radiolabeled monoclonal antibody, that circulates throughout the body. Also called radiotherapy, irradiation, and x-ray therapy.

**radical lymph node dissection**

A surgical procedure to remove most or all of the lymph nodes that drain lymph from the area around a tumour. The lymph nodes are then examined under a microscope to see if cancer cells have spread to them.

**radioactive fallout (RAY-dee-o-AK-tiv)**

Airborne radioactive particles that fall to the ground during and after an atomic bombing, nuclear weapons test, or nuclear plant accident.

**radioactive iodine (RAY-dee-o-AK-tiv EYE-uh-dine)**

A radioactive form of iodine, often used for imaging tests or as a treatment for cancer. For imaging tests, the patient takes a small amount of radioactive iodine by mouth, and it collects in the thyroid. A probe is used to scan the thyroid. For treatment, the patient takes a large dose of radioactive iodine, which kills thyroid cells.

**radioisotope**

An unstable element that releases radiation as it breaks down. Radioisotopes can be used in imaging tests or as a treatment for cancer.

**radiolabeled**

Any compound that has been joined with a radioactive substance.

**radiologist (RAY-dee-OL-o-jist)**

A doctor who specializes in creating and interpreting pictures of areas inside the body. The pictures are produced with x-rays, sound waves, or other types of energy.

**radiology**

The use of radiation (such as x-rays) or other imaging technologies (such as ultrasound and magnetic resonance imaging) to diagnose or treat disease.

**radionuclide scanning/radioactive iodine scanning (RAI)**

A test that produces pictures (scans) of internal parts of the body. The person is given an injection or swallows a small amount of radioactive material; a machine called a scanner then measures the radioactivity in certain organs.

**radiotherapy (RAY-dee-o-THER-a-pee)**

The use of high-energy radiation from x-rays, gamma rays, neutrons, and other sources to kill cancer cells and shrink tumours. Radiation may come from a machine outside the body (external-beam radiation therapy), or it may come from radioactive material placed in the body near cancer cells (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 radiation therapy.

**recurrence**

The return of cancer, at the same site as the original (primary) tumour or in another location, after the tumour had disappeared.

**recurrent cancer**

Cancer that has returned after it had disappeared. It may return at the same site as the original (primary) tumour or in another location.

**remission**

A decrease in or disappearance of signs and symptoms of cancer. In partial remission, some, but not all, signs and symptoms of cancer have disappeared. In complete remission, all signs and symptoms of cancer have disappeared, although cancer still may be in the body.

**resected**

Surgical removal of part or all of an organ.

**resection (ree-SEK-shun)**

Removal of tissue or part or all of an organ by surgery.

**residual disease**

Cancer cells that remain after attempts to remove the cancer have been made.

**resistance**

Failure of a cancer to shrink after treatment.

**risk factor**

Anything that increases a person's chance of developing a disease. Some examples of risk factors for cancer include a family history of cancer, use of tobacco products, certain foods, being exposed to radiation or other cancer-causing agents, and certain genetic changes.

**S****salivary glands (SAL-ih-vair-ee)**

Glands in the mouth that produce saliva.

**scans**

Pictures of structures inside the body. Scans often used in diagnosing, staging, and monitoring disease include liver scans, bone scans, and computed tomography (CT) or computerized axial tomography (CAT) scans and magnetic resonance imaging (MRI) scans. In liver scanning and bone scanning, radioactive substances that are injected into the bloodstream collect in these organs. A scanner that detects the radiation is used to create pictures. In CT scanning, an x-ray machine linked to a computer is used to produce detailed

pictures of organs inside the body. MRI scans use a large magnet connected to a computer to create pictures of areas inside the body.

### **secondary tumour**

Cancer that has spread from the organ in which it first appeared to another organ. For example, breast cancer cells may spread (metastasize) to the lungs and cause the growth of a new tumour. When this happens, the disease is called metastatic breast cancer and the tumour in the lungs is called a secondary tumour. Also called secondary cancer.

### **sonogram (SON-o-gram)**

A computer picture of areas inside the body created when sound waves bounce off organs and other tissues. Also called ultrasonogram or ultrasound.

### **stage**

The extent of a cancer within the body, especially whether the disease has spread from the original site to other parts of the body.

## **T**

### **thyroglobulin (THIGH-roe-GLOB-yu-lin)**

The form that thyroid hormone takes when stored in the cells of the thyroid. If the thyroid has been removed, thyroglobulin should not show up on a blood test. Doctors measure thyroglobulin level in blood to detect thyroid cancer cells that remain in the body after treatment.

### **thyroid (THIGH-royd)**

A gland located beneath the voice box (larynx) that produces thyroid hormone. The thyroid helps regulate growth and metabolism.

### **thyroid follicular cell**

A type of cell in the thyroid. Thyroid follicular cells make thyroid hormone.

### **thyroid gland (THIGH-royd)**

A gland located beneath the voice box (larynx) that produces thyroid hormone. The thyroid helps regulate growth and metabolism.

### **thyroid hormone**

The thyroid gland makes T3 (triiodothyronine) and T4 (thyroxine), which together are considered thyroid hormone. T3 and T4 have identical effects on cells. Thyroid hormone affects heart rate, blood pressure, body temperature, and weight. T3 and T4 are stored as thyroglobulin, which can be converted back into T3 and T4.

**thyroid-stimulating hormone**

TSH. A hormone produced by the pituitary gland. TSH stimulates the release of thyroid hormone from thyroglobulin. It also stimulates the growth of thyroid follicular cells. In those who have had thyroid cancer, TSH is suppressed in order to discourage the growth of thyroid cells. In a healthy person, an abnormal TSH level may mean that the thyroid hormonal regulation system is out of control, usually as a result of a benign condition (hyperthyroidism or hypothyroidism).

**thyroidectomy (thigh-roid-EK-toe-mee)**

Surgery to remove part or all of the thyroid.

**tumour (TOO-mer)**

An abnormal mass of tissue that results from excessive cell division. Tumours perform no useful body function. They may be benign (not cancerous) or malignant (cancerous).

**tumour marker**

A substance sometimes found in an increased amount in the blood, other body fluids, or tissues and which may mean that a certain type of cancer is in the body. Examples of tumour markers include CA 125 (ovarian cancer), CA 15-3 (breast cancer), CEA (ovarian, lung, breast, pancreas, and gastrointestinal tract cancers), and PSA (prostate cancer). With thyroid cancer, the tumour marker is known as Tg (thyroglobulin). Also called a biomarker.

**U****ultrasound test**

A test that bounces sound waves off tissues and internal organs and changes the echoes into sonograms (pictures).

**undifferentiated**

A term used to describe cells or tissues that do not have specialized ("mature") structures or functions. Undifferentiated cancer cells often grow and spread quickly.

**X****x-ray**

A type of high-energy radiation. In low doses, x-rays are used to diagnose diseases by making pictures of the inside of the body. In high doses, x-rays are used to treat cancer.

**x-ray therapy**

The use of high-energy radiation from x-rays to kill cancer cells and shrink tumours. Radiation may come from a machine outside the body (external-beam radiation therapy) or from materials called radioisotopes. Radioisotopes produce radiation and can be placed in or near the tumour or in the area near cancer cells. This type of radiation treatment is called internal radiation therapy, implant radiation, interstitial radiation, or brachytherapy. Systemic radiation therapy uses a radioactive substance, such as a radiolabeled monoclonal antibody, that circulates throughout the body. X-ray therapy is also called radiation therapy, radiotherapy, and irradiation.