Glossary of Conventional Cancer Terms

A

Abdomen [AB-duh-men]
The part of the body between the chest and the pelvis. It contains the stomach, intestines, liver, gallbladder, pancreas, and other organs. The abdomen is lined by a membrane called the peritoneum.

Abdominoperineal resection [ab-DAH-muh-no-PAIR-uh-nee-uhl re-SEK-shun]
Often shortened to AP resection or APR. A type of surgery to remove the anus, rectum, and part of the colon. Two cuts are made, one in the belly (abdomen), and the other around the anus. A permanent colostomy is needed after this surgery. See also abdomen, anus, colon, colostomy, rectum.

Ablate [ab-LATE]
To remove an organ or body tissue or destroy its function. See also ablation.

Ablation [ab-LAY-shun]
Also called ablative therapy (ab-LAY-tive). Treatment to remove or destroy all or part of a cancer. It can also mean removing or stopping the function of an organ. For example, removing the ovaries or testicles or taking medicines that cause them to stop making their hormones would be called ablation. Besides surgery and drug treatment, other ways of ablating body tissues and tumors include using extreme heat, freezing, and chemicals.

Abscess [AB-ses]
A collection of pus in tissues, organs, or other parts of the body; usually a sign of infection.

**actinic keratosis** \(\text{[ak-TIN-ick KAIR-uh-TOE-sis]}\)

Also called solar keratosis; the plural is keratoses (KAIR-uh-TOE-seez). A thick, rough, or scaly patch of skin that can develop after years of sun exposure. They are not cancer, but over time a few will develop into squamous cell cancer (a type of skin cancer). Doctors can remove them or destroy them with cold, lasers, chemicals, or creams. See also squamous cell carcinoma.

**active surveillance** \(\text{[AK-tiv ser-VAY-lents]}\)

See expectant management.

**adenocarcinoma** \(\text{[AD-no-KAR-suh-NO-muh or AD-uh-no-KAR-suh-NO-muh]}\)

Cancer that starts in the glandular cells that line certain organs and make and release substances into the body, such as mucus, digestive juices, or other fluids. Examples include the ducts or lobules of the breast and the gland cells of the prostate. See also glandular cells, prostate.

**adenoma** \(\text{[ad-NO-muh or AD-uh-NO-muh]}\)

A growth or tumor that starts in glandular tissue and is not cancer. See also adenomatous polyp, glands, glandular cells.

**adenomatous polyp** \(\text{[ad-NO-muh-tus or AD-uh-NO-muh-tus PAH-lip]}\)

A non-cancerous growth of abnormal glandular cells on the inner lining of an organ such as the colon. These can become cancer, so they are usually removed. For example, 3 types of adenomatous polyps that can grow in the colon are tubular, villous, and tubulovillous adenomas. In each type, the cells are arranged differently, but there’s some overlap so that an adenoma can have both tubular and villous features. See also colon, glandular cells, hyperplastic polyp, inflammatory polyp, polyp, tubular adenoma, tubulovillous adenoma, villous adenoma.

**adenopathy**
(AD-uh-NAH-puh-thee): Also called lymphadenopathy (limf-AD-uh-NAH-puh-thee); swollen or large lymph nodes; can also mean disease of the lymph nodes. See also lymph node.

**adenosis** [AD-uh-NO-sis]

A disease or abnormal change in a gland. For instance, in breast adenosis the lobules are larger contain more glands than usual, but there’s no cancer. See also glands, glandular cells, lobule.

**adhesions** [ad-HEE-zunz]

Bands of scar tissue that form after surgery or injury that bind together organs or tissues that are normally separate. This can sometimes cause problems, for instance, if it leads to partial or total blockage of the intestine.

**adjuvant therapy** [AD-juh-vunt]

Treatment used in addition to the main treatment. It usually refers to hormone therapy, chemotherapy, radiation therapy, or other treatments given after surgery to increase the chances of curing the disease or keeping it in check.

**adrenal glands** [uh-DREE-nul]

Glands at the top of each kidney (everyone normally has 2). Their main function is to make hormones that help the body respond to stress and control metabolism (processing food for energy), fluid balance, and blood pressure. They also make small amounts of progesterone (a female hormone), as well as androgens (male hormones), which the body can convert into estrogen (another female hormone).

**advance directives**

Legal documents that tell the doctor and family what future medical care a person wants if the person later becomes unable to make decisions for him or herself. This may include whether to start or when to stop life-sustaining treatments. Another type of advance directive lets you choose a person to make decisions for you if you become unable to do it for yourself. See also durable power of attorney for health care, living will.

**advanced cancer**
A general term describing cancer that has spread from where it started (the primary site) to other parts of the body. When the cancer has spread only to the nearby areas, it’s called locally advanced cancer. If it has spread to distant parts of the body, it’s called metastatic cancer. See also metastasis, metastasize.

**AJCC Staging System**

American Joint Committee on Cancer staging system (also called the TNM system), which is used to describe the amount and spread of many types of cancer, typically with the number 0 (zero) and Roman numerals from I through IV. See also staging.

**allele** [al-EEL]

Any one of the different forms of a gene or group of genes that occupy a specific location on a given chromosome. See also chromosome, gene.

**allogeneic stem cell transplant** [AL-o-jen-NEE-ick or AL-o-jen-NAY-ick]

A type of stem cell transplant that uses blood stem cells from a donor whose tissue type closely matches the patient’s to replace blood-forming cells that have been destroyed by disease or cancer treatment. The cells can be from a related donor or an unrelated donor. Compare to autologous stem cell transplant. See also bone marrow transplant, hematopoietic stem cell transplant, stem cells.

**alopecia** [AL-o-PEE-shuh]

Hair loss, which can include body hair, eyebrows, and eyelashes as well as scalp hair. This often happens with chemotherapy treatment or radiation therapy. In most cases, the hair grows back after treatment ends.

**alpha blocker** [AL-fuh]

A drug that relaxes smooth muscle tissue. Alpha blockers are sometimes used to help men who have trouble passing urine because of benign prostatic hyperplasia (BPH) or other causes. See also benign prostatic hyperplasia, urine.

**alternative therapy**
An unproven therapy that’s used instead of standard medical treatment. Some alternative therapies are known to cause harmful or even life-threatening side effects. With others, the main danger is that the patient may lose the chance to benefit from standard treatment. The American Cancer Society recommends that patients thinking about using any alternative or complementary therapy discuss it first with a member of their health care team to be sure that they know all their options. See also complementary therapy.

**alveoli** [al-VEE-o-lie]
Tiny air sacs in the lungs where oxygen and carbon dioxide are exchanged.

**ambulatory** [AM-byou-luh-TOR-ee]
Walking or able to walk. Ambulatory care centers work with outpatients, that is, people who are not staying in a hospital. Short procedures or treatments are often done in such centers.

**Amsterdam criteria** [AM-stir-dam cry-TEER-ee-uh]
A set of conditions common in people with hereditary non-polyposis colon cancer (HNPCC), also known as Lynch syndrome. Only about half of people who meet all of these criteria actually have HNPCC, but people who meet the criteria may want to consider genetic testing. Compare to Bethesda criteria. See also hereditary non-polyposis colon cancer, genetic counseling, genetic testing.

**anal** [A-nul]
Having to do with the anus. See also anus.

**analog** [AN-uh-log]
A man-made version of a naturally occurring substance. See also luteinizing hormone-releasing hormone analogs.

**anastomosis** [uh-NAS-tuh-MO-sis]
The site where 2 structures are surgically joined together, such as the bladder and the urethra after the prostate has been removed, or the 2 ends of bowel put back together after a section has been removed.

**androgen ablation** [AN-druh-jen ab-LAY-shun]
See androgen blockade, androgen deprivation therapy.

**androgen blockade**

Use of drugs to disrupt the actions of androgens or male hormones. See also androgens, androgen deprivation therapy, combined hormone therapy, hormone therapy.

**androgen deprivation therapy**

Often shortened to ADT. Treatment to reduce levels of androgens (male hormones) in the body or prevent them from reaching cancer cells. For example, since androgens stimulate prostate cancer to grow, ADT often makes prostate cancers shrink or grow more slowly. See also anti-androgens, chemical castration, hormone therapy, luteinizing hormone-releasing hormone antagonists, luteinizing hormone-releasing hormone agonists, orchiectomy, testosterone.

**androgen-dependent**

A term used to describe prostate cells that are stimulated by male hormones to grow and multiply, and are suppressed by drugs that stop or disrupt the action of male hormones. Androgen-dependent cells may be normal or cancer. See also androgen-independent.

**androgen-independent**

A term for prostate cancer that no longer responds to any type of hormone therapy; also known as hormone-refractory. Compare to castrate-resistant. See also androgen-dependent, hormone therapy.

**androgens** [AN-druh-jens]

Hormones found in men and women but with much higher levels in men; commonly called male sex hormones. The major androgen is testosterone. See also hormone therapy, testosterone.

**anecdotal** [AN-neck-DOE-tul]

Related to an individual or personal report, or a description from one or more patients. Anecdotal evidence is not considered as reliable as evidence from well-designed clinical trials or other types of studies.

**anemia** [uh-NEE-me-uh]
Low red blood cell count.

**anesthesia** [AN-es-THEE-zhuh]

The loss of feeling or sensation as a result of drugs or gases. General anesthesia causes loss of consciousness (puts you into a deep sleep so you don’t feel pain). Local or regional anesthesia numbs only a certain area.

**anesthesiologist** [AN-es-THEE-zee-AHL-uh-jist]

A doctor who specializes in giving drugs or other agents that prevent or relieve pain, especially during surgery.

**aneuploid** [AN-you-PLOYD]

Cells with either more or less than the normal number of chromosome pairs. Most human cells normally have 23 pairs of chromosomes. Compare to diploid. See also chromosome, ploidy.

**angiogenesis** [AN-jee-o-JEN-uh-sis]

The formation of new blood vessels. Some cancer treatments work by blocking angiogenesis, which helps keep blood from reaching (“feeding”) the tumor. See also anti-angiogenesis agent.

**angiography** [AN-ji-e-AH-gruh-fee]

A test in which a contrast dye is injected directly into a blood vessel that goes to the area that is being studied. A series of x-rays are then taken to show doctors the blood vessels in the area. This test can be used to look at the blood vessels around a tumor.

**angiosarcoma** [AN-ji-e-o-sar-KO-muh]

A type of cancer that starts from cells that line blood vessels or lymph vessels.

**anorexia** [AN-uh-REK-see-uh]

Loss of appetite, which may be caused by either the cancer itself or treatments such as chemotherapy.

**anterior** [an-TEER-ee-yer]

At or near the front.

**anti-androgen** [AN-tee-AN-druh-jen or AN-tie-AN-druh-jen]
A drug that blocks the body’s ability to use male hormones (androgens). Anti-androgens are used along with orchiectomy (a type of surgery) or LHRH analogs (drugs) as part of hormone therapy to help treat prostate cancer. See also androgens, androgen deprivation therapy, hormone therapy, luteinizing hormone-releasing hormone analogs, orchiectomy.

**anti-angiogenesis agent** ☀️ [AN-tee-AN-jee-o-JEN-uh-sis or AN-tie-AN-jee-o-JEN-uh-sis]

A drug that keeps new blood vessels from forming, limiting the blood supply to a tumor. See also angiogenesis.

**antibiotic** ☑️ [AN-tee-by-AH-tick or AN-tie-by-AH-tick]

A drug used to kill germs (micro-organisms) that cause disease. Antibiotics may be made naturally by living organisms or they may be created in the lab. Since some cancer treatments can reduce the body’s ability to fight infection, antibiotics may be used to treat or prevent these infections.

**antibody** ☑️ [AN-tih-BAH-dee or AN-tee-BAH-dee]

A protein made by immune system cells and released into the blood to help defend the body against foreign agents, such as bacteria. These agents contain certain substances called antigens. Each antibody works against one certain antigen. See also antigen, immune system.

**anti-emetic** ☑️ [AN-tee-ih-MEH-tik or AN-tie-ih-MEH-tik]

A drug that prevents or relieves nausea and vomiting.

**anti-estrogen** ☑️ [AN-tee-ES-tro-jen or AN-tie-ES-tro-jen]

A substance that blocks the effects of estrogen on cancer cells. These types of drugs are used to treat breast cancers that depend on estrogen for growth and can be used to help prevent breast cancer. See also estrogen, hormone therapy, selective estrogen receptor modulator.

**antigen** ☑️ [AN-tuh-jen]

A substance that can cause the body’s immune system to respond by making antibodies. For example, the immune system responds to antigens that are part of bacteria and viruses to help people resist infections. Certain cancer cells have antigens that can be found by lab tests. Knowledge of these
Antigens can be used to help diagnose, monitor, and even treat some cancers. See also antibody, immune system.

**Antimetabolite [AN-tee-muh-TAB-o-lites or AN-tie-muh-TAB-o-lites]**

A substance that interferes with the body’s chemical processes, such as those that create DNA (deoxyribonucleic acid) and other chemicals needed for cell growth and reproduction. In treating cancer, antimetabolite drugs disrupt DNA production, which in turn prevents cell division and tumor growth. See also deoxyribonucleic acid.

**Antioxidants [AN-tee-OX-uh-dunts or AN-tie-OX-uh-dunts]**

A compound that holds back chemical reactions with oxygen (oxidation). Some vitamins, such as vitamins C and E and beta-carotene are antioxidants. Antioxidants that are found in foods might reduce the risk of some cancers. But taking certain antioxidants as supplements has been linked to higher cancer risk in some people.

**Anus [A-nus]**

The end of the digestive tract, through which waste passes out of the body. See also digestive system.

**APC gene**

A gene that slows the growth of cells in the body. People who have a change (mutation) in this gene can develop hundreds of polyps in the colon, due to diseases known as familial adenomatous polyposis (FAP) and Gardner syndrome. See also familial adenomatous polyposis, Gardner syndrome, gene, hereditary cancer syndrome, mutation, polyp.

**Apheresis [A-fur-REE-sis]**

May also be called pheresis (fur-REE-sis). A procedure in which blood is taken out of the body (through a catheter in a vein), part of the blood is removed, and the rest of the blood is put back into the body. May be called plasmapheresis if plasma is removed, leukapheresis if white blood cells are removed, or plateletpheresis when platelets are removed.

**Aplasia [a-PLAY-zee-uh or a-PLAY-zhuh]**

Defective development or absence of an organ, cell, or tissue.
aplastic [a-PLAS-tick]
Having to do with aplasia. See aplasia, aplastic anemia.

aplastic anemia [a-PLAS-tick uh-NEE-me-uh]
A condition in which the bone marrow doesn’t make enough blood cells, resulting in low red blood cell counts (anemia), and often low white blood cells counts (leukopenia) and low platelet counts (thrombocytopenia) as well. See also anemia, leukopenia, thrombocytopenia.

apoptosis [A-pop-TOE-sis]
Programmed cell death. Apoptosis is controlled by genes that cause cells to die at certain times, for example, when DNA (deoxyribonucleic acid) is damaged. This type of cell death is a normal process in the body and is different from the process of cell death by decay. Some drugs used to treat cancer cause apoptosis. See also deoxyribonucleic acid.

areola [ah-REE-uh-luh or air-ee-O-luh]
The dark area of skin that surrounds the nipple of the breast.

aromatase inhibitors [uh-ROE-muh-tase]
Drugs that lower estrogen levels by blocking aromatase, the enzyme that converts androgens into estrogen. These drugs are used to treat hormone-sensitive breast cancer in women after menopause. They’re also being tested to see if they can reduce breast cancer risk in women after menopause. See also androgens, chemoprevention, enzyme, estrogen, hormone therapy, menopause.

artificial sphincter [SFINK-ter]
An inflatable cuff implanted to squeeze the urethra or anus shut and help a person control their urine or poop (stool). See also anus, incontinence, sphincter, urethra, urine.

ascending colon [as-SEND-ing KO-lun]
The first of the 4 sections of the colon. The ascending colon begins at the end of the small intestine and extends upward on the right side of the abdomen to connect with the transverse colon. See also abdomen, colon, transverse colon, descending colon, sigmoid colon.
**ascites** [ah-SITE-eez]
Abnormal build-up of fluid in the belly (abdomen).

**aspiration** [ASP-er-A-shun]
To draw out or remove liquid, gas, or tissue fragments through a needle using suction. Also, the accidental breathing in of food or fluid into the lungs. See also fine needle aspiration biopsy.

**Astler-Coller staging system**
One of the staging systems for colorectal cancer. In this system, the letters A through D are used for the different stages. See also staging, colorectal cancer.

**asymptomatic** [A-simp-tuh-MAT-ik]
Not having any symptoms of a disease. Many cancers can develop and grow without causing symptoms at first. Screening tests such as mammograms and colonoscopies help find some early cancers before symptoms start, when the chances for cure are usually highest. See also screening.

**ataxia-telangiectasia** [a-TAX-ee-yuh tel-AN-jee-eck-TAY-zhuh]
Also called A-T. A rare, inherited condition that affects the nervous system, immune system, and other body systems and results in an increased risk of certain types of cancer, especially leukemias and lymphomas. A-T is caused by having changes in both copies of the ATM gene. See also ATM gene, gene, mutation.

**ATM gene**
A gene that normally slows the growth of cells in the body and helps repair damage inside cells. If a person has changes (mutations) in both copies of this gene, it causes a disease called ataxia-telangiectasia. If only one copy of the gene is mutated, the person may have a higher risk of breast and some other types of cancer. See also ataxia-telangiectasia, mutation.

**atypia** [a-TIP-ee-yuh]
Not normal; atypical. Often refers to how cancer or pre-cancer cells look under a microscope. See also atypical, hyperplasia.
atypical [a-TIP-uh-kul]
Not usual; abnormal. See also atypia.

atypical small acinar proliferation [a-TIP-uh-kul small uh-SEE-nar pruh-LIH-fuh-RAY-shun]
Often shortened to ASAP or sometimes just atypia; a suspicious finding on a prostate biopsy pathology report in which the prostate cells look like they might be cancerous, but there are too few of them to be sure. If ASAP is found, there’s a high chance that there’s cancer in the prostate, so many doctors advise having another biopsy done within a few months. See also atypia, biopsy, prostatic intraepithelial neoplasia.

autologous [aw-TAHL-uh-gus]
Use of the patient’s own blood or tissue in a medical procedure; for example, using a woman’s own tissue to rebuild a breast shape is called autologous tissue construction.

autologous stem cell transplant [aw-TAHL-uh-gus]
A type of stem cell transplant that uses blood stem cells that are taken either from the patient’s bone marrow or bloodstream and are frozen, stored, and given back to the patient later. Compare to allogeneic stem cell transplant. See also bone marrow, hematopoietic stem cell transplant, stem cells.

axilla [ax-ILL-uh]
The armpit.

axillary dissection [AX-ill-air-ee di-SEK-shun]
Also called axillary lymph node dissection; removal of the lymph nodes in the armpit (these are the axillary nodes). They are looked at under a microscope to see if they contain cancer. See also axilla, lymph node, lymph node biopsy.
Also called **B cells**. White blood cells that help make antibodies. See also **antibody, immune system, white blood cells**.

**barium enema** [BEAR-ee-um EN-uh-muh]

A type of x-ray test where barium sulfate, a chalky liquid, is put in through the rectum to enlarge and partly fill the large intestine (colon). When the colon is about half-full of barium, air is often pushed in to make the colon expand further. This allows good x-ray films to be taken. This procedure may also be called a **double contrast barium enema, air-contrast barium enema**, or a **lower GI series**. See also **barium sulfate, colon, x-ray**.

**barium sulfate** [BEAR-ee-um SUL-fate]

A substance made into a chalky liquid that’s used to outline the inside of the digestive tract for x-rays. It can be taken by mouth, as part of an upper gastrointestinal (GI) series, or put into the rectum as a barium enema (as part of a lower GI series). See also **barium enema, gastrointestinal tract, x-ray**.

**basal cell carcinoma** [BAY-sul or BAY-zul sell CAR-sin-O-ma]

Also called **basal cell cancer**; the most common type of skin cancer. It begins in the lowest layer of the epidermis (the outer layer of the skin), called the **basal cell layer**. It usually develops on sun-exposed areas, especially the head and neck. Basal cell cancer grows slowly and is not likely to spread to distant parts of the body.

**basic science**

Also called pure science; a type of research that provides the knowledge and background required for later research into human health problems (known as **applied science**). In cancer research, basic science is often done in the lab in fields like biochemistry, cell biology, or genetics. It’s not aimed directly at treating a specific cancer, but it may be used later as part of the basis for a treatment.

**behavioral research**

Research looking at what motivates people to act the way they do. The results of such research can be used to help encourage people to adopt healthy lifestyles and follow life-saving screening and treatment guidelines.

**benign** [be-NINE]
Not cancer; not malignant. Compare with malignant.

**benign prostatic hyperplasia** [be-NINE pros-TAT-tick HI-per-PLAY-zhuh]

Often shortened to BPH. Non-cancerous enlargement of the prostate. This sometimes makes it harder for a man to empty his bladder – causing trouble starting and stopping urine flow, weak flow of urine, and dribbling. See also bladder, prostate, urine.

**benign tumor** [be-NINE TOO-mer]

An abnormal growth that’s not cancer, so it does not invade into nearby tissues or spread to other parts of the body. Some benign tumors can still cause health problems. See also tumor.

**beta carotene** [BAY-tuh KAIR-uh-TEEN]

A form of vitamin A that’s found mainly in yellow and orange vegetables and fruits. It functions as an antioxidant. See also antioxidants.

**Bethesda criteria**

A set of conditions used to determine if someone with colorectal cancer might have hereditary non-polyposis colon cancer (HNPCC), and therefore might want to consider genetic testing for it. Most people who have these criteria do not actually have HNPCC. Compare to Amsterdam criteria. See also hereditary non-polyposis colon cancer, genetic testing.

**bilateral** [by-LAT-er-ul]

On both right and left sides of the body; for example, bilateral breast cancer is cancer in both breasts. Compare to unilateral.

**bile**

Fluid made by the liver and stored in the gall bladder; it enters the small intestine to help digest fats. See also bile ducts, biliary, gallbladder.

**bile ducts**

The small tubes through which bile flows from the liver and gallbladder into the small intestine. The largest of these, known as the **common bile duct**, is
joined by a duct carrying fluid from the pancreas as it nears the intestine. See also bile, gallbladder, biliary, liver, pancreas.

biliary [BIL-e-air-e]
Having to do with the liver, gallbladder and/or bile or the bile ducts. See also bile, bile ducts, gallbladder, liver.

biologic response modifiers [BY-o-LA-jick re-SPONS MOD-uh-FIE-urs]
Substances made in the body, such as interferons and interleukins, that boost the body’s immune system. Man-made versions of these substances can be used to treat some cancers or other diseases. This type of treatment is sometimes called biologic therapy. See also immunotherapy.

biomarkers [BY-o-MAR-kers]
See tumor markers.

biopsy [BY-op-see]
The removal of a piece of body tissue to see if cancer cells are present. There are several kinds of biopsies. In some, a thin, hollow needle is used to remove fluid or cells from a tumor. Other biopsies are done using surgery. See also core needle biopsy, fine needle aspiration biopsy, sextant biopsy, surgical biopsy.

biopsy gun [BY-op-see]
An instrument used to take core biopsy samples, often used for prostate biopsies. See also biopsy, core needle biopsy.

bisphosphonates [bis-FAHS-fun-ATES]
Drugs that slow down the action of bone-eating cells called osteoclasts, which helps slow the spread of cancer in the bones. Bisphosphonate drugs also used to help treat osteoporosis (bone thinning) and some other conditions.

bladder [BLAD-uhr]
A hollow organ in the pelvis with flexible, muscular walls. The bladder stores urine made by the kidneys until it leaves the body during urination. See also kidney, urine.

blood count
See complete blood count.

**bone marrow**

The soft, spongy tissue in the hollow middle of certain bones of the body. This is where new blood cells are made. See also platelets, red blood cells, white blood cells.

**bone marrow aspiration and biopsy** [ASP-er-A-shun and BY-op-see]

A procedure in which a thin, hollow needle is put into the center of a bone, usually the hip or breast bone, to take out a small amount of bone marrow so that it can be looked at under a microscope. See also bone marrow.

**bone marrow transplant**

A treatment that replaces blood-forming stem cells in the bone marrow with new stem cells that come from the bone marrow of either the patient (autologous) or a donor (allogeneic). Bone marrow transplants (BMTs) were the first type of stem cell transplant used, but they are now done less often than in the past. See also allogeneic stem cell transplant, autologous stem cell transplant, bone marrow, umbilical cord blood transplant, hematopoietic stem cell transplant, stem cells.

**bone scan**

An imaging test that looks for abnormal areas in the bones, which might be caused by cancer. For this test, a small amount of radioactive contrast material (radioisotope) is put into a vein. This material settles in abnormal areas of the bones. The radioactive substance can then be seen in pictures as it collects in the problem areas (called “hot spots”). See also imaging tests, radioisotope.

**bone survey**

Also called a skeletal survey. A set of x-rays of all the major bones of the body; it may be done when looking for cancer that has spread to the bones.

**bowels**

The intestines, from the end of the stomach to the anus. The small bowel (small intestine) goes from the bottom of the stomach to the large bowel. The large bowel (large intestine) goes from there to the anus, and includes the
colon and rectum. See also anus, colon, gastrointestinal tract, intestines, rectum.

BPH

See benign prostatic hyperplasia.

brachytherapy [BRAY-kee-THAIR-uh-pee]

Internal radiation treatment that’s given by putting a radioactive source right into the tumor or close to it. There are 2 main types of brachytherapy. In intracavitary treatment, the source is placed into a space near the cancer. In interstitial treatment the source is placed directly into the tissues. Brachytherapy is sometimes used along with external beam radiation therapy. See also high-dose rate brachytherapy, low-dose rate brachytherapy, external beam radiation therapy, ionizing radiation.

brain

Enclosed in the skull or the bones of the head (cranium) and connected to the spinal cord, the brain is the main center for regulating and coordinating body activities and functions. It’s the seat of thought, feeling, memory, speech, vision, hearing, movement, and much more. Different parts of the brain control different functions in the body. See also cranium, spinal cord.

brain scan

An imaging test used to find anything that isn’t normal in the brain, including a brain tumor or cancer that has spread to the brain from other places in the body. This is usually a magnetic resonance imaging (MRI) scan or computed tomography (CT) scan, which are most often done in an outpatient setting. These tests are painless, except for the needle stick if a contrast material (“dye”) is put into a vein. See also computed tomography scan, magnetic resonance imaging, outpatient.

BRCA1

A gene which, when damaged (mutated), puts a person at higher risk of developing breast, ovarian, and some other types of cancer, compared to people who do not have the mutation. See also gene, mutation.

BRCA2
A gene which, when damaged (mutated), puts a person at higher risk of developing breast, ovarian, and some other types of cancer when compared to people who do not have the mutation. See also gene, mutation.

**BRCAPro**

A tool used to help health professionals estimate a person’s risk of having a mutation in a BRCA gene based on family history (who else in the family has had cancer).

**breast augmentation**

Surgery to increase the size of the breast. See also breast implant, mammoplasty.

**breast cancer**

Cancer that starts in the breast. The most common types of breast cancer are ductal carcinoma in situ, invasive ductal carcinoma, invasive lobular carcinoma, medullary carcinoma, and Paget disease of the nipple (see definitions under these headings). Lobular carcinoma in situ is sometimes listed as a non-invasive type of cancer, even though it’s not a true cancer or pre-cancer.

**breast conservation therapy or breast-conserving therapy**

Surgery to remove breast cancer and a small margin of normal tissue around the cancer without removing any other part of the breast. The lymph nodes under the arm may be removed, and radiation therapy is often given after the surgery. This method is also called lumpectomy, segmental excision, limited breast surgery, or tylectomy. See also lumpectomy, mastectomy.

**breast implant**

A sac used to increase breast size or restore the shape of a breast after surgical removal of the breast (mastectomy). The sac is filled with silicone gel (a synthetic material) or sterile saltwater (saline). See also mastectomy, prosthesis.

**breast reconstruction**

Surgery that rebuilds the shape of the breast after surgical removal of the breast (mastectomy). A breast implant or the woman’s own tissue may be
used. If desired, the nipple and areola might also be re-created. Reconstruction might be done at the time of mastectomy or later, depending on the treatment plan and a woman’s wishes. See also implant, mastectomy, prosthesis.

**breast self-exam**

Often shortened to **BSE**. A way to check your own breasts for lumps or other changes. Breast self exam is no longer recommended for breast cancer screening.

**breast specialist**

A health care professional who has a dedicated interest in breast health. While he or she may have specialized knowledge in this area, medical licensing boards do not certify a specialty in breast care.

**bronchiole** [BRONG-key-ol]

One of the smaller subdivisions or branches of the bronchi. See also bronchus.

**bronchitis** [brong-KIE-tiss]

Inflammation of the main breathing tubes (the bronchi).

**bronchoscopy** [brong-KAH-skuh-pee]

An exam in which a doctor looks at the inner lining of the bronchi and smaller airways in the lungs using a thin, flexible, lighted tube that goes down the throat. This instrument is called a bronchoscope. See also bronchus.

**bronchus** [BRONG-kuss]

Either of the 2 main air passages that split off from the windpipe (trachea) and enter the lungs. The plural of this word is bronchi (BRONG-ki). The bronchi provide a passage for air to move in and out of the lungs. See also bronchiole, trachea.
CA 19-9

A tumor marker sometimes found in the blood of people with colorectal, stomach, bile duct, and pancreatic cancers. It may also be found in some non-cancer conditions. See also tumor markers.

CAB

Combined androgen blockade. See combination hormone therapy.

cachexia [ka-KEK-see-uh]

A profound state of general poor health and malnutrition (poor food intake and/or poor food absorption) that leads to loss of body weight and muscle mass.

calcifications [KALS-if-ik-A-shuns]

Tiny calcium deposits in the body. For example, they may be seen on a mammogram of the breast, where they may be alone or in clusters. Very small deposits may be called microcalcifications. They are a sign of changes within the breast that may need to be followed by more mammograms or a biopsy. See also biopsy, mammogram.

cancer

A group of diseases which cause cells in the body to change and grow out of control. Most types of cancer cells form a lump or mass called a tumor. (Not all tumors are cancer. A tumor that is not cancer is called benign, while a cancerous tumor is called malignant.) A cancerous tumor can invade and destroy healthy tissue. Cells from the cancer can break away and travel to other parts of the body. There they can continue to grow. This spreading process is called metastasis. When cancer spreads, it is still named after the part of the body where it started. (For example, if colon cancer spreads to the liver, it’s still colon cancer, not liver cancer.) Benign tumors do not grow and spread the way cancer does. They are usually not a threat to life. Note that some types of cancer, such as blood cancers, do not form tumors. They can still threaten life by crowding out normal cells. See also benign, malignant, metastasis, tumor.

cancer care team
The group of health care professionals who work together to find, treat, and care for people with cancer. The cancer care team may include any or all of the specialists listed. Whether the team is linked formally or informally, there’s usually one person who takes the job of coordinating the team. See also medical oncologist, radiation oncologist, pathologist, oncology clinical nurse specialist, oncology social worker, neurosurgeon, surgeon, gynecologist, gynecologic oncologist, urologist.

**cancer cell 📌**

A cell that divides and reproduces abnormally and can spread throughout the body, crowding out normal cells and tissue. Cancer cells develop because of damage to their DNA (deoxyribonucleic acid). See also cancer, deoxyribonucleic acid, mutation.

**cancer screening tests 📌**

See screening.

**cancer susceptibility genes 📌**

Genes (the basic unit of heredity) inherited from one’s parents that greatly increase the risk of a person developing cancer. About 5% to 10% of all cancers are caused by these genes. See also gene.

**cancer-related check-up 📌**

A routine health exam for cancer in people without signs or symptoms of cancer. The goal of the cancer-related check-up is to find the disease, if it exists, at an early stage, when chances for cure are greatest. See also detection, screening.

**cancer-related fatigue 📌**

An unusual and ongoing tiredness that can occur with cancer or cancer treatments. It can be overwhelming, last a long time, and interfere with everyday life. Rest does not always relieve it.

**cannula 📌**

A narrow tube-like device. Different kinds may be used to hold tissues open during laparoscopy, or to give IV medicines and fluids. See also intravenous (IV), laparoscopy.
capsule formation

Scar tissue that may form around an implant as the body reacts to the foreign object.

carcinoembryonic antigen [CAR-sin-o-EM-bre-ON-ic AN-tuh-jin]

Often shortened to CEA. A substance normally found in certain fetal tissues. If found in the blood of an adult, it may suggest that a cancer, especially one starting in the digestive system, may be present. Blood tests for this substance may help doctors find out if a colorectal cancer has come back after treatment. The test is not helpful for screening for colorectal cancer because of the large number of false positives and false negatives. See also digestive system, false negative, false positive, screening, tumor marker, colorectal cancer.

carcinogen [car-SIN-o-jin]

Any substance that causes cancer or helps cancer grow.

carcinoid syndrome [CAR-sin-oyd SIN-drom]

A group of symptoms produced by cancer cells that release large amounts of hormones, which cause facial flushing, wheezing, diarrhea, a fast heartbeat, and other symptoms. See also carcinoid tumors, hormone.

carcinoid tumors [CAR-sin-oyd]

Also called carcinoids. Tumors that develop from nerve and endocrine (neuroendocrine) cells, usually in the digestive tract or lung. The cells from these tumors release certain hormones into the bloodstream. In a small percentage of people, the hormone levels get high enough to cause facial flushing, wheezing, diarrhea, a fast heartbeat, and other symptoms. See also carcinoid syndrome, endocrine glands, hormone.

carcinoma [CAR-sin-O-ma]

A cancer that begins in the lining layer (epithelial cells) of organs. Most cancers are carcinomas.

carcinoma in situ [CAR-sin-O-ma in SY-too]

An early stage of cancer in which the cancer cells are only in the layer of cells where they first began, and have not grown into nearby tissues in other parts
of the organ or spread to distant parts of the body. Compare to invasive cancer. See also carcinoma.

**Case manager**

The member of a cancer care team, usually a nurse or oncology nurse specialist, who coordinates the patient’s care throughout diagnosis, treatment, and recovery. The case manager acts as a guide through the complex system of health care by getting responses to questions, managing crises, and connecting the patient and family to people or groups that can offer needed help. See also cancer care team.

**Castleman disease**

An overgrowth of lymph nodes and other lymphoid tissues (found in the thymus, spleen, tonsils, bone marrow, digestive tract, and other organs). It’s not a type of cancer, but sometimes it can act very much like lymphoma, and even develop into lymphoma. See also lymph node, lymphoma, thymus, spleen.

**castrate-resistant**

Prostate cancer that’s still growing even when the testosterone levels are as low as what would be expected if the testicles were removed (called “castrate” levels). Some of these cancers may still be helped by other forms of hormone therapy. Compare to androgen-independent. See also hormone therapy, testicles, testosterone.

**castration** [cass-TRAY-shun]

Surgery to remove the testicles; the medical term is orchiectomy. See also androgen deprivation therapy, chemical castration, testicles.

**catheter** [CATH-it-ur]

A thin, flexible tube through which fluids enter or leave the body; for example, a tube to drain urine is called a Foley catheter. See also urine.

**causal association or causal link** [KAW-zul]
A relationship in which one factor is thought to be responsible for or cause an outcome; for instance, smoking has a causal link to lung cancer.

**CBC**

See complete blood count.

**CDH1**

A gene that makes a protein called epithelial cadherin. A change (mutation) in this gene can cause hereditary diffuse gastric cancer (a rare type of stomach cancer) to develop at an early age. Women who inherit changes in this gene also have a higher risk of lobular breast cancer. See also inherited disease, lobular carcinoma in situ, mutation.

**CEA**

See carcinoembryonic antigen.

**cecum** [SEE-kum]

A pouch at the start of the colon, where the small intestine empties into the large intestine. See also colon, gastrointestinal tract.

**cell**

The basic unit of which all living things are made. Cells replace themselves by splitting and forming new cells (in a process called mitosis). The processes that control the formation of new cells and the death of old cells are disrupted in cancer. See also cancer.

**cell cycle**

The series of steps that a cell must go through to divide; some cancer treatments work by interfering with the cell cycle.

**centigray** [CENT-uh-gray]

A unit for measuring radiation transfer. See also radiation dose.

**centimeter** [SEN-tuh-ME-ter]

Also written as cm. Metric measure of length, 1/100 of a meter. 2½ cm = 1 inch. See also meter, millimeter.

**central nervous system**
Often shortened to CNS. The brain and spinal cord, which serve as the main “processing center” for the entire nervous system. See also nerve, nervous system, peripheral nervous system.

**Cerebrospinal fluid** 📜 [suh-REE-bro-SPY-nuhl]

Often shortened to CSF. A special clear liquid that surrounds and cushions the brain and spinal cord. See also brain, spinal cord.

**cervical cancer** 📜 [SER-vih-kul]

cancer that starts in the cells lining the cervix – the lower part of the uterus (womb) that connects the uterus to the vagina. See also cervix, uterus, vagina.

**cervix** 📜 [SER-vix]

The lower part, or neck, of the womb (uterus), which connects the uterus to the vagina. See also uterus, vagina.

**cGy** 📜

Centigray; a unit for measuring radiation transfer. See gray under radiation dose.

**CHEK2** 📜

A gene that, if damaged or mutated, can increase the risk of breast and other types of cancer. This damaged gene can be inherited. See also gene, inherited disease, mutation.

**chemical castration** 📜 [KEM-ih-kul cast-RAY-shun]

The use of hormone therapy drugs to achieve very low levels of testosterone without surgical removal of the testicles. See also androgen deprivation therapy, castration, castrate-resistant, testicles.

**chemo brain** 📜 [KEY-mo BRAIN]

Also written chemobrain or chemo-brain; also called chemo fog. The mental cloudiness people with cancer sometimes notice before, during, and after
chemotherapy. Despite the name, researchers are finding other factors that also seem to be linked to this problem.

**chemoprevention** [KEY-mo-pre-VEN-shun]
The use of drugs, chemicals, or other substances to help keep cancer from developing or coming back.

**Chemotherapy** [KEY-mo-THAIR-uh-pee]
Treatment with drugs that kill cancer cells as well as healthy cells. Often called chemo.

**choriocarcinoma** [kor-EE-oh-CAR-sin-O-ma]
Cancer that starts in the cells that would normally develop into a placenta inside the womb (uterus) during pregnancy. Compare to gestational trophoblastic disease.

**chromogenic in situ hybridization** [KRO-mo-JEN-ick in SY-too HI-brid-ih-ZA-shun]
Often shortened to CISH. a lab test that uses small DNA (deoxyribonucleic acid) probes to count certain genes in cancer cells. See also deoxyribonucleic acid, gene.

**chromosome** [KRO-muh-SOAM]
A strand of DNA (deoxyribonucleic acid) inside a cell that carries genes, the basic units of heredity. Humans have 23 pairs of chromosomes, one member of each pair from the mother, the other from the father. Each chromosome can contain hundreds or thousands of individual genes. See also deoxyribonucleic acid, gene, ploidy.

**chronic inflammatory bowel disease** [KRON-ick in-FLAM-uh-TOR-ee]
See inflammatory bowel disease.

**chronic obstructive pulmonary disease** [KRON-ick ob-STRUK-tiv PULL-muh-NERR-ee]
Often shortened to COPD. Lung disease such as emphysema or chronic bronchitis, which harms the lungs and makes it harder to breathe. Often caused by smoking; sometimes caused by other exposures and illnesses.
chyme [kime]
The thick, nearly liquid mixture of partly digested food and digestive juices found in the stomach and small intestine.

Claus model
A tool used to help health professionals estimate a woman’s breast cancer risk based on family history.

clavicle [KLAV-ih-kuhl]
The collarbone. One on either side connects bones of the shoulder to the breastbone (sternum). Lymph nodes are above and below this bone. See also lymph node, infraclavicular, supraclavicular.

clinical breast examination
Often shortened to CBE. Examination of the breasts done by a health professional such as a doctor or nurse to check for lumps or other changes. Clinical breast exam is no longer recommended for breast cancer screening.

clinical stage
See staging.

clinical trials
Research studies that use human volunteers, usually to test new drugs or other treatments to compare current, standard treatments with others that may be better. They may also test new ways to diagnose or prevent a disease. Before a new treatment or test is used on people, it is studied in the lab. If lab studies suggest it will work, the next step is to test it in patients.

clitoris [KLIT-or-is]
A small cylinder of erectile tissue at the front of a woman’s genitals, just inside the inner lips (labia minora). See also labia, vulva.

colectomy [kuh-LEK-tuh-me]
Surgery that removes all (total colectomy) or part (partial colectomy or hemicolectomy) of the colon. See also colon.

colitis [kuh-LIE-tis]
A general term for inflammation of the large intestine (colon). Colitis can be intermittent (it comes and goes) or chronic (long-lasting, as in ulcerative colitis). See also colon, inflammatory bowel disease.

colo-anal anastomosis [KO-lo-A-nuhl uh-NAS-tuh-MO-sis]
Surgery in which the rectum is removed and the colon is attached to the anus. Sometimes a small pouch is made to take the place of the rectum, by doubling back a short segment of colon (colonic J-pouch) or enlarging a segment (coloplasty). A temporary colostomy is needed while the pouch heals. See also anus, colon, colostomy, low anterior resection, rectum.

colon [KO-lun]
The major part of the large intestine. The colon is a muscular tube about 5 feet long. It’s divided into 4 sections, starting with the ascending, transverse, descending, and ending with the sigmoid colon. It continues the process of absorbing water and mineral nutrients from food that was started in the small intestine. The cecum and the rectum mark the beginning and end of the colon, though they are not actually part of it. See also cecum, rectum.

colonoscope [ko-LAHN-uH-SOHPE]
A thin, flexible, hollow, lighted tube about the thickness of a finger with a small video camera on the end. It’s put in through the rectum and moved up into the colon to look closely at the inside of the entire colon. Compare to sigmoidoscope. See also colon, colonoscopy, rectum.

colonoscopy [KO-lun-AH-skuh-pee]
A procedure in which a doctor uses a colonoscope to see inside the colon to look for polyps or cancer. See also colon, colonoscope, colorectal cancer screening, colonoscopy preparation.

colonoscopy preparation [KO-lun-AH-skuh-pee]
Also called colonoscopy prep. The use of a liquid diet along with laxatives (and sometimes enemas) to clean out the entire colon before the colonoscopy or virtual colonoscopy is done. This preparation is usually started 1 or 2 days before the colonoscopy. See also colon, colonoscopy, laxative, virtual colonoscopy.
Often shortened to CSFs. Types of growth factors that promote growth and division of blood-producing cells in the bone marrow. CSFs are naturally produced in the body. Man-made versions of CSFs may be given to reduce or prevent certain side effects of chemotherapy that may be caused by not having enough blood cells. They may also be given before harvesting stem cells from a donor for stem cell transplant. See also bone marrow, chemotherapy, hematopoietic stem cell transplant, stem cells.

**Color Doppler ultrasound**

A type of ultrasound that uses a computer to convert sounds into colors to represent blood flow within an organ. It may be used to help find some cancers, since tumors often have more blood flow than normal tissue. See also transrectal ultrasound, ultrasound.

**colorectal cancer** [KO-lo-REK-tuhl]

Often shortened to CRC. Cancer that starts in the colon or rectum. Since colon cancer and rectal cancer have many features in common they are often referred to together as colorectal cancer. See also colon, rectum.

**colorectal cancer screening** [KO-lo-REK-tuhl]

Testing to look for abnormalities in the colon or rectum early, before signs and symptoms start. This can often find cancer earlier, when it’s most curable. Some types of screening allow doctors to find and remove polyps, which can even prevent cancer from developing. See also screening, polyp.

**colostomy** [kuh-LAHS-tuh-me]

An opening created by surgery that attaches the colon to the skin on the belly (abdomen) to make a new path to get rid of solid body waste (poop or stool). A small pouch is placed at the opening to collect the stool. See also colon, rectum.

**colposcopy** [kol-PA-skuh-pee]

A close examination of the inside of the vagina and the lower part of the womb (cervix) using a colposcope, a lighted magnifying device. See also cervix, vagina.

**combination hormone therapy**
Use of multiple ways to affect the body’s hormone levels. For example, prostate cancer is sometimes treated by using castration or an LHRH analog to lower testosterone levels, plus an anti-androgen to help block the cancer cells from using any remaining male hormones (androgens). This is also called combined androgen blockade (CAB), total hormonal ablation, total androgen blockade, or total androgen ablation. See also androgens, androgen deprivation therapy, castration, hormone therapy, luteinizing hormone-releasing hormone analogs, testosterone.

**combined androgen blockade**

Often shortened to CAB. See combination hormone therapy.

**combined modality therapy** [mo-DAL-ih-tee]

Using 2 or more types of treatment sequentially or together to get the best results. For example, surgery for cancer is often followed by chemotherapy to kill any cancer cells that may still be in the body. See also adjuvant therapy, neoadjuvant therapy, chemotherapy.

**comedocarcinoma** [KOM-id-o-CAR-sin-NO-muh]

A type of breast cancer called ductal carcinoma in situ that has dead or dying cancer cells in the center of the ducts. See also ductal carcinoma in situ.

**complementary therapy**

A non-standard treatment (often self-prescribed) used along with standard medical treatment. Some complementary therapies may help relieve certain symptoms of cancer, relieve side effects of standard cancer therapy, or improve a patient’s sense of well-being. These can include herbs, meditation, massage or touch, and many other types of treatments. The ACS recommends that patients thinking about using any alternative or complementary therapy discuss it first with a member of their health care team, since many of these treatments are unproven and some can be harmful. Compare with alternative therapy.

**complete blood count**

Often shortened to CBC. A count of the number of cells in a given sample of blood. Red blood cells, white blood cells, and platelets are most often counted for this lab test. See also platelets, red blood cells, white blood cells.

**computed tomography scan** [toe-MAHG-ruh-fee]
Also called a CT scan or CAT scan. An imaging test in which many x-rays are taken from different angles of a part of the body. These images are combined by a computer to make cross-sectional pictures that show details of internal organs much better than standard x-rays. Except for when the dye is injected (needed in some but not all cases), this is a painless test that can be done in an outpatient clinic. See also imaging tests, ionizing radiation.

**Computer-aided detection or diagnosis**

Often shortened to CAD. A process in which a radiologist uses a computer program to help interpret a mammogram or other imaging test. See also imaging tests, mammogram.

**concurrent treatment**

Treatment or therapy given at the same time as another treatment.

**conditioning treatment**

Chemotherapy and/or radiation therapy used to destroy the bone marrow or reduce its function in order to prepare for a stem cell transplant. See also hematopoietic stem cell transplant, myeloablative treatment, reduced-intensity conditioning.

**conformal proton beam therapy**

A technique for giving radiation therapy that uses proton beams rather than standard radiation. (Protons are parts of atoms.) Unlike standard radiation beams, which release energy both before and after hitting the target, proton beams cause less damage to tissues they pass through, and then release their energy after traveling a certain distance. Proton beam therapy has not been directly compared to standard radiation methods, but the hope is that it may be able to deliver more radiation to the cancer with less damage to nearby normal tissues. It’s still fairly new and is offered in only a small number of treatment centers. See also conformal radiation therapy, external beam radiation therapy, ionizing radiation.

**conformal radiation therapy**

A type of radiation treatment that uses a special computer to help shape the beams of radiation to match the shape of the tumor. It also delivers the beams from several different directions rather than all going in from one
angle. This cuts down the amount of exposure that any one section of healthy tissue gets by spreading out the entry points. See also external beam radiation therapy, ionizing radiation, photon beam radiation therapy.

**control group**

In research or clinical trials, the group that does not get the treatment being tested. In cancer research, this group most often gets standard treatment (which has already been tested and is in general use). If no standard treatment exists, the control group may get a placebo or sham treatment. Sometimes called the comparison group. See also clinical trials, placebo.

**conventional therapy or treatment**

See standard therapy.

**COPD**

See chronic obstructive pulmonary disease.

**cord blood transplant**

See umbilical cord blood transplant.

**core needle biopsy**

A procedure in which a wide, hollow needle is used to take out pieces of tissue to look for cancer or other diseases. See also biopsy, biopsy gun.

**corticosteroid** [KOR-tih-ko-STAIR-oyd]

Any of a number of steroid hormones made by the outer layer (cortex) of the adrenal glands. Man-made versions are sometimes used as cancer treatments or to help with symptoms or side effects. See also adrenal glands.

**cranium** [CRAY-nee-um]

The part of the skull bones that enclose and protect the brain, and support the structures of the face. See also brain.

**Crohn’s disease or Crohn’s colitis** [kronz]

A type of chronic inflammatory bowel disease where the small intestine or, less often, the colon is inflamed over a long period of time. This increases a person’s risk of developing colon cancer. See also colon, inflammatory bowel disease, small intestine.
cryoablation [CRY-o-ah-BLAY-shun]
Use of extreme cold to freeze and kill cancer cells.

cryosurgery [CRY-o-SUR-juh-ree]
See cryoablation.

CT colonography
See virtual colonoscopy.

CT scan or CAT scan
See computed tomography.

CT-guided biopsy
A procedure that uses special x-rays to show a tumor while the doctor advances a biopsy needle toward it. The images are repeated until the doctor is sure the needle is in the tumor or mass. A piece of the tumor is then taken out, usually through the needle, and looked at under the microscope. See also biopsy.

Curative treatment [KUR-uh-tiv]
Treatment aimed at producing a cure. Compare with palliative treatment.

cutaneous [cue-TAY-nee-us]
Having to do with the skin.

cyst [sist]
A fluid-filled mass that’s usually not cancer.

cystoscope [SIS-tuh-SKOP]
A thin, flexible tube with a lens and a light on the end. It’s put into the bladder through the urethra, allowing the doctor to see the insides of these organs. See also bladder, cystoscopy, urethra.

cystoscopy [sis-TAH-skuh-pee]
A procedure that looks at the inside of the urethra and bladder with a thin, flexible, lighted tube called a cystoscope. See also bladder, cystoscopy, urethra.

cytogenetics [SY-to-juh-NET-icks]
Tests that look for abnormal changes (mutations) in whole chromosomes. Also called chromosome analysis. It’s often done on bone marrow samples in patients with certain types of cancer, such as leukemia or lymphoma. See also bone marrow, chromosome, mutation, genetic testing.

**cytokine** [SY-toe-kine]
A substance that’s made by cells of the body’s immune system that can affect the immune response. Cytokines can also be made in the lab and given to people to help the body fight cancer, infection, and other diseases. See also immune system.

**cytology** [sy-TAHL-uh-jee]
The branch of science that deals with the structure and function of cells. Also refers to tests to diagnose cancer and other diseases by looking at cells under the microscope. See also cell.

**cytometry** [sy-TAHM-uh-tree]
The counting and measuring of cells using a machine called a flow cytometer. See also cell.

**cytopenia** [SY-toe-PEE-nee-uh]
A lower-than-normal number of blood cells. See also complete blood count, platelets, red blood cells, white blood cells.

**cytotoxic** [SY-toe-TOK-sick]
Toxic to cells; cell-killing. See also cell.

**D & C**
See *dilation and curettage.*

**debulk** [de-BULK]
To surgically reduce the volume or amount of cancer, usually by removing as much as can be safely taken out.
**deoxyribonucleic acid** [dee-OK-see-RI-bo-noo-KLEE-ick]

Most often called **DNA**. The genetic “blueprint” found in the center (**nucleus**) of each cell. DNA makes up the genes in each cell, which control its growth, division, and function. See also **gene, mutation**.

**Depot injection** [DEE-poe or DEP-oh]

A shot (**injection**) of a drug in a form that allows it to enter the bloodstream slowly over time. These drugs can often be given every month or even once every few months.

**dermatologist** [DER-muh-TAHL-uh-jist]

A doctor who specializes in skin diseases.

DES

See **diethylstilbestrol**.

descending colon [de-SEND-ing KO-lun]

The third section of the colon. This section starts at the end of the transverse (crosswise) section and continues downward on the left side of the abdomen (belly) before connecting with the sigmoid colon. See also **colon, ascending colon, transverse colon, sigmoid colon**.

detection

Finding disease. **Early detection** usually means finding the disease at an early stage, when it’s easier to treat, before it has grown large or spread. Certain tests can be used before a person has any symptoms to try to find cancer early. See also **screening**.

DHT

See **dihydrotestosterone**.

diagnosis [DIE-ug-NO-sis]

Identifying a disease by its signs or symptoms, and by using imaging tests, lab tests, or biopsy. For most types of cancer, a biopsy is needed to be sure of the diagnosis. See also **biopsy, imaging studies, sign, symptom**.
**diaphragm** [DIE-uh-FRAM]

A thin, dome-shaped muscle that separates the chest from the belly (abdomen). During breathing, the diaphragm moves down to pull air into the lungs, and up to push it out.

**Dietary supplement**

A product, such as a vitamin, mineral, or herb, intended to improve health but not to diagnose, treat, cure, or prevent disease. Because dietary supplements are not legally considered drugs, their manufacturers can sell them without having to prove they are safe or effective.

**diethylstilbestrol** [die-ETH-ul-still-BES-trahl]

Often shortened to DES. A man-made form of estrogen that was sometimes used during pregnancy in the past. People whose mothers took DES while pregnant with them may have a higher risk of certain cancers and reproductive problems. Women who took this drug while pregnant may be at a slightly higher risk of breast cancer. It’s no longer available in the United States. See also estrogen.

**dietitian or registered dietitian** [DIE-uh-TISH-un]

An expert in the area of nutrition, food, and diet. A registered dietitian (RD) has at least a bachelor’s degree and has passed a national competency exam. The term nutritionist is also used, but there are no licensing or educational requirements for using this title in most states.

**differentiation** [DIF-uhr-EN-she-A-shun]

The normal process through which cells mature so they can do the jobs they were meant to do. Cancer cells are less differentiated than normal cells. Tumor grading systems are based on the degree of differentiation. See also grade.

**digestive system**

The collection of organs (some of which make up the gastrointestinal tract, or GI tract) that processes food for energy and rids the body of solid waste matter. See also gastrointestinal tract.
digital mammography
A way of storing an x-ray picture of the breast (mammogram) as a computer image rather than on the usual x-ray film. See also mammogram.

digital rectal exam
Often shortened to DRE. An exam in which the doctor puts a lubricated, gloved finger into the rectum to feel for anything that isn’t normal. This simple test, which generally is not painful, can be used to check for rectal cancers and some prostate cancers. See also prostate, rectum.

dihydrotestosterone [die-HI-dro-tes-TOSS-ter-OWN]
Often shortened to DHT. A powerful form of male hormone produced by the action of 5-alpha reductase (a prostate enzyme) on testosterone. See also 5-alpha reductase, testosterone.

dilation and curettage [die-LAY-shun and CURE-uh-TAZH]
Often shortened to D & C. A procedure in which the cervix is opened slightly so that tissue from the lining of the womb (uterus) can be removed. This is often used to get tissue for biopsy. In some cases, all of the contents of the uterus are removed. See also biopsy, cervix, uterus.

dimpling
A pucker or indentation of the skin. On the breast, it might be a sign of cancer.

diploid [DIP-loyd]
Cells with 23 pairs of chromosomes, such as is found in normal human cells. Compare to aneuploid. See also chromosome, ploidy.

disease-free survival rate
The percentage of people with a certain cancer who are still living and have no evidence of cancer at a certain period of time (usually 5 years) after treatment. Compare to five-year survival rate, five-year relative survival rate.

dissection [di-SEK-shun]
Surgery to divide, separate, or remove tissues. See also axillary dissection.

distant cancer
Cancer that has spread far from its original location or primary site to distant organs or lymph nodes. Sometimes called distant metastases. Compare to localized cancer. See also primary site, metastasis.

**diverticulitis**

Inflammation in small pouches that form at weak points in the colon wall, which can cause slight bleeding and positive results on fecal occult blood tests (FOBTs) and fecal immunochemical tests (FITs). See also colon, fecal occult blood tests, fecal immunochemical tests.

**DNA**

See deoxyribonucleic acid.

**DNA repair**

The process of fixing the genetic mistakes inside a cell that are sometimes made when it divides to make new cells. If the repair process does not go right, it can increase the chances of a person having some forms of cancer. See also deoxyribonucleic acid, mutation.

**dose-dense chemotherapy**

Giving the usual doses of chemo closer together (such as every 2 weeks rather than every 3 weeks). This schedule requires the use of drugs called *growth factors* to help prevent blood cell counts from getting too low. See also chemotherapy, growth factors

**dosimetrist**

A person who plans and calculates the correct radiation dose for each patient’s cancer treatment. See also radiation therapy.

**double-contrast barium enema**

A type of x-ray that can be used to help look for problems in the colon and/or rectum. Barium sulfate, a chalky liquid, is put in through the rectum to partly fill and open up the colon. When the colon is about half-full of barium, air is put in to expand the colon. Abnormal changes can then be seen on x-ray films. Also called DCBE, air-contrast barium enema, or barium enema with air contrast. See also barium enema, colon, rectum, x-ray.

**doubling time**
For cancer in general, the time it takes for a cell to divide or for a tumor to double in size. Tumors vary in doubling time from 8 to more than 1,000 days. Thus, a cancer may be present for many years before it can be found.

**DRE**

See digital rectal exam.

**Drug resistance**

The ability of cells to resist the effects of drugs used to kill or weaken them.

**duct**

A hollow passage through which body fluids such as bile or saliva leave the glands where they are made. In the breast, milk passes from lobules (which make the milk) through ducts to the nipple. See also glands.

**duct ectasia** [ek-TAY-zhuh]

Widening of the ducts of the breast, often related to breast inflammation called *periductal mastitis*. Duct ectasia is not cancer.

**ductal carcinoma in situ** [DUCK-tul CAR-sin-O-ma in SY-too]

Also called DCIS or intraductal carcinoma. A condition in which cancer cells are in lining of the milk passages (ducts) but have not grown through the duct walls into the nearby tissue.

**ductogram** [DUCK-tuh-GRAM]

A test in which a very thin plastic tube is put into the nipple of the breast and a contrast dye is injected to outline the shape of the duct. X-rays are then taken to see if there is a mass. Also called a galactogram. See also nipple, duct.

**durable power of attorney for health care**

A legal document that lets you appoint a person to make medical decisions for you if you become unable to do so for yourself. This is a type of advance directive. Compare to living will. See also advance directives.

**dysphagia** [dis-FAY-zhe-uh]
Trouble swallowing.

dysplasia [dis-PLAY-zuh]
Abnormal cell changes that can be seen with a microscope and may lead to cancer.

early detection
See detection.
edema [uh-DEEM-uh]
Swelling caused by build-up of fluid in body tissues. See also lymphedema.
efficacy [EF-ih-KUH-see]
Effectiveness. The ability of a treatment to produce the desired result.
ejaculate [ih-JACK-you-LATE]
To release semen during male orgasm. See also retrograde ejaculation, semen.
electrofulguration [e-LEK-tro-FUL-ger-A-shun]
Also known as electrocautery (e-LEK-tro-CAW-tuh-ree). A type of treatment that destroys cells by burning with an electrical current; may also be used to control bleeding during surgery or after an injury.
embolization [EM-buh-li-ZAY-shun]
A type of treatment that reduces the blood supply to a tumor by injecting materials to plug up the artery that supplies it.
embryo [EM-bree-oh]
Early stage in the development of a plant or an animal. In humans, this stage lasts from shortly after fertilization until all major body parts appear, or from about 2 weeks after fertilization until the end of the seventh or eighth week of pregnancy.
**emesis** [EM-eh-sis]
Vomit or vomiting.

**Endocavitary radiation therapy** [END-oh-KAV-uh-TERR-ee]
Radiation for cancer delivered from a handheld device that’s placed inside a body opening. It may be given alone or with external beam radiation therapy. See also **external beam radiation therapy**, **radiation therapy**.

**endocrine glands** [EN-duh-krin]
Glands that release hormones into the bloodstream. The ovaries, testicles, thyroid, and adrenals are all examples of endocrine glands. See also **adrenal gland**, **glands**, **hormones**, **ovary**, **pancreas**, **pituitary**, **testicles**, **thyroid**.

deendocrine therapy [EN-duh-krin]
Treatment that adds, blocks, or removes hormones to treat a disease or condition. See also **hormone therapy**.

deendocrinologist [EN-duh-kruh-NAHL-uh-jist]
A doctor who specializes in diseases related to the glands of the endocrine system, such as the thyroid, pancreas, and adrenal glands. See also **adrenal gland**, **endocrine glands**, **pancreas**, **thyroid**.

deendometrial [en-doe-ME-tree-ul]
Related to the endometrium. See also **endometrium**.

deendometrium [EN-doe-ME-tree-um]
The lining of the womb (*uterus*). See also **uterus**.

deendorectal coil [EN-doe-REK-tuhl]
A probe that is placed and left in the rectum during an MRI, which helps get a more accurate picture of the prostate area. See also **magnetic resonance imaging (MRI)**, **prostate**, **rectum**.

deendorectal ultrasound [EN-doe-REK-tuhl]
A test that uses sound waves from a probe placed in the rectum to see how far through the wall a rectal cancer may have spread, and if it has spread to nearby organs or lymph nodes. See also lymph node, rectum, transrectal ultrasound, ultrasound.

**endoscopy** [en-DAHS-kuh-pee]
Inspection of the inner linings of hollow body organs or cavities by inserting a thin, flexible, lighted tube called an *endoscope* through a body opening such as the mouth or anus. Compare to laparoscopy.

**enterostomal therapist** [EN-ter-oh-STO-mal THER-uh-pist]
Also called an *ostomy nurse* or a *wound care nurse*. A health professional, often a nurse, who teaches people how to care for stomas (surgically created openings such as a colostomy) and wounds. See also colostomy, stoma.

**enucleation** [ee-NOO-klee-AY-shun]
Surgical removal of something (for instance, an organ or tumor) without cutting into it.

**enzyme** [EN-zime]
A protein that starts, helps, or speeds up the rate of chemical reactions in living cells.

**epidemiology** [EP-ih-DEEM-ee-AHL-uh-jee]
The study of diseases in large groups of people from the general population who share a common factor such as age, sex, or health condition by collecting and analyzing statistical data. In the field of cancer, epidemiologists look at things like how many people have cancer, who gets certain types of cancer, and what factors (such as environment, job hazards, family patterns, and personal habits) are linked to developing cancer.

**epidermal growth factors** [EP-ih-DERM-uhl]
Hormone-like substances linked to certain types of cancer that are known to make cells grow. Some cancer cells grow faster because they contain more growth factor receptors than normal cells. See also hormone.

**epididymis** [EP-ih-DID-uh-mus]
A tiny tube inside the scrotum that sits coiled on top of and behind each testicle. Sperm travel through these tubes after forming and are stored there until they mature. The tubes lead into the vas deferens. See also scrotum, sperm, testicles, vas deferens.

**Epidural anesthesia** [EP-ih-DUR-uhl an-es-THEE-zhuh]
Injection of anesthetic drugs into the space around the spinal cord. This is used to numb the lower part of the body while allowing the patient to stay awake. See also anesthesia, spinal cord.

**epiglottis** [EP-uh-GLOT-is]
A thin, valve-like, cartilage structure at the root of the tongue that covers the vocal cord area (glottis) when you swallow. This keeps food and drink from getting into the windpipe (trachea).

**erectile dysfunction**
also called ED or impotence. Not being able to have or keep an erection of the penis adequate for penetration during sex.

**esophageal speech** [eh-SOF-uh-JEE-uh-l]
A special way to speak used by some people after the voice box (larynx) has been removed. Air is swallowed to produce a “belching” type of speech.

**esophagus** [ih-SOF-uh-gus]
A hollow, muscular tube through which food passes from the mouth to the stomach. It lies behind the windpipe (trachea) and in front of the spine.

**estrogen**
A hormone found in both men and women, but at higher levels in women. Often called the female sex hormone, it’s made mostly by the ovaries, and in smaller amounts in fat tissue. In girls, estrogen helps to regulate puberty, such as growth of breasts. In women, estrogen levels normally cycle on a monthly schedule to regulate menstruation and prepare the body for fertilization and reproduction. Estrogen may promote the growth of cancer cells in breast cancer. In men, estrogen is sometimes used to treat advanced prostate cancer by countering the action of testosterone. See also estrogen.
estrogen receptor assay

A lab test done on a sample of breast cancer cells to see whether they have estrogen receptors. The growth of normal breast cells and some breast cancers is stimulated by estrogen. *Estrogen receptors* are molecules that function as a cell’s “welcome mat” for estrogen circulating in the blood. Breast cancer cells without these receptors (called *estrogen-receptor negative* or *ER-negative*) are unlikely to respond to hormone therapy. *Estrogen-receptor positive* or *ER-positive* cancers are more likely to respond to hormone therapy. See also *estrogen*, *hormone therapy*.

estrogen therapy

Sometimes called *estrogen replacement therapy*. The use of estrogen from other sources after a woman’s ovaries stop making it. This type of hormone therapy is sometimes used for short periods to relieve symptoms of menopause. Estrogen alone can raise the risk of cancer of the lining of the womb (*endometrial cancer*), so a woman who still has a womb (*uterus*) is usually also given progesterone to lower this risk. It might also increase breast cancer risk slightly in some women. See also *estrogen*, *menopausal hormone therapy*, *menopause*, *ovary*, *progesterone*.

etiology

The cause of a disease. There are many possible causes of cancer. Research is showing that both genetics (genes passed on from your parents) and lifestyle (including exposures to carcinogens) are major factors in many cancers. See also *carcinogen*, *gene*.

Ewing sarcoma

A type of cancer, usually starting in bone, that’s seen most often in children and teens. Most start in the pelvis or hip bones, the chest wall (such as ribs and shoulder blades), or the long bones of the legs.

excision

Removal by cutting the body (*surgery*). This can mean cutting out a tumor or cutting off a body part.

expectant management
Also called **active surveillance** or **watchful waiting**. Close monitoring that’s done in some cases of prostate cancer, instead of starting active treatment right away. This may be a reasonable choice for older men with small tumors that might grow very slowly, allowing them to avoid or delay the side effects from treatment. Because the man is being watched carefully, changes are noted quickly, and treatment can be started right away if needed.

**External beam radiation therapy**

Often shortened to **EBRT**. Radiation from a source outside the body that’s focused on the cancer. Each treatment is much like getting an x-ray, but the radiation doses are much higher. Compare to **brachytherapy**. See also **radiation therapy**.

**extracapsular extension** [EX-tra-CAP-su-lur ex-TEN-shun]

Cancer in a lymph node that’s growing through the layer of connective tissue (the capsule) that covers the outside of the node. See also **lymph node**.

**extraosseus Ewing tumor** [ex-tra-OS-ee-us YU-ing]

Also called **extraskeletal Ewing sarcoma**. Most often seen in children and teens, these tumors start in soft tissues around bones. They look and act a lot like Ewing sarcomas in bones and are treated in similar ways. See also **Ewing sarcoma**.

**fallopian tubes** [fa-LO-pe-uhn]

The tubes on either side of the uterus through which eggs travel from the ovaries to the uterus. See also uterus, ovaries.

**false negative**

Test result implying a condition does not exist when in fact it does.

**false positive**

Test result implying a condition exists when in fact it does not.
familial adenomatous polyposis [fa-MIL-e-uhl ad-NO-muh-tus or AD-uh-NO-muh-tus PA-lish-PO-sis]

Also called FAP. An inherited condition that puts a person at risk for getting colorectal cancer at an early age. People with this syndrome develop many polyps in the colon and rectum as well as tumors in other parts of the body. Usually one or more of these polyps becomes cancer if it’s not removed. FAP is caused by changes in the APC gene. See also APC gene, colon, gastrointestinal tract, polyp, rectum, tumor.

fascia [FASH-uh]

A sheet or thin band of fibrous tissue that covers muscles and some organs of the body.

fat necrosis [nuh-CROW-sis]

The death of fat cells, usually following injury. Fat necrosis is not cancer, but it can cause lumps and pulling of the tissues. When this happens in the breast, it can be confused with breast cancer.

fatigue [fuh-TEEG]

Bone-weary tiredness that often doesn’t get better with rest. A common symptom during cancer treatment. For some people, it can last a long time after treatment.

fecal immunochemical test [FEE-kuhl IM-you-no-KIM-uh-kuhl test]

Often shortened to FIT. A test to look for hidden blood in the poop (stool), which could be a sign of cancer. Unlike the fecal occult blood test (FOBT), this test is not affected by vitamins or foods, so there are no dietary restrictions before taking the test. See also colorectal cancer screening, fecal occult blood test.

fecal occult blood test

Often shortened to FOBT. A test that looks for hidden blood in the poop (stool or feces). Blood in the stool may be a sign of cancer, or it could be from other sources. See also colorectal cancer screening, fecal immunochemical test.

feces [FEE-sees]

Also called stool or poop. Solid waste matter.
femur [FEE-mer]
The thigh bone, which is the longest, largest, and strongest bone in the body. It extends from the hip (pelvis) to the knee.

Fiber
Referring to dietary fiber, the parts of fruits, vegetables, and other plants that are not digested by humans. Beans, vegetables, whole grains, and fruits are good sources of fiber. Links between fiber intake alone and lower risk of cancer are not proven, but eating these foods is still recommended because they contain other substances that may help prevent cancer. They also have other health benefits.

fibroadenoma [Fl-bro-AD-uh-NO-muh]
A breast tumor made of fibrous and glandular tissue that is not cancer. It usually feels like a firm, round, smooth lump. These usually occur in young women. See also glandular tissue.

fibrocystic changes [FIE-bro-SIS-tick]
A term that describes certain changes in the breast that are not cancer and are thought to be caused by fibrosis and/or fluid-filled sacs (cysts). Symptoms of this condition are breast lumps, swelling, pain, and sometimes, nipple discharge. Because these symptoms or other signs can look like breast cancer, a mammogram or a biopsy of breast tissue may be needed to be sure there is no cancer. See also biopsy, mammogram.

fibrosis [fie-BRO-sis]
Formation of scar-like (fibrous) tissue. This can happen anywhere in the body.

fibula [FIB-yuh-luh]
A bone in the calf; the thinner, outside bone of the 2 bones in lower leg that go from the knee to the ankle. See also tibia.

fine needle aspiration biopsy [ASP-er-A-shun BY-op-see]
Often shortened to FNA or FNAB. A procedure in which a thin, hollow needle attached to a syringe is used to draw up (aspirate) samples to look at under a microscope. See also aspiration, biopsy.

**first-degree relative**
A genetically related (blood-related) parent, sibling (brother or sister), or child.

**FISH**
See fluorescent in situ hybridization.

**fistula** [FIST-chu-luh]
An abnormal passage, opening, or connection between 2 internal organs or from an internal organ to the outside of the body.

**five-year relative survival rate**
The ratio of a cancer patient’s chances of surviving 5 years compared to that of an average cancer-free person of the same age and sex. It compares the number of people who are still alive 5 years after their cancer was found to the survival of others the same age who don’t have cancer. This helps correct for other causes of death and is a better way than survival rates alone to see the impact that cancer can have on survival. Still, these survival rates cannot predict any one person’s outcome, which can be affected by many factors. Even when survival rates are based on the most recent data available, they typically include information from patients treated several years earlier. Advances in treatment that have occurred since then might result in a better outlook for people who are newly diagnosed. See also five-year survival rate.

**five-year survival rate**
The percentage of people with a given type or stage of cancer who are alive 5 years or longer after diagnosis. It does not take into account actual causes of death, so some non-survivors might have died from causes other than cancer. These survival rates cannot predict any one person’s outcome, which can be affected by many factors. Even when survival rates are based on the most recent data available, they typically include information from patients treated several years earlier. Advances in treatment that have occurred since then might result in a better outlook for people who are newly diagnosed. See also five-year relative survival rate.
flexible sigmoidoscopy

See sigmoidoscopy.

flow cytometry [sy-TAHM-uh-tree]

A test in which cells from a biopsy or blood sample are stained and passed in front of a laser light. It can be used to measure certain characteristics of the cells, such as size, shape, DNA (deoxyribonucleic acid) content (a measure of growth), and the presence of tumor markers on or in the cells. See also biopsy, deoxyribonucleic acid, ploidy, s-phase fraction, tumor markers.

fluorescent in situ hybridization [floo-RES-uhnt in SY-toh HI-brid-ih-ZAY-shun]

Often shortened to FISH. A test that can help look at genes inside cancer cells. It uses small DNA (deoxyribonucleic acid) probes labeled with special fluorescent dyes that only attach to certain parts of a gene to find specific DNA sequences. It can be used to diagnose, to evaluate disease outlook (prognosis), or to look at the remission of a disease. See also chromosome, cytogenetics, deoxyribonucleic acid, remission.

focus [FO-kus]

A point at which rays of light or radiation beams come together. Also used to describe a region of disease in the body. The plural can be focuses or foci (FO-sy).

follicle [FAH-lick-uh]

A sac or pouch-like structure made up of groups of cells. There are many types of follicles of all sizes in the body; for example, in the scalp, around the teeth, in lymph cells, in the thyroid, and in the ovaries. See also follicular.

follicular [fah-LICK-yuh-ler]

Relating to a follicle or follicles. In medicine, may refer to a type of cell in the thyroid, or to a type of cancer that starts in follicular cells. It can also refer to a type of non-Hodgkin lymphoma that tends to grow in follicles. See also follicle, non-Hodgkin lymphoma.

fractionation [FRACK-shun-A-shun]
Dividing the total dose of radiation into smaller doses (usually given over weeks) in order to reduce damage to healthy tissues. See also radiation therapy.

**fracture** [FRACK-chur]
A partial or complete break, usually in bone.

**free-PSA ratio**
See percent-free PSA.

**frozen section**
A very thin slice of body tissue that has been quick-frozen so the pathologist can look at under a microscope while the patient is still in surgery. This method is sometimes used because it can often give a quick diagnosis and tell a surgeon whether to continue with the operation. The diagnosis is confirmed in a few days by a more detailed study called a permanent section. See also biopsy, pathologist, permanent section.

**G**

**galactocele** [guh-LACK-tuh-seal]
A clogged milk duct; a cyst filled with milk. It may occur in the breast during breast-feeding. See also cyst, duct.

**galactogram**
See ductogram.

**gallbladder**
A pear-shaped organ under the liver that stores bile, a fluid made by the liver to help the body digest fat. The gallbladder releases bile into the small intestine during digestion.

**Gardner syndrome**
Like familial adenomatous polyposis (FAP), Gardner syndrome is an inherited condition in which polyps develop in the colon at a young age and often lead
to cancer. It can also cause non-cancerous tumors of the skin, soft connective tissue, and bones. See also APC gene, colon, familial adenomatous polyposis, inherited disease, polyp.

gastric [GAS-trick]
Of or referring to the stomach.

Gastroenterologist [GAS-tro-EN-ter-AHL-uh-jist]
A doctor who specializes in diseases of the digestive (gastrointestinal) tract, such as the swallowing tube (esophagus), stomach, small intestine, and large intestine, as well as the liver, gallbladder, and pancreas. See also esophagus, gallbladder, large intestine, liver, pancreas, small intestine, stomach.

gastrointestinal stromal tumors [GAS-tro-in-TEST-uh-nul STRO-muhl TOO-mers]
Often shortened to GISTs. Tumors that grow from special cells on the gastrointestinal wall known as the interstitial cells of Cajal. Most GISTs start in the stomach or small intestine. These tumors may or may not be cancer. GIST cancers are very different from other more common types of gastrointestinal tract cancers in treatment and outlook. See also gastrointestinal tract.

gastrointestinal tract [GAS-tro-in-TEST-uh-nul trakt]
Also called the GI tract or the digestive tract. It’s made up of the organs and structures that process and prepare food to be used for energy, including the esophagus, stomach, small intestine, and large intestine. See also esophagus, large intestine, small intestine, stomach.

gene
A piece of DNA (deoxyribonucleic acid) inside a cell that has the information to make a specific protein. Genes are responsible for traits passed on in families, such as hair color, eye color, and height, as well as susceptibility to certain diseases. See also deoxyribonucleic acid, mutation.

gene therapy
A type of treatment being studied in which defective genes would be replaced with normal ones. The new genes could be delivered into the cells by viruses or proteins. See also gene.

**genetic counseling** 🔄

The process of counseling people who might have a gene that makes them more likely to develop cancer or another disease. The purpose of counseling is to explore what the genetic test results might mean, help people decide whether they wish to be tested, and support them before and after the test. See also gene, genetic counselor, genetic testing.

**genetic counselor** 🔄

A specially trained health professional who helps people as they decide whether to get genetic testing, as they adjust to the test results, and as they consider whatever screening and preventive measures are best for them. They can also help a person understand what their results may mean for other family members. See also genetic counseling, genetic testing.

**genetic testing** 🔄

Tests that can be done to see if a person has certain gene changes known to increase the risk of cancer or other diseases. Such testing is not recommended for everyone, but for people with certain types of family history. Genetic counseling should be part of the genetic testing process. See also genetic counseling, hereditary cancer syndrome.

**genome** 🔄 [JEE-nome]

The total DNA (deoxyribonucleic acid) and sometimes RNA (ribonucleic acid) in a single cell, representing all of the genetic information of the organism. The term genome can also refer to certain types of genetic material, such as that in the cell’s nucleus (nuclear genome) or mitochondria (mitochondrial genome). See also deoxyribonucleic acid, gene, ribonucleic acid.

**germ cells** 🔄

The reproductive cells of the body, that is, eggs (ova) or sperm. See also ova, sperm.

**gestational** 🔄 [jess-TAY-shun-uhl]

Having to do with pregnancy.
**gestational trophoblastic disease** [jess-TAY-shun-al tro-to-BLAS-tick]

Often shortened to GTD. Also called *hydatidiform moles* (HI-duh-TID-ih-form) or *molar pregnancies*. A growth that starts in the cells that would normally develop into a placenta inside the womb (*uterus*) during pregnancy. Most of these rare tumors are not cancer. Compare to *choriocarcinoma*.

**Gl tract**

See *gastrointestinal tract*.

**Glands**

Cells or groups of cells that make and release substances to be used by the body or sent outside of it. The sweat glands and the pancreas are examples of organs that make and release substances. Note that swollen lymph nodes in the neck or armpit are often called “glands,” even though they actually are not. See also duct, endocrine glands, lymph node.

**glandular cells** [GLAN-juh-luhr]

The cells in a gland that make substances. For example, glandular cells in the prostate make the milky fluid that becomes part of the semen.

**glandular tissue** [GLAN-juh-luhr TISH-oo]

Tissue that makes and secretes a substance. For instance, the lobules of the breast are glandular tissue because they make breast milk. See also lobules.

**glans**

The head of the penis.

**Gleason grade**

A number from 1 through 5, describing how much the cancer cells look like normal prostate cells under the microscope based on the *Gleason system*. Those that look a lot like normal cells are graded 1, while those that look the least like normal cells are graded 5. See also *Gleason score, grade, prostate*.

**Gleason score or Gleason sum**

The sum of the 2 Gleason grades used to classify prostate cancer based on how abnormal the cells look under the microscope. Because prostate cancers
often have areas with different grades, a grade is assigned to the 2 areas that make up most of the cancer. These 2 grades are added to give a Gleason score between 2 and 10. This is used along with other information to stage the cancer. The higher the Gleason score, the faster the cancer is likely to grow and the more likely it is to spread beyond the prostate. See also **Gleason grade, prostate, staging.**

**grade**

The grade of a cancer tells how abnormal its cells (or patterns of cells) look under the microscope. There are different grading systems for different types of cancers. Grading is done by a pathologist who looks at sample tissue from the biopsy. Cancers with higher grades (more abnormal-looking cells or patterns) tend to grow and spread more quickly and have a worse outlook. See also **biopsy, pathologist, staging.**

**graft-versus-host disease**

Often shortened to **GVHD.** The condition that results when the immune cells of a transplant (usually a bone marrow or other type of stem cell transplant) from a donor attack the tissues of the person receiving the transplant. See also **allogeneic stem cell transplant, bone marrow, hematopoietic stem cell transplant, stem cells, umbilical cord blood transplant.**

**granulocytopenia** [GRAN-you-lo-SY-toe-PEE-nee-uh]

A lower-than-normal number of a type of white blood cell called a **granulocyte** (GRAN-you-lo-SITE). See also **white blood cell.**

**gray** [Gy]

A unit for measuring radiation transfer. See also **radiation dose.**

**growth factors**

Naturally occurring proteins that help cells grow and divide. Some cancer cells are too sensitive to growth factors, which helps them grow quickly. See also **epidermal growth factors.**

**guaiac** [GWI-ack]

Substance used to test poop (**stool**) to see if it contains blood. See also **fecal occult blood test.**

**gynecologic oncologist** [GUY-nuh-kuh-LA-jik on-KAHL-uh-jist]
A doctor who specializes in cancers of the female sex (reproductive) organs. See also cancer care team.

gynecologist 📌 [GUY-nuh-KAHL-uh-jist]
A doctor who specializes in women’s health.

gynecomastia 📌 [GUY-nuh-ko-MAST-tee-uh]
Male breast enlargement, sometimes with breast tenderness; a possible side effect of some hormone treatments. See also hormone therapy.

Hamartomas 📌 [HAM-ar-TOE-muhs]
A non-cancerous tumor made up of an abnormal mixture of cells and tissues that are normally found in the part of the body where the tumor grows.

Hand-foot syndrome 📌
Also called palmar-plantar erythrodysesthesiA (PAL-mer-PLAN-ter eh-RITH-roh-DIS-es-THEE-zhuh). A condition marked by pain, swelling, numbness, tingling, and/or redness of the hands and/or feet. Can be a side effect of certain chemotherapy drugs. See also chemotherapy.

HDR brachytherapy 📌
See high-dose rate or temporary brachytherapy.

Health care power of attorney 📌
See durable power of attorney for health care.

Hemangioma 📌 [he-MAN-jee-OH-muh]
A birthmark often called a “strawberry mark.” A non-cancerous tumor made of blood vessels that often goes away over time.

Hematochezia 📌 [HE-muh-toe-KEEZ-ee-uh or hem-AT-uh-KEEZ-ee-uh]
Bright red blood in the poop (stool).
hematocrit [hem-AT-uh-krit]
Often shortened to HCT. The percentage of the blood volume made up of red blood cells, which is often measured as part of a complete blood count. This can get low in people with cancer, either as a result of problems from the cancer itself (such as bleeding) or from treatments such as chemotherapy. The normal range varies by lab, but typically is around 37-52% of the blood volume. See also complete blood count.

hematologist [HE-muh-TAHL-uh-jist]
A doctor who specializes in treating diseases of the blood and blood-forming tissues.

hematoma [HE-muh-TOE-muh]
A collection of blood outside a blood vessel caused by a leak or an injury. A bruise is an example of a hematoma.

hematopoietic stem cell transplant [he-MAT-oh-poi-ET-ick]
A procedure used to restock the stem cells in the bone marrow after it has been destroyed by chemotherapy, radiation, or disease. Stem cells can be taken from bone marrow or circulating (peripheral) blood to be given to the patient. Stem cells may be the patient’s own (autologous), or may come from someone else (allogeneic), such as a matched donor or the banked umbilical cord blood of a newborn. See also autologous stem cell transplant, allogeneic stem cell transplant, bone marrow, stem cells.

hematuria [HE-muh-TUR-ee-uh]
Blood in the urine. See also urine.

hemicolecotomy [HEM-ee-ko-LEK-tuh-me]
Surgical removal of part of the colon.

hemoglobin [HE-muh-GLO-bin]
Often shortened to HGB. The protein in red blood cells that carries oxygen, which is often measured as part of a complete blood count. Hemoglobin can get very low in people with cancer, either as a result of problems from the cancer itself (such as bleeding) or from treatments such as chemotherapy. Normal ranges vary by lab, but typically are around 12-18 gm/dL. See also complete blood count.
hemorrhoids [HEM-uh-royds]
Enlarged or swollen veins inside the rectum or colon. They don’t cause cancer or become cancer, but they can cause pain, itching, and irritation. They can also cause bleeding, which can result in a positive fecal occult blood test or fecal immunochemical test even when no cancer is present. See also colon, colorectal cancer screening, fecal immunochemical test, fecal occult blood test, rectum.

hepatic [heh-PAT-ick]
Having to do with the liver.

hepatomegaly [heh-PAT-o-MEG-uh-lee]
Enlargement of the liver.

HER2 gene [sometimes called HER2/neu]
See human epidermal growth factor receptor 2.

hereditary cancer
Cancer caused by an inherited gene mutation (about 5% to 10% of all cancers). See also hereditary cancer syndrome, inherited disease, mutation.

hereditary cancer syndrome
A condition linked with a higher risk of cancer that occurs in several family members because of an inherited, mutated gene; for example, familial adenomatous polyposis. See also familial adenomatous polyposis, gene, hereditary cancer, inherited disease, mutation.

hereditary non-polyposis colon cancer [huh-RED-ih-TER-ee NON-pah-lih-PO-sis]
Also called HNPPC or Lynch syndrome. An inherited condition that greatly increases a person’s risk for colorectal cancer, as well as cancer of the lining of the uterus (endometrial cancer), ovarian cancer, and some other cancers. People with this condition tend to develop cancer at a young age, often without first having many polyps. See also hereditary cancer syndrome, polyp.

hereditary prostate cancer genes
Any of a number of genes that are linked to prostate cancer. Inherited changes in these genes may make prostate cancer more likely to develop in some men. Research on these genes is still in early stages, and genetic tests for most of them are not yet available. See also gene, prostate.

hesitancy

See urinary hesitancy.

high risk

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How cells or tissues look under a microscope.

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A type of lymphoma (cancer of the lymphatic system) that’s often curable. Formerly called Hodgkin’s disease. See also lymph node, lymphatic system, lymphoma.

home health nurse
A nurse who gives treatment or medicines in the home, teaches patients how to care for themselves, and assesses patients to see if further medical attention is needed.

**homogeneous** [HOME-uh-JEE-ne-us]

Cells or tissue that look the same throughout when seen under a microscope. See also histology.

**hormone**

A chemical substance released in the body by the endocrine glands such as the thyroid, adrenals, or ovaries. Hormones travel through the bloodstream and control various body functions. Testosterone and estrogen are examples of hormones. See also adrenal gland, endocrine glands, hormone therapy, ovary, thyroid.

**hormone receptor**

A protein on a cell’s surface or within the cell that binds to a hormone. Some tumors can be tested for hormone receptors to see if they can be treated with hormones or anti-hormones. See also hormone therapy, hormone receptor assay.

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A test to see if a cancer is likely to be affected by hormones or if it can be treated with hormones. See also estrogen receptor assay, progesterone receptor assay.

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See menopausal hormone therapy.

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**hormone-dependent**
A term used to describe any type of cancer that depends on hormones for growth and survival, such as some breast and prostate cancers. See also hormone therapy, androgen-dependent, hormone receptor, hormone receptor assay.

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Not responsive to hormone treatments. See also androgen-independent, hormone therapy.

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A special kind of care for people in the final phase of illness, as well as their families and caregivers. The care usually takes place in the patient’s home or in a home-like facility. See also palliative treatment.

Hot flush or hot flash

Sudden brief feeling of body warmth, along with flushing of the skin and sweating; common during menopause and some types of hormone therapy. See also androgen deprivation therapy, hormone therapy, menopause.

HPV

See human papilloma virus.

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Also called HER2 or HER2/neu. A protein that’s present in very small amounts on the outer surface of normal cells. HER2 stimulates cell growth, and cancers that produce too much of this protein tend to grow and spread faster. Drugs that attach to the HER2 protein can be used to treat cancers with too much HER2.

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Often shortened to HPV. A common virus with more than 100 types, some of which cause changes in cells that can grow into cancer or warts. Nearly all cervical cancers are related to HPV, as are some cancers of the anus, penis, vagina, vulva, and urethra and some head and neck cancers. There’s a test for HPV that can be done along with a woman’s Pap test. See also Pap test.

humerus [HYOO-mer-us]
The long bone in the upper arm that goes from the shoulder to the elbow.

**hydatidiform mole** [HI-duh-TID-ih-form]

See **gestational trophoblastic disease**.

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Liquid nutrition given into a vein (*intravenously* or *IV*). Also called **parenteral nutrition**.

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Too much growth of cells or tissue in a specific area, such as the lining of the prostate. See also **benign prostatic hyperplasia, prostate**.

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A type of growth on the inner lining of the colon or rectum that’s unlikely to become cancer. Some doctors think that certain hyperplastic polyps can become pre-cancerous, or may mean a risk of developing adenomatous polyps and cancer later, especially if the polyps are in the ascending colon. See also **adenomatous polyp, ascending colon, colon, polyp, rectum**.

**hypertension** [HI-per-TEN-shun]

High blood pressure.

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High body temperature or fever. Hyperthermia is sometimes use as part of cancer treatment, either by raising body temperature or raising the temperature only in the affected body part. It can be used to damage and kill cancer cells directly or to make them more sensitive to the effects of radiation or anti-cancer drugs.

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The enlargement of an organ or body tissue due to an increase in the size of its cells, rather than an increase in the number of cells. Compare to **hyperplasia**.

**hypopharynx** [HI-po-FAIR-ingks]
Also called the laryngopharynx (luh-RIN-jo-FAIR-ingks). The lower part of the throat (pharynx), extending downward from the voice box (larynx) to the swallowing tube (esophagus). See also esophagus, larynx, pharynx.

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An operation to remove the uterus (womb). This can be done through a cut (incision) in the belly (abdomen), through a few small cuts in the lower belly (called laparoscopic hysterectomy), or through the vagina. The ovaries may be removed (oophorectomy) at the same time, as may the fallopian tubes (salpingectomy). See also fallopian tubes, uterus, oophorectomy, ovary, vagina.

**hamartomas** [HAM-ar-TOE-muhs]

A non-cancerous tumor made up of an abnormal mixture of cells and tissues that are normally found in the part of the body where the tumor grows.

**hand-foot syndrome**

Also called palmar-plantar erythrodysesthesia (PAL-mer-PLAN-ter eh-RITH-roh-DIS-es-THEE-zuh). A condition marked by pain, swelling, numbness, tingling, and/or redness of the hands and/or feet. Can be a side effect of certain chemotherapy drugs. See also chemotherapy.

**HDR brachytherapy**

See high-dose rate or temporary brachytherapy.

**health care power of attorney**

See durable power of attorney for health care.

**hemangioma** [he-MAN-gee-OH-muh]

A birthmark often called a “strawberry mark.” A non-cancerous tumor made of blood vessels that often goes away over time.

**hematochezia** [HE-muh-toe-KEEZ-ee-uh or hem-AT-uh-KEEZ-ee-uh]

Bright red blood in the poop (stool).

**hematocrit** [hem-AT-uh-krit]
Often shortened to HCT. The percentage of the blood volume made up of red blood cells, which is often measured as part of a complete blood count. This can get low in people with cancer, either as a result of problems from the cancer itself (such as bleeding) or from treatments such as chemotherapy. The normal range varies by lab, but typically is around 37-52% of the blood volume. See also complete blood count.

**hematologist** [HE-muh-TAHL-uh-jist]
A doctor who specializes in treating diseases of the blood and blood-forming tissues.

**hematoma** [HE-muh-TOE-muh]
A collection of blood outside a blood vessel caused by a leak or an injury. A bruise is an example of a hematoma.

**hematopoietic stem cell transplant** [he-MAT-oh-poi-ET-ick]
A procedure used to restock the stem cells in the bone marrow after it has been destroyed by chemotherapy, radiation, or disease. Stem cells can be taken from bone marrow or circulating (peripheral) blood to be given to the patient. Stem cells may be the patient’s own (autologous), or may come from someone else (allogeneic), such as a matched donor or the banked umbilical cord blood of a newborn. See also autologous stem cell transplant, allogeneic stem cell transplant, bone marrow, stem cells.

**hematuria** [HE-muh-TUR-ee-uh]
Blood in the urine. See also urine.

**hemicolecotomy** [HEM-ee-ko-LEK-tuh-me]
Surgical removal of part of the colon.

**hemoglobin** [HE-muh-GLO-bin]
Often shortened to HGB. The protein in red blood cells that carries oxygen, which is often measured as part of a complete blood count. Hemoglobin can get very low in people with cancer, either as a result of problems from the cancer itself (such as bleeding) or from treatments such as chemotherapy. Normal ranges vary by lab, but typically are around 12-18 gm/dL. See also complete blood count.

**hemorrhoids** [HEM-uh-royds]
Enlarged or swollen veins inside the rectum or colon. They don’t cause cancer or become cancer, but they can cause pain, itching, and irritation. They can also cause bleeding, which can result in a positive fecal occult blood test or fecal immunochemical test even when no cancer is present. See also colon, colorectal cancer screening, fecal immunochemical test, fecal occult blood test, rectum.

**hepatic** [heh-PAT-ick]
Having to do with the liver.

**hepatomegaly** [heh-PAT-o-MEG-uh-lee]
Enlargement of the liver.

**HER2 gene** [sometimes called HER2/neu]
See human epidermal growth factor receptor 2.

**hereditary cancer**
Cancer caused by an inherited gene mutation (about 5% to 10% of all cancers). See also hereditary cancer syndrome, inherited disease, mutation.

**hereditary cancer syndrome**
A condition linked with a higher risk of cancer that occurs in several family members because of an inherited, mutated gene; for example, *familial adenomatous polyposis*. See also familial adenomatous polyposis, gene, hereditary cancer, inherited disease, mutation.

**hereditary non-polyposis colon cancer** [huh-RED-ih-TER-ee NON-pah-lih-PO-sis]
Also called HNPCC or Lynch syndrome. An inherited condition that greatly increases a person’s risk for colorectal cancer, as well as cancer of the lining of the uterus (*endometrial cancer*), ovarian cancer, and some other cancers. People with this condition tend to develop cancer at a young age, often without first having many polyps. See also hereditary cancer syndrome, polyp.

**hereditary prostate cancer genes**
Any of a number of genes that are linked to prostate cancer. Inherited changes in these genes may make prostate cancer more likely to develop in
some men. Research on these genes is still in early stages, and genetic tests for most of them are not yet available. See also gene, prostate.

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J

K

Kaposi sarcoma [KAP-o-see sar-KO-muh]
Also called Kaposi’s sarcoma. A type of cancer that grows from cells lining the blood vessels or lymph vessels. It can affect many tissues and organs, and often forms brown, purple or red blotches on the skin. It is caused by infection with a virus in the herpes family, KHSV (Kaposi sarcoma herpesvirus), and is most often seen in people with weakened immune systems.

Kegel exercises
Exercises to strengthen certain muscles in the bottom of the pelvis. These exercises may help men and women with certain bladder control problems. See also urinary incontinence.

Kidney
An organ that filters the blood to remove excess water, salt, and waste in the form of urine. A person normally has 2 kidneys. See also ureter, bladder, urethra, urine.

KRAS or K-RAS
A gene that, when changed (mutated), might cause cancer or help it to grow. This is not an inherited mutation (passed on from a parent), it’s a spontaneous mutation that starts in a single cell which then grows and multiplies. See also gene, mutation.

Kyphoplasty [KI-foe-PLASS-tee]
A procedure used to repair a broken bone in the spine (vertebra) and reduce pain. A balloon is put into the area of broken bone and inflated to expand the bone to its normal size. Bone cement is then injected into the space. Compare to *vertebroplasty*. See also *vertebra*.

**labia** [LAY-be-uh]
Lips or lip-like structures, such as the lips at the opening of the mouth or the folds on either side of the vagina. The singular is *labium*. See also *vulva*.

**lactation** [lack-TAY-shun]
Production of milk in the breast.

**laparoscope** [LAP-uh-ruh-SCOPE]
A long, flexible, thin tube with a lens on the end that’s put into the belly (abdomen) through a very small cut. The laparoscope lets the surgeon see organs and lymph nodes inside the abdomen, and remove them using special surgical tools that fit through the laparoscope. See also *abdomen*, *laparoscopic surgery*, *lymph node*.

**laparoscopic lymphadenectomy** [LAP-uh-ruh-SKAH-pick LIMF-ad-uh-NECK-tuh-me]
Removal of lymph nodes with a laparoscope. See also *laparoscope*, *lymph node*.

**laparoscopic radical prostatectomy** [LAP-uh-ruh-SKAH-pick RAD-ick-uhl PROS-tuh-TECK-tuh-me]
A surgical procedure in which the prostate is removed using a laparoscope. See also *laparoscope*, *prostate*.

**laparoscopic surgery** [LAP-uh-ruh-SKAH-pick]
Surgery using a narrow tube-like instrument called a laparoscope that’s put into the body through a small cut (incision). Other tubes are put in other nearby incisions to allow the surgeon to work inside the body. A surgeon
might use this method to remove tissue or an organ while watching the procedure on a TV screen. The small incisions led to the name “keyhole surgery” or minimally invasive surgery. See also incision, laparoscope.

**laparoscopy** [LAP-uh-RAHS-kuh-pee]

An examination of the inside of the belly (abdomen) using an instrument called a laparoscope that’s put in through a small cut (incision). Compare with endoscopy. See also abdomen, incision, laparoscope.

**large cell lung cancer**

See non-small cell lung cancer.

**large intestine**

The lower part of the intestine, running from the small intestine to the anus, which absorbs most of the fluid from the poop (stool). It’s wider (but not longer) than the small intestine. The large intestine contains the cecum, colon, and rectum. See also anus, cecum, colon, rectum, small intestine.

**laryngectomy** [LAIR-en-JEK-tuh-me]

Surgery to remove the voice box (larynx), usually because of cancer. See also larynx.

**laryngopharynx** [luh-RIN-jo-FAIR-ingks]

Also called the hypopharynx (HI-po-FAIR-ingks). The lower part of the pharynx (throat), extending downward from the voice box (larynx) to the swallowing tube (esophagus). See also esophagus, larynx, pharynx.

**larynx** [LAIR-ingks]

Also called the voice box. The organ of voice production that sits below the root of the tongue, at the top of the windpipe (trachea). See also trachea.

**latissimus dorsi flap procedure** [la-TISS-ih-mus DORS-eye]

A method of breast reconstruction in which a long flat muscle of the back and the attached skin are moved into the breast area. This method almost always uses a breast implant. See also breast reconstruction, breast implant.

**laxative** [LACK-suh-tiv]
A medicine that helps make poop (stool) easier to pass and promotes bowel movements. Many are taken by mouth, but some come as a suppository which is put in the rectum. Laxatives work in different ways; for example, by pulling fluid into the intestine or irritating the bowel to stimulate movement. Others add bulk (such as fiber), soften the stool, or lubricate it for easier passage.

**leiomyoma** [LIE-o-my-O-muh]

Also called a fibroid (FI-broyd). A smooth muscle tumor that’s not cancer. When it occurs in the womb (uterus), it’s called a uterine fibroid tumor or a fibroma. See also tumor, uterine fibroid tumor, uterus.

**leptomeningeal spread** [LEP-toh-meh-NIN-jee-ul]

Also called leptomeningeal carcinoma (CAR-sin-O-ma), leptomeningeal metastasis (meh-TAS-tuh-sis), and carcinomatous meningitis (car-sin-O-muh-TOE-sis MEH-nin-JIE-tis). A serious problem that occurs when cancer cells spread from the original tumor (primary site) to the thin layers of tissue that cover and protect the brain and spinal cord (the meninges). See also brain, spinal cord.

**lesion** [LEE-zhun]

An area of abnormal body tissue. May be used to describe a lump, mass, or tumor; also a spot or change in the way the skin looks or feels. See also mass, tumor.

**leukemia** [loo-KEY-me-uh]

Cancer of the blood or blood-forming organs. Leukemias are often classified based on the types of cells in which they start (myeloid versus lymphoid) and by how quickly they are likely to grow (acute versus chronic). People with leukemia often have a very high number of white blood cells (leukocytes). See also lymphoid leukemia, myeloid leukemia, white blood cells.

**leukocyte** [LOO-ko-SITE]

White blood cell. See also white blood cells.

**leukocytosis** [LOO-ko-sy-TOE-sis]

Having more white blood cells than normal. See also white blood cells.

**leukopenia** [LOO-ko-PEE-nee-uh]
Having too few white blood cells, which is common in people with cancer and is often a side effect of chemotherapy. See also chemotherapy, white blood cells.

**leukoplakia** [LOO-co-PLAY-key-uh]

An abnormal white patch inside the mouth or in other parts of the body. These may become cancer.

**LH**

See luteinizing hormone.

**LHRH**

See luteinizing hormone-releasing hormone.

**LHRH agonists**

See luteinizing hormone-releasing hormone analogs.

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**libido** [lih-BE-doe or lih-BY-doe]

Sex drive.

**limited breast surgery**

Also called lumpectomy, segmental excision, and tylectomy. Surgery to remove the breast cancer and a margin of normal tissue around the cancer, but leaving most of the breast. It’s almost always combined with removal of one or more axillary (underarm) lymph nodes, and is usually followed by radiation therapy. See also axillary dissection, lymph node, mastectomy, radiation therapy, surgical margin.

**linear accelerator**

Also called a linac. A machine used to create high-energy radiation beams for use in external-beam radiation therapy to treat cancer. See also external-beam radiation therapy.
lipoma [lie-PO-muh or lip-OH-muh]
A tumor of fatty tissue that’s not cancer. See also tumor.

liver
The organ that cleans blood and makes bile to help digest foods. It’s located on the upper right side of the belly (abdomen). See also abdomen, digestive system.

living will
A legal document that allows a person to decide what should be done if he or she becomes unable to make health care decisions; a type of advance directive. Compare to durable power of attorney for health care. See also advance directives.

lobectomy [low-BEK-tuh-me]
Surgery to remove a lobe of an organ – usually the lung.

lobular carcinoma in situ [LOB-yuh-lur CAR-sin-O-ma in SY-too]
Often shortened to LCIS, also called lobular neoplasia. Although not a true cancer or pre-cancer, it’s sometimes listed as a non-invasive type of breast cancer. It starts within the milk-producing glands (lobules) of the breast but does not grow through the wall of the lobules. It’s not a true pre-cancer because it’s not thought to go on to become an invasive cancer. But if a woman has LCIS, she is at higher risk of developing an invasive cancer in either breast later in life. See also invasive lobular carcinoma, pre-cancerous.

lobule [LOB-youl]
A small, usually round, part of a larger body structure, such as the glands in a woman’s breasts that produce milk.

local anesthesia
See anesthesia.

local excision [LO-kul eck-SIH-zhun]
Surgery to remove small superficial (surface) cancers or polyps. See also lesion, polyp.

local recurrence
See recurrence.

**Local therapy**

Treatment of cancer at its site, so that the rest of the body is not affected. Surgery and radiation are examples of local therapy. Compare to systemic therapy.

**Local transanal resection** [LO-kul tranz-A-nuhl re-SEK-shun]

Surgery for some small, early rectal cancers that is done with instruments put in through the anus, without cutting the belly (abdomen). The surgeon cuts through all layers of the rectum to remove invasive cancers as well as some normal rectal tissue, and then closes the hole in the rectal wall. Compare to low anterior resection. See also abdomen, anus, invasive cancer, rectum.

**Localized cancer**

Also called local cancer. A cancer that has not spread to distant parts of the body. It’s still only in the organ where it started. Compare with distant cancer, metastasis.

**Low anterior resection** [low an-TEER-ee-yer re-SEK-shun]

A surgical approach used for some cancers in the upper third of the rectum, close to where it connects to the colon. The cut (incision) is made through the belly (abdomen), and the cancer is removed along with a margin of normal tissue, lymph nodes, and fatty and fibrous tissue around the rectum. The colon is re-attached to the part of the rectum that’s left so that a colostomy is not needed. See also colo-anal anastomosis, colon, colostomy, lymph node, rectum, surgical margin.

**Low-dose rate brachytherapy** [BRAKE-ee-THER-uh-pee]

Often shortened to LDR brachytherapy. Treatment in which pellets or seeds of radioactive material are placed inside cylinders or thin needles, and put into the cancerous area. They are left in place for days at a time, and sometimes permanently. Compare to high-dose rate brachytherapy. See also brachytherapy, permanent brachytherapy.

**Lower GI series**

A series of x-rays of the colon and rectum taken after a barium enema is given. See also barium enema, colon, rectum, x-ray.
**lumbar puncture**
Often shortened to LP. A procedure in which a thin, hollow needle is placed between the bones of the spine (vertebrae) and into the spinal canal to withdraw a small amount of spinal fluid for testing or to give medicine into the brain and spinal cord (central nervous system) through the spinal fluid. Sometimes called a spinal tap. See also cerebrospinal fluid, spinal cord, vertebra.

**Lump**
Any kind of mass in the body, especially on the body surface. See also mass, tumor.

**lumpectomy**  [lump-ECK-tuh-me]
Surgery to remove a breast lump and a margin of normal tissue. See also breast conservation therapy, surgical margin.

**lung cancer**
cancer that starts in tissues of the lung, usually in the cells lining air passages. There are 2 main types of lung cancer: non-small cell lung cancer and small cell lung cancer. See also non-small cell lung cancer, small cell lung cancer.

**luteinizing hormone**  [LOO-tee-uH-NY-zing]
Often shortened to LH. A hormone made by the pituitary that stimulates the testicles to make testosterone in men and the ovaries to make estrogen and progesterone in women. See also estrogen, hormone, ovary, pituitary, testicles, testosterone.

**luteinizing hormone-releasing hormone**  [LOO-tee-uH-NY-zing]
Also called LHRH or gonadotropin-releasing hormone (GnRH). A hormone made by the hypothalamus, a tiny gland in the brain, which causes the pituitary to make and release luteinizing hormone (LH). See also hormone, luteinizing hormone, pituitary.

**luteinizing hormone-releasing hormone analogs**  [LOO-tee-uH-NY-zing]
Also called LHRH analogs, LHRH agonists, gonadotropin-releasing hormone (GnRH) analogs, or GnRH agonists. Man-made hormones that keep the testicles and ovaries from making sex hormones by blocking other hormones that are needed to make them. In men, they stop the testicles from making testosterone and are sometimes used to treat prostate cancer. See also androgen deprivation therapy, chemical castration, hormone, hormone therapy, luteinizing hormone, luteinizing hormone-releasing hormone antagonists, testicles, ovary.

**luteinizing hormone-releasing hormone antagonists** [LOO-tee-uh-NY-zing]

Also called LHRH antagonists or gonadotropin-releasing hormone (GnRH) antagonists. A type of drug thought to work in a way much like the LHRH analogs, but which lower testosterone levels more quickly and without causing the tumor symptoms to worsen (known as tumor flare). See also androgen deprivation therapy, chemical castration, luteinizing hormone-releasing hormone, luteinizing hormone-releasing hormone analogs, testosterone.

**lycopenes** [LIE-kuh-peon]

Vitamin-like antioxidants that help prevent damage to DNA (deoxyribonucleic acid). These substances are found in certain fruits and vegetables, such as tomatoes, pink grapefruit, and watermelon. Some studies have suggested they might help lower the risk of some cancers (especially prostate cancer), but other studies have not found a link between lycopene and cancer risk. Research in this area continues. See also antioxidants, deoxyribonucleic acid.

**lymph** [limf]

Clear fluid that flows through the lymphatic vessels and contains white blood cells called lymphocytes. These cells are important in fighting infections. See also lymph node, lymphatic system, lymphocyte, immune system.

**lymph node** [limf node]

A small, bean-shaped collection of immune system tissue found throughout the body along lymphatic vessels. They remove cell waste, germs, and other harmful substances from lymph. Cancers often spread to nearby lymph nodes before reaching other parts of the body. Sometimes called “lymph glands.” See also immune system, lymph, lymphatic system.
lymph node biopsy

A test in which all or part of a lymph node is removed and looked at under a microscope to find out if cancer has reached the lymph nodes. See also biopsy, lymph node.

lymph node dissection

See lymphadenectomy.

lymphadenectomy

Also called lymph node dissection. Surgical removal of one or more lymph nodes. After removal, the lymph nodes are looked at under a microscope to see if cancer has spread to them. See also lymph, lymph node, lymphatic system.

lymphadenopathy

See adenopathy.

lymphatic system

The tissues and organs (including lymph nodes, spleen, thymus, and bone marrow) that produce and store lymphocytes (white blood cells that fight infection) and the channels or vessels that carry the lymph fluid. This is an important part of the body’s immune system. Invasive cancers sometimes get into the lymphatic vessels and spread (metastasize) to lymph nodes. See also bone marrow, invasive cancer, lymph, lymph node, lymphocyte, metastasize, thymus, spleen.

lymphedema

A complication in which fluid collects in the arms, legs, or other part of the body. This can happen after the lymph nodes and vessels are removed by surgery, injured by radiation, or blocked by a tumor that slows the normal fluid drainage. Lymphedema can happen even years after treatment and can become a life-long problem. See also lymph, lymph node, lymphatic system.

lymphocyte

A type of white blood cell that helps the body fight infection. See also white blood cells.

lymphocytosis

See lymphocytosis.
Having an excess of lymphocytes. See also lymphocyte.

**lymphoid leukemia** [LIM-foi loo-KEY-me-uh]

Also called lymphoblastic (LIM-fo-BLAS-tik) leukemia and/or lymphocytic (LIM-fo-SIH-tik) leukemia. A type of cancer that starts in the white blood cells (lymphocytes) in the bone marrow. Lymphoid leukemia can be chronic (CLL) or acute (ALL). Compare to myeloid leukemia. See also bone marrow, leukemia, lymphocyte, white blood cells.

**lymphokine** [LIM-fo-kine]

See cytokine.

**Lymphoma** [lim-FOAM-uh]

A cancer of immune system cells called lymphocytes (a type of white blood cell). It often affects the lymphatic system, a network of thin vessels and nodes throughout the body that helps to fight infection. The 2 main types of lymphoma are Hodgkin disease and non-Hodgkin lymphoma. See also Hodgkin disease, lymph node, lymphatic system, lymphocyte, non-Hodgkin lymphoma, white blood cells.

**lymphomatous meningitis** [lim-FOH-muh-tus MEH-nin-JY-tis]

Also called lymphomatous leptomeningitis (lim-FOH-muh-tus LEP-toe-MEH-nin-JY-tis). A serious problem that occurs when lymphoma cells spread from the original tumor (primary site) to the thin layers of tissue that cover and protect the brain and spinal cord (the meninges). See also brain, lymphoma, spinal cord.

**Lynch syndrome**

Another term for hereditary non-polyposis colorectal cancer (HNPCC); an inherited tendency to develop certain cancers. See also hereditary non-polyposis colorectal cancer, inherited disease.

**M**

**macroglobulinemia** [MACK-row-GLOB-yuh-lin-EE-mee-uh]

Also called macroglobulinaemia. A rare disease characterized by the presence of large, abnormal proteins in the blood. See also alpha-2 macroglobulin, protein.
A condition in which there are too many large proteins in the blood, which may reduce or clog blood flow in the smaller blood vessels. Waldenstrom macroglobulinemia is a type of non-Hodgkin lymphoma with such proteins. See also non-Hodgkin lymphoma, Waldenstrom macroglobulinemia.

**macrophage** 💼 [MACK-ro-faj]
A type of white blood cell that engulfs and destroys foreign materials. See also white blood cells.

**Magnetic resonance imaging** 📸
Often shortened to MRI. A method of taking detailed pictures of the inside of the body. Instead of using x-rays, MRI uses a powerful magnet to send radio waves through the body. The images appear on a computer screen as well as on film. Like x-rays, the procedure is painless, but some people may feel confined inside the MRI machine. See also imaging tests, x-ray.

**malignant** 💼 [muh-LIG-nunt]
Cancerous; dangerous or likely to cause death if untreated. Compare with benign. See also cancer.

**malignant mesothelioma** 💼 [MEZ-oh-THEE-lee-OH-muh]
A rare cancer that starts in the covering of the lungs (pleura), the heart (pericardium), or the lining of the abdomen (peritoneum). An extremely rare form can affect the inner covering of the testicles.

**malignant tumor** 💼 [muh-LIG-nunt TOO-mer or TYOO-mer]
A mass of cancer cells that may invade nearby tissues or spread (metastasize) to distant areas of the body. Not all cancers form tumors, and not all tumors are malignant. See also malignant, tumor.

**mammary** 💼 [MAM-uh-ree]
Having to do with the breast.

**mammary lymph nodes** 💼
Lymph nodes that are inside the chest near the breastbone (sternum). See also lymph nodes.

**mammogram** [MAM-uh-GRAM]

Also called mammography (mam-Ah-gruff-ee). An x-ray of the breast; a method of finding breast cancer that can’t be felt using the fingers. Mammograms are done with a special type of x-ray machine used only for this purpose. Screening mammograms are used to help find breast cancer early in women who don’t have any symptoms. Diagnostic mammograms help the doctor learn more about breast lumps or the cause of breast changes. See also screening, x-ray.

**Mammoplasty**

Any plastic surgery to rebuild the breast or to change the shape, size, or position of the breast. Reduction mammoplasty reduces the size of the breast. Augmentation mammoplasty enlarges a woman’s breast, usually with implants. See also breast reconstruction, implants.

**margin** [MAR-jin]

In cancer surgery or biopsy, the tissue beyond the visible edge of the tumor or abnormal tissue that’s removed along with the tumor or area of concern in an effort to get all of the cancer. See also surgical margin.

**mass**

Any sort of lump, which may or may not be cancer. See also tumor.

**mastectomy** [mas-TEK-tuh-me]

Surgery to remove all or part of the breast and sometimes other tissue. Some of the more common types of mastectomies are listed below.

- Modified radical mastectomy removes the breast, skin, nipple, areola, and most of the axillary lymph nodes on the same side, leaving the chest muscles intact.

- Partial or segmental mastectomy removes only the part of the breast that has the cancer and a margin of healthy breast tissue around the tumor. Also called breast-conserving surgery or lumpectomy.
Prophylactic mastectomy is a mastectomy done before any evidence of cancer can be found, for the purpose of preventing cancer.

**Quadrantectomy** (QUAD-runt-EK-tuh-me) is a partial mastectomy in which the quarter of the breast that has a tumor is removed.

Radical mastectomy removes the breast, skin, nipple, areola, both chest (pectoral) muscles, and all axillary lymph nodes on the same side.

Simple mastectomy or total mastectomy removes only the breast, skin, nipple, and areola.

Skin-sparing mastectomy leaves as much of the breast skin as possible (but removes the nipple and areola) to improve the way the reconstructed breast looks.

See also areola, axillary dissection, lymph node, nipple, surgical margin.

**mastitis** [mass-TIE-tiss]

Inflammation or infection of the breast.

**mediastinal** [ME-dee-uh-STY-nul]

Related to a part of the body that lies between other parts. In cancer care, often refers to the area in the center of the chest, between the lungs. See also mediastinum.

**mediastinoscopy** [ME-dee-uh-stine-AH-skuh-pee]

Examination of the space between the lungs using a thin, lighted, flexible tube inserted under the chest bone (sternum). This lets the doctor see the lymph nodes in this area and remove samples to check for cancer. See also biopsy, lymph node.

**mediastinum** [ME-dee-uh-STY-num]

Any structure or area of the body that’s between other parts. Commonly refers to the central part of the chest, which is surrounded by the breastbone (sternum), the backbone, and both lungs. The chest mediastinum contains the heart, large blood vessels, main breathing tube (trachea), swallowing tube (esophagus), and lymph nodes. See also lymph nodes.

**medical oncologist** [MED-ih-kull on-KAHL-uh-jist]
A doctor who is specially trained to diagnose and treat cancer with chemotherapy and other drugs. See also cancer care team, chemotherapy.

**medical power of attorney**

See durable power of attorney for health care.

**medullary carcinoma** [MED-you-LAIR-ee]

A special type of invasive ductal carcinoma of the breast. There’s also a rare medullary type of thyroid cancer. See also invasive ductal carcinoma.

**melanocytes** [mel-AN-o-sites]

The cells that make the brown pigment called melanin that gives skin its color.

**Melanoma** [MEL-uh-NO-muh]

A cancerous tumor that starts in the cells called melanocytes that make the skin coloring. When found in the skin or under the nails, it’s called cutaneous melanoma, but it can grow in many other parts of the body, including the eyes, mouth, and genitals. It’s almost always curable when found early, but it can spread quickly if not treated.

**menarche** [MEN-ar-key or men-AR-key]

A woman’s first menstrual period. Early menarche (before age 12) is a risk factor for breast cancer, possibly because the earlier a woman’s periods begin, the longer the breasts are exposed to estrogen. See also estrogen, risk factor.

**meninges** [muh-NIN-jeez]

The 3 thin layers of tissue the cover the brain and spinal cord. See also brain, intrathecal, spinal cord.

**menopausal hormone therapy**

The use of estrogen (and often progesterone) from an outside source after the body has stopped making its own supply because of natural or induced menopause. This type of hormone therapy is sometimes given to relieve symptoms of menopause. Studies have found that taking estrogen and progesterone together increases breast cancer risk, as well as the risk of heart...
disease and blood clots, although it might lower the risk of colorectal cancer. See also estrogen, estrogen therapy, menopause, progesterone.

**menopause 🕑 [MEN-uh-paws]**
The phase in a woman’s life when monthly cycles of menstruation stop. During this time, hormone levels typically fluctuate before they stabilize at much lower levels. Menopause usually takes place in a woman’s late 40s or early 50s, but it can also be brought on suddenly by surgical removal of both ovaries (oophorectomy), or by some chemotherapies that destroy ovarian function. See also chemotherapy, estrogen, hormone, ovary.

**messenger RNA 🕑**
The molecule that carries the information from the DNA (deoxyribonucleic acid) genetic code to the parts of the cell that make proteins. See also deoxyribonucleic acid, ribonucleic acid.

**metachronous 🕑 [muh-TACK-ruh-nus]**
Happening at different times. Compare to synchronous.

**metastasis 🕑 [meh-TAS-tuh-sis]**
The spread of cancer cells to one or more sites elsewhere in the body, often by way of the lymph system or bloodstream. Distant metastasis is spread to organs or tissues that are farther away (such as when lung cancer spreads to the brain). The plural of this word is metastases (meh-TAS-tuh-sees). See also cancer, lymph node, lymph system, primary site.

**metastasize 🕑 [meh-TAS-tuh-SIZE]**
To spread to one or more sites elsewhere in the body, often by way of the lymph system or bloodstream. See also lymph system, metastasis.

**metastatic 🕑 [MEH-tuh-STAT-ick]**
Used to describe cancer that has spread from where it started (the primary site) to other structures or organs. See also metastasis.

**meter 🕑**
Also written as m. A metric measure of length. It takes about 39.37 inches (or 100 centimeters) to equal 1 meter. See also centimeter, millimeter.

**microcalcifications 🕑**
See calcifications.

**micrometastases** [MIKE-row-muh-TAS-tuh-sis]
The spread of cancer cells in groups so small that they can only be seen under a microscope.

**microsatellite instability** [MY-crow-SAT-uh-lite IN-stuh-BILL-uh-tee]
Also called MSI. A type of genetic mutation often linked to hereditary non-polyposis colon cancer (HNPCC). This mutation causes size differences in sections of DNA (deoxyribonucleic acid) that are normally the same size in all cells. Testing for MSI is done on tissue taken from the cancer to find out if the DNA is of different lengths; if it is, HNPCC genetic testing is usually offered. See also deoxyribonucleic acid, genetic testing, hereditary non-polyposis colon cancer, mutation.

**microvascular surgery**
An operation that uses a microscope to see and attach very tiny blood vessels to each other.

**microwave therapy**
A way of treating cancer in a few sites, such as the liver, by using heat to destroy the cells. See also ablation.

**millimeter**
Also written as mm. A metric measure of length that is 1/1000 of a meter. 10 mm = 1 centimeter, and 1,000 mm = a meter. About 25 mm (or 2.5 cm) = 1 inch. See also centimeter, meter.

**millirem**
Unit of radiation exposure. See also radiation dose.

**millisievert**
Unit of radiation exposure. See also radiation dose.

**mini-transplant**
A type of allogeneic stem cell transplant in which lower doses of conditioning treatment are used before the transplant. This allows some of the patient’s own bone marrow stem cells to survive, which lowers the risk of very low
blood counts during engraftment. The new stem cells kill off the patient’s stem cells over time, after the transplant engrafts or “takes.” See also allogeneic stem cell transplant, blood count, bone marrow, hematopoietic stem cell transplant, reduced-intensity conditioning, stem cells.

modified radical mastectomy

See mastectomy.

monoclonal antibodies [MA-nuh-KLO-nuhl]

Man-made antibodies that are designed to lock onto certain antigens (substances that can be recognized by the immune system). Monoclonal antibodies have several uses in diagnosing and treating cancer. They are often used to help detect and classify cancer cells under a microscope. “Naked” monoclonal antibodies can attach to parts of cancer cells to either affect the cells directly or mark the cells so they can be found and attacked by the immune system. Other monoclonal antibodies are attached to chemotherapy drugs or radioactive substances and deliver these treatments directly to the cancer cells, killing them with little risk of harming healthy tissue. Research is still going on to learn more ways they can be used to find and treat cancer. See also antibody, antigen, chemotherapy, imaging tests, immunocytochemistry.

morbidity [mor-BID-ih-tee]

Rate of a disease or condition in a population or group; the number of people who have a disease or condition. See also incidence, prevalence.

morphology [mor-FOL-uh-jee]

In cancer, how cells look under the microscope, including shape, structure, pattern, color, and other aspects of their appearance.

mortality [mor-TAL-uh-tee]

Death or being subject to death. Mortality rate is a measure of the rate of death from a disease, also called death rate.

MRI

See magnetic resonance imaging.

mucinous carcinoma [MEW-sin-us CAR-sin-O-ma]
A type of carcinoma that is formed by mucus-producing cancer cells. See also carcinoma.

mucosa [mew-KO-suh]
See mucous membrane.

mucositis [mew-ko-SITE-us]
Inflammation of a mucous membrane, such as the lining of the mouth. See also mucous membrane.

mucous membrane
Also called mucosa. The moist inner lining layer of the mouth, throat, eyelids, nose, urethra, vagina, and digestive system. See also digestive system, urethra, vagina.

mucus [MEW-kus]
The thick fluid secreted by mucous membranes and mucous glands. See also mucous membrane.

multidrug resistance
Often shortened to MDR. Resistance of cancer cells to several types of chemotherapy drugs, typically after being exposed to chemotherapy. May also refer to infections that can no longer be cured by the usual antibiotics. See also chemotherapy.

multiple myeloma
A type of cancer that starts in the plasma cells. Normal plasma cells are mainly found in the bone marrow and are an important part of the body’s immune system. When plasma cells grow out of control, they can form tumors, usually in the bone marrow. If only one tumor forms, it is called solitary (or isolated) plasmacytoma. See also bone marrow, immune system.

muscularis mucosae or muscularis mucosa [MUS-kyu-LAIR-is myoo-KO-say or myoo-KO-sa]
The thin inner muscle layer of the digestive tract that is between the mucosa and the submucosa. See also digestive system, colon.

muscularis propria [MUS-kyu-LAIR-is PRO-pree-uh]
The thick muscle layer that’s part of the wall in most parts of the digestive tract. This is the furthest muscle layer from the center of the tube. See also digestive system, colon.

mutation [mew-TAY-shun]

A change in the DNA (deoxyribonucleic acid) of a cell. Most mutations do not cause cancer, and a few may even be helpful. But all types of cancer are thought to be due to mutations that damage a cell’s DNA. Some cancer-related mutations can be passed on from a parent (inherited). This means that the person is born with the mutated DNA in all the body’s cells. But most mutations happen after a person is born. These are called somatic or acquired mutations. This type of mutation happens in one cell at a time, and only affects cells that arise from the single mutated cell. See also cancer susceptibility genes, deoxyribonucleic acid, gene, inherited mutation, somatic mutation.

myeloablative treatment [MY-uh-lo-uH-uh-BLAY-tiv]

Treatment that destroys the bone marrow. It’s often used before a stem cell transplant. See also bone marrow, hematopoietic stem cell transplant, conditioning treatment.

myelodysplastic syndrome [MY-uh-lo-dis-PLAS-tik]

Often shortened to MDS. A type of cancer in which damaged cells in the bone marrow make defective blood cells. The body destroys the defective cells, which can leave a person with low blood counts. In some cases MDS can progress to leukemia. See also bone marrow, complete blood count, leukemia.

myeloid leukemia [MY-uh-loyd loo-KEY-me-uh]

Also called myelocytic (MY-uh-lo-SIH-tik) leukemia, myelogenous (MY-uh-LAH-jen-us) leukemia, and/or non-lymphocytic (non-LIM-fo-SIH-tik) leukemia. A type of cancer that starts in cells in the bone marrow that are supposed to mature into different types of blood cells. Myeloid leukemia can be chronic (CML) or acute (AML). There are a number of subtypes of acute myeloid leukemia (AML), some with genetic abnormalities that can affect the success of treatment. Compare to lymphoid leukemia. See also bone marrow, leukemia.
nasopharynx [NAY-zoh-FAIR-ingks]
The part of the throat (pharynx) that lies above and behind the soft palate, behind the structures of the nose. Compare with oropharynx, pharynx.
necrosis [nuh-CROW-sis]
The death of one or more cells of the body. Necrotic refers to tissue that has died.
needle aspiration [NEED-ul ASP-er-A-shun]
A procedure in which a thin, hollow needle is used to reach a cyst or tumor, and with suction, draw up (aspirate) bits of tissue or fluid (samples) to be looked at under a microscope. See also biopsy, cyst, needle biopsy, tumor.
needle biopsy [NEED-ul BY-op-see]
A procedure to remove fluid, cells, or tissue with a hollow needle so that it can be looked at under a microscope. The main types of needle biopsy are fine needle aspiration (FNA) and core biopsy. FNA uses a thin needle to draw up (aspirate) fluid or small tissue pieces from a cyst or tumor. A core needle biopsy uses a wider needle to remove a core of tissue from a tumor. See also biopsy, core needle biopsy, cyst, fine needle aspiration biopsy, needle aspiration, tumor.
needle localization [NEED-ul LO-cull-ih-ZAY-shun]
A procedure used to guide the surgeon to the area where the tissue or fluid (sample) needs to be taken from when the lump is hard to find or when there are areas of concern on the x-ray but there’s no distinct lump. X-rays are used to guide a needle to the suspicious area. Then either a small amount of blue dye is injected through the needle, or a thin wire is passed through the needle and left in place, and the needle is removed. The surgeon then uses the dye or the wire as a guide to find the abnormal area to be removed. See also biopsy, wire localization, x-ray.
negative
A result from lab tests or pathology findings in which the abnormality being looked for was not found. For example, when lymph nodes or other tissues are said to be negative for cancer, it means that no cancer was found there. See also lymph nodes.

negative margin

See surgical margin.

neoadjuvant therapy [NEE-o-AD-juh-vunt]

Treatment given before the main treatment. For example, neoadjuvant chemotherapy is sometimes used to shrink a cancer tumor before surgery so that it’s easier to remove. Compare to adjuvant therapy. See also chemotherapy, tumor.

neonatologist [NEE-o-nay-TAHL-uh-jist]

A doctor who specializes in the care of newborns (until they are about 6 weeks old).

neoplasia [NEE-o-PLAY-zee-uh]

Abnormal new cell growth. The growth may or may not be cancer. See also cancer, neoplasm, tumor.

neoplasm [NEE-o-PLAZ-um]

An abnormal growth (tumor) that starts from a single changed (mutated) cell. A neoplasm may or may not be cancer. Such a growth may be described as a neoplastic (NEE-o-PLAS-tik) tumor. See also cancer, mutation, tumor.

nephrologist [neh-FRAHL-uh-jist]

A doctor who specializes in diseases of the kidneys.

nephrostomy [neh-FRAHS-tuh-me]

Surgery to make an opening from the outside of the body to the part of the kidney that collects urine (called the renal pelvis). This may be done to drain urine from a blocked kidney or blocked ureter into a bag outside the body. It may also be done to look at the kidney using a thin, lighted tube attached to a camera (endoscope), to put chemotherapy drugs right into the kidney, or to remove kidney stones. See also chemotherapy, endoscopy, kidney, ureter, urine.
nerve
A structure made of one or more bundles of fibers that connects the brain and spinal cord to other parts of the body. Nerves can take signals of sensation to the brain, and send messages from the brain to make a body part move.

nerve-sparing prostatectomy [PROS-tuh-TECK-tuh-me]
Surgery to remove the prostate in which the surgeon tries to save a man’s ability to have erections by leaving in the neurovascular bundles that control that function. Compare to radical prostatectomy. See also neurovascular bundle, prostate.

nervous system
A complex network of nerve cells (neurons) centered in the brain and spinal cord, which is responsible for sending, receiving, and interpreting information from all parts of the body. See also central nervous system, nerve, peripheral nervous system.

neuroblastoma [NU-ro blas-TOE-mah]
A type of cancer seen in children and infants, made up of immature nerve cells. Most often it starts in the adrenal glands, near the spine, or in the trunk of the body (belly, chest, or pelvis). See also adrenal gland.

neuropathy [nur-AH-puth-ee]
Nerve abnormality or damage which causes numbness, tingling, pain, muscle weakness, and/or swelling. It may be caused by injury, infection, disease, or by drugs. Peripheral (per-IF-er-uhl) neuropathy is a type of neuropathy that starts in nerves farthest away from the brain, such as the hands and feet.

neurosurgeon [NUR-o-SUR-jun]
A doctor specializing in operations to treat nervous system disorders, which includes problems in the brain, spinal cord, and nerves. See also nervous system, spinal cord.

neurovascular bundles [NUR-o-VAS-kyu-lur]
Groups of nerves and blood vessels that run together. In men, bundles of nerves and vessels run along each side of the prostate and help the penis become erect. Removal or injury of these bundles during surgery, or damage
from radiation therapy, can lead to impotence. Women also have these bundles, which run along both sides of the vagina and affect erectile tissue in the genital area. See also impotence, nerve-sparing prostatectomy, prostate, vagina.

neutropenia 唬 [NEW-trow-PEEN-ee-uh]
A decrease in the number of white blood cells that respond quickly to infection (neutrophils), which increases a person’s risk of infection. If a person has less than 1,500 cells/mm3 neutrophils, he or she is neutropenic (NEW-trow-PEEN-ik). With fewer than 500 cells/mm3 the risk of infection is very high and gets higher the longer the neutropenia lasts. See also neutrophil, white blood cells.

neutrophil 唬 [NEW-trow-fill]
A type of white blood cell that helps the body fight infections. See also white blood cells.

nipple
The tip of the breast; the pigmented projection (bump) in the center of the areola. The nipple contains the opening of milk ducts from the breast. See also areola, duct.

nipple discharge 唬
Any fluid of any color coming from the nipple.

nipple retraction 唬
An inward turning of the nipple of the breast.

nocturia 唬 [nok-TOOR-ee-uh]
Waking up often during the night to pass urine. See also urine.

nodal status 唬
Indicates whether cancer has spread to lymph nodes (node-positive) or has not spread to lymph nodes (node-negative). See also lymph node.

node 唬
A small mass of tissue; often used to refer to a lymph node. See also lymph node.
nodule [NOD-yool]
A small, solid lump that can be felt or seen on an imaging test. See also imaging tests, tumor.

non-Hodgkin lymphoma
Formerly called non-Hodgkin’s lymphoma. A large group of cancers that start in immune system cells called lymphocytes. It often affects the lymphatic system (a network of thin vessels and nodes that’s part of the immune system). Compare to Hodgkin disease. See also immune system, lymphatic system, lymphoma.

non-small cell lung cancer
Often shortened to NSCLC. One of the main classes or categories of lung cancer, based on how the cells look under the microscope. Non-small cell lung cancer includes 3 major types: squamous cell (or epidermoid) carcinoma, adenocarcinoma, and large cell (undifferentiated) carcinoma of the lung. Compare to small cell lung cancer. See also carcinoma.

non-steroidal anti-inflammatory drugs [NON-steer-OYD-uhl AN-tie-in-FLAM-uh-tor-ee or AN-tee-in-FLAM-uh-tor-ee]
Often shortened to NSAIDs. Pain relievers and fever reducers in the family of aspirin, ibuprofen (Motrin®, Advil®), naproxen (Aleve®), and many others.

nuclear medicine
A branch of medicine that uses radioactive substances (radioisotopes) to diagnose and treat illnesses. See also radioisotope.

nuclear medicine scan
Also called a radionuclide scan. A type of imaging test in which small amounts of a radioactive substance (called a radioisotope) are put into the bloodstream to look for diseases such as cancer. The radioisotope collects in certain cells or tissues, including cancer cells, and a special camera is used to make a picture of the parts of the body where the radioisotope collects. Bone scans and positron emission tomography (PET) scans are types of nuclear medicine scans. See also bone scan, imaging tests, positron emission tomography, radioisotope.

nucleus [NEW-klee-us]
The center of a cell where the DNA (deoxyribonucleic acid) is found and where it reproduces. Studying the size and shape of a cell’s nucleus under the microscope can help pathologists tell cancer cells from non-cancer cells. See also cell, deoxyribonucleic acid, pathologist.

nulliparous [nuh-LIP-uh-rus]
Never having given birth to a child.
nurse practitioner [nurs prak-TIH-shun-er]
A registered nurse with a master’s or doctoral degree and special certification. Nurse practitioners diagnose and manage illness and disease, usually working closely with doctors.

obesity [uh-KULT or o-KULT]
A state of being very overweight; in general, a body mass index (BMI) greater than 30. BMI is figured out based on height and weight, but is not an absolute measure for overweight or obesity. Because it cannot tell the difference between fat and muscle, other tests must be done to know whether a person with a high BMI is actually obese.

occult [uh-KULT or o-KULT]
Hidden or concealed. In cancer screening, can refer to small amounts of blood in poop (stool) that can’t be seen without special tests. See also fecal occult blood test, colorectal cancer screening.

occupational therapist [OK-you-PAY-shun-uhl]
A specially trained therapist who works with people with impairments or limitations to help them develop, recover, and improve the skills needed for daily living and working. See also cancer care team.

off label
The use of a drug to treat a condition other than that for which it was approved by the Food and Drug Administration (FDA). See also **investigational**.

**omentum** [o-MEN-tum]

A large fatty sheet in the belly (abdomen) that drapes like an apron over the stomach, intestines, and other organs.

**oncogenes** [ON-kuh-jeenz]

Changed (mutated) forms of genes that cause cells to grow, divide to make new cells, or stay alive longer than they should. Oncogenes are related to normal genes called proto-oncogenes that control normal cell growth. But oncogenes have undergone changes that activated them, which can result in cells growing out of control and becoming cancer. Compare to tumor suppressor genes. See also genes, mutation, proto-oncogenes, tumors.

**oncologist** [on-KAHL-uh-jist]

A doctor with special training in the diagnosis and treatment of cancer. See also cancer care team.

**oncology** [on-KAHL-o-jee]

The branch of medicine concerned with the diagnosis and treatment of cancer. See also cancer.

**oncology clinical nurse specialist** [on-KAHL-o-jee]

A registered nurse with a master’s degree who specializes in the care of people with cancer. Oncology nurse specialists may prepare and give treatments, monitor patients, prescribe and provide supportive care, and teach and counsel patients and their families. See also cancer care team.

**oncology social worker** [on-KAHL-o-jee]

A person with a master’s degree in social work who is an expert in coordinating and providing non-medical care to patients. The oncology social worker counsels and assists people with cancer and their families, especially in dealing with the non-medical issues of cancer, such as financial problems, housing (when treatments are given at a facility away from home), and child care. See also cancer care team.
Oncoplastic surgery

Techniques that combine cancer care (oncology) with plastic surgery.

one-step procedure

In breast cancer treatment, surgery done right after the procedure done to diagnose the cancer (the biopsy). The patient is given general anesthesia and does not know until waking up if the diagnosis was cancer or if extensive surgery (for instance mastectomy) was done. Once the only option in breast cancer, the one-step procedure is now rarely used, having been replaced by a two-step approach. See also anesthesia, biopsy, mastectomy, two-step procedure.

oophorectomy [oh-of-uh-REK-tuh-me]

Surgery to remove the ovaries. The fallopian tubes are often removed at the same time (salpingo-oophorectomy). See also fallopian tubes, ovary.

ophthalmologist [OFF-thuhl-MAHL-uh-jist]

A medical doctor who specializes in eye diseases.

oral

Refers to the mouth. For example, medicines that are taken orally are taken by mouth. Oral cancer is cancer of the mouth.

oral and maxillofacial surgeon [MAX-ill-o-FAY-shul]

A surgeon who specializes in operating on the mouth, jaw, and face.

oral contraceptives

Birth control pills, which contain estrogen and/or a progesterone-like substance, known as progestin. See also estrogen, hormone, progesterone.

orchiectomy [OR-key-ECK-tuh-me]

Surgery to remove the testicles; also called castration. See also hormone therapy, testicles.

oropharynx [OR-oh-FAIR-ingks]

The part of the throat (pharynx) below the soft palate and above the epiglottis, mostly behind the mouth. See also epiglottis, pharynx.
Orthopedic surgeon [or-thuh-PEE-dik]
A surgeon who specializes in diseases and injuries of the muscles, joints, and bones.

osteonecrosis of the jaw [OS-tee-o-nuh-CROW-sis]
Often shortened to ONJ. In this condition, part of the jaw bone loses its blood supply and dies. This can lead to tooth loss and infections or open sores of the jaw bone that won’t heal and are hard to treat. Drugs called bisphosphonates can cause this rare side effect. See also bisphosphonates.

osteoporosis [OS-tee-o-puh-RO-sis]
Thinning of bone tissue, causing weaker bones. It’s more common in older people and in people who have had certain types of cancer treatments. Osteoporosis can cause pain, deformity (especially of the spine), and broken bones. See also spine.

osteosarcoma [OS-tee-oh-sar-KO-muh]
Also called osteogenic sarcoma. A type of cancer that starts in the bones and is mainly seen in teens and children, although it’s also seen in young adults.

ostomy [OS-tuh-me]
A general term meaning an opening, especially one made by surgery. See also colostomy, ileostomy, tracheostomy, urostomy.

ostomy nurse
See enterostomal therapist.

otolaryngologist [O-toe-LAIR-in-GOL-uh-jist]
Also called a head and neck surgeon or an ENT (ear, nose, throat doctor); a doctor who specializes in diseases of the ear, nose, and throat.

outpatient
A person being treated without staying in the hospital. Compare to inpatient. See also ambulatory.

ova
The eggs that are released (usually one at a time) from the ovaries about once a month during a woman’s reproductive (fertile) years. The egg must be
fertilized by a sperm to grow into a baby. A female is born with all the ova she will ever have. The singular of ova is **ovum**. See also **ovary, sperm**.

**ovarian ablation**

Removal of the ovaries or the use of radiation or drugs to stop their function. See also **ablation, ovary, hormone therapy**.

**ovary** [O-vuh-ree]

Reproductive organ in the female pelvis. Normally a woman has 2 ovaries. They contain the eggs (ova) that, when joined with sperm, can result in pregnancy. Ovaries are also the main source of estrogen, the main female sex hormone. See also **estrogen, ova, sperm**.

**overflow incontinence**

Urine leak that happens when the bladder can’t be emptied. A person with overflow incontinence may need to get up often during the night to urinate, take a long time to urinate, and/or have a dribbling stream with little force. Overflow incontinence is usually caused by blockage or narrowing of the bladder outlet, such as from cancer or scar tissue. Compare with **stress incontinence, urge incontinence, urine**.

**P**

**p53**

Protein that normally causes damaged cells to die, which is very important to the body’s defenses against cancer. This protein is made by the TP53 tumor suppressor gene. See also gene, protein, TP53, tumor suppressor genes.

**Paget disease of the nipple** [PAA-jet]

A rare form of breast cancer that starts in the milk passages (ducts) and spreads to the skin of the nipple and areola. This affected skin may look
crusted, scaly, and red, with areas of bleeding or oozing. Also known as Paget’s disease. See also areola, duct, nipple.

**pain specialist**

A doctor, nurse, or pharmacist who is an expert in pain control.

**palliate** [PAL-ee-ate]

To relieve symptoms, such as pain, nausea, or fullness. See also palliative treatment.

**palliative treatment or palliative care** [PAL-ee-uh-tiv]

Treatment that relieves symptoms, such as pain or nausea, but is not expected to cure disease. Curative treatment can be used at the same time as palliative treatment, but the main purpose of palliative care is to improve the patient’s quality of life, whether or not the patient is getting other treatment.

**palpation** [pal-PAY-shun]

Using the hands to examine. A palpable mass is one that can be felt.

**pancolitis** [PAN-ko-LITE-us]

Ulcerative colitis throughout the entire colon. See also colitis, colon, ulcerative colitis.

**pancreas** [PAN-kree-us]

An organ that lies behind the stomach and contains 2 different types of gland cells. One type makes enzymes that are released into the intestines to help digest food. The other type makes hormones including insulin and glucagon, which help control blood sugar. See also enzyme, endocrine glands, glandular cells, intestines.

**pancreatectomy** [PAN-cree-uh-TEK-tuh-me]

Surgery to remove all or part of the pancreas. See also pancreas.

**PAP**

See prostatic acid phosphatase. (Not the same as Pap test, the cervical cancer screening test for women. For that, see Pap test.)
Pap test
Also called a Pap smear. A test in which cells are scraped from a woman’s cervix and looked at under a microscope to see if abnormal cells are present. Human papilloma virus (HPV) testing is often done at the same time, and a pelvic examination is usually done as well, but these are not part of the Pap test. See also cervix, human papillomavirus, pelvic examination.

papillary [PAP-uh-LAIR-ee]
Refers to the arrangement of cells in tiny, finger-like projections when looked at under a microscope. This is a common feature of some cancers of the ovaries, uterus, thyroid gland, and other organs. See also histology, ovary, thyroid, uterus.

papilloma [PAP-uh-LO-muh]
A growth that’s not cancer (benign) and extends out from a surface, such as a wart.

parafollicular [PAIR-uh-fah-LICK-yuh-ler]
Near a follicle. In cancer, the term can be used to describe the C cells in the thyroid (parafollicular cells). See also follicle, follicular.

paralysis [puh-RAL-ih-sis]
The loss of movement, feeling, and sometimes other function in part or all of the body.

partial mastectomy
See mastectomy.

Partin tables
In prostate cancer, a tool that uses the prostate-specific antigen (PSA), Gleason score, and stage that are obtained before surgery to predict the odds that the cancer has spread outside the prostate. See also Gleason score, prostate, prostate-specific antigen, staging.

patella [puh-TEL-uh]
The kneecap; the small, flat, movable bone that forms the front of the knee and protects the knee joint.
pathologic stage
See staging.

pathologist [path-AHL-uh-jist]
A doctor who specializes in diagnosing and classifying diseases in the lab by testing and looking at cells under a microscope. The pathologist determines whether a tumor is cancer, and if cancer, the exact cell type and grade. See also cancer, grade.

pectoral muscles
Muscles attached to the front of the chest wall and upper arms. The larger one is called pectoralis major, and the smaller one is called pectoralis minor. Because these muscles are next to the breast, breast cancer may spread to them, but this rarely happens.

pediatric oncologist [pee-dee-AT-trick on-KAHL-uh-jist]
A doctor who specializes in cancers of children. See also cancer care team.

pediatrician [PEE-dee-uh-TRISH-un]
A doctor who specializes in the care of children.

pelvic examination [PELL-vick ex-AM-in-A-shun]
An exam of a woman’s uterus and other pelvic organs. It’s used to look for abnormalities such as cancer in the reproductive organs. The doctor looks at external structures and feels (palpates) the internal organs such as the ovaries and uterus. See also cervix, ovary, pelvis, uterus.

pelvic exenteration [EX-en-ter-A-shun]
An extensive surgery that removes many of the organs in the pelvis. See also pelvis.

pelvic lymph node dissection [PELL-vick limf node diss-ECK-shun]
Removal of lymph nodes in the pelvis. See also lymph node, pelvic nodes, pelvis.

pelvic nodes
Also called pelvic lymph nodes; the lymph nodes to which some cancers, including prostate cancer, are most likely to spread. These nodes are often
removed and checked for cancer as part of surgery to remove prostate and other cancers in the pelvis. See also lymph node, pelvic lymph node dissection, pelvis, prostate.

pelvis 🎧 [PELL-vis]
The part of the skeleton that forms a ring or basin of bones below the belly (abdomen). Pelvis may also refer to the general area of the body between the hip bones, below the abdomen. The pelvis contains the bladder, most reproductive organs, and the rectum. See also bladder, rectum.

penile implant 🎧 [PEE-nile IM-plant]
Artificial device placed in the penis during surgery to help a man have erections. See also erectile dysfunction.

penis 🎧 [PEE-nis]
The male sex organ.

percent-free PSA 🎧
Often shortened to fPSA. Also known as free-PSA ratio. A test that shows how much PSA circulates on its own (unattached to blood proteins) in the blood. The fPSA is the ratio of how much PSA circulates free compared to the total PSA level. The percentage of fPSA is lower in men who have prostate cancer than in men who do not. A low fPSA may suggest the need for a biopsy. See also biopsy, prostate, prostate-specific antigen.

perforation 🎧 [PER-fuh-RAY-shun]
A hole in the wall of a hollow organ, like the bladder or intestine, which normally doesn’t have a hole. See also bladder, intestines.

pericardial effusion 🎧 [pair-uh-CAR-dee-uhl eh-FEW-zhun]
An abnormal collection of fluid inside the sac that covers the heart (pericardium).

perineal prostatectomy 🎧 [PAIR-uh-NEE-ul PROS-tuh-TECK-tuh-me]
An operation in which the prostate is removed through a cut (incision) in the skin between the scrotum and anus. See also anus, perineum, prostate, scrotum.
Perineum [PAIR-uh-NEE-um]
Also called the perineal (PAIR-uh-NEE-uhl) area. The area between the anus and the scrotum or the vagina. See also anus, scrotum, vagina.

Perineural invasion [PAIR-ee-NOO-rul]
Spread of cancer cells into areas around nerves. This is sometimes reported by pathologists looking at the prostate after it has been surgically removed, but it’s not thought to affect a man’s survival outlook (prognosis). See also pathologist, prostate.

Peripheral blood stem cell transplant
See hematopoietic stem cell transplant.

Peripheral nervous system
All the nerves outside the brain and spinal cord. These nerves are a network for gathering and sending information to and from the central nervous system. See also central nervous system, nerve, nervous system, spinal cord.

Peripheral zone [per-IF-er-uhl zon]
The outer part; near the outer edges. In the prostate, for instance, it’s this area where most prostate cancers occur. See also prostate.

Peritoneum [PAIR-ih-tuh-NEE-um]
A thin membrane that lines the belly (abdomen) and covers most of its organs. The peritoneal cavity is the area enclosed by the peritoneum.

Permanent brachytherapy [BRAKE-ee-ATHER-uh-pee]
A form of low-dose rate brachytherapy in which pellets or seeds of radioactive material are put in thin needles, and placed in the area with cancer. The needles are removed and the pellets or seeds are left in place. They stop giving off low-dose radiation after a certain time (may be weeks or months). See also brachytherapy, low dose rate brachytherapy, radioactive implant.

Permanent section
A thin slice of biopsy tissue that’s been prepared to be looked at under a microscope. The tissue is soaked in formaldehyde, processed in various chemicals, enclosed in a block of wax, sliced very thin, attached to microscope
slides, and stained. This process usually takes 1 to 2 days. It allows a clear view of the cells in the sample so that the pathologist can see whether cancer is present. Compare with frozen section. See also biopsy, pathologist.

**PET scan**

See positron emission tomography.

**pharynx** [FAIR-ingks]

The throat; the tube that connects the mouth and nasal passages with the swallowing tube (esophagus) and windpipe (trachea). It extends from above the soft palate, behind the mouth, down to the epiglottis. See also epiglottis.

**pheresis** [fuh-REE-sis]

See apheresis.

**phosphodiesterase inhibitors** [FOS-foe-die-ES-ter-ACE in-HIB-it-urs]

Also called PDE5 inhibitors. Drugs, such as sildenafil (Viagra®), vardenafil (Levitra®), and tadalafil (Cialis®), that can help men get an erection. See also impotence.

**photocoagulation or photoablation** [FOE-toe-ko-ag-yu-LAY-shun or FOE-toe-uh-blay-shun]

Use of a laser beam to heat up and kill cancer cells. Most often used to relieve blockages caused by tumors rather than to cure cancers. See also ablation.

**photodynamic therapy** [FOE-toe-die-NAM-ick]

Also called PDT. A treatment sometimes used for cancers of the skin, swallowing tube (esophagus), or lung. A chemical is applied to the skin or injected into a vein and allowed to collect in the tumor for hours or days. A special type of laser light is then focused on the cancer. This light changes the chemical so that it can kill cancer cells with very little harm to normal cells.

**photon beam radiation therapy** [FOE-ton]

Standard type of radiation used for external beam radiation treatments. See also external beam radiation therapy.
Phyllodes tumor

Also spelled phylloides (full-OY-deez). A rare breast tumor that’s usually not cancer. It grows quickly and can become quite large. These tumors are usually removed along with a margin of normal tissue. Formerly called cystosarcoma phyllodes. See also surgical margin.

physical therapist

A health professional who uses exercises and other methods to restore or maintain the body’s strength, mobility, and function.

physiologic

Pertaining to the processes of the body or its systems. May also be used to describe a particular body function or organ as normal.

phytochemical

Substance made by plants that may produce health benefits when eaten or ingested; for example, antioxidants. See also antioxidants.

PIN

See prostatic intraepithelial neoplasia.

pituitary

Small gland below the brain which releases hormones that help control many of the other endocrine glands in the body. Also called the “master gland.” See also endocrine glands.

placebo

An inert, inactive substance or sham/fake procedure that may be used in studies (clinical trials) to compare the effects of a given treatment with no treatment. The pill form is commonly called a “sugar pill.” Placebo can mean a treatment, injection, or even something that looks like real surgery that’s used when studying a treatment that’s not given by mouth. Placebos are not used in studies where a proven treatment is available; instead, the new treatment is tested against the proven one. See also clinical trials.

plastic or reconstructive surgeon

A surgeon specializing in changing the way a body part looks or in rebuilding or replacing removed or injured body parts.
platelets [PLATE-lets]
Parts of blood cells that help stop bleeding by plugging up holes in blood vessels after an injury.

pleura [PLUR-uh]
The membranes around the lungs and lining the chest cavity.

pleural effusion [PLUR-uhl eh-FEW-zhun]
An abnormal build-up of fluid between the thin layers of tissue that line the lungs and the chest cavity. See also pleura, pleurodesis.

pleurodesis [plu-RAH-dis-sis or PLUR-o-DEE-sis]
Injection of a chemical between the layers of the chest lining (pleura) that causes them to fuse to seal off leaks. This procedure helps prevent fluid or air from building up in the pleural (PLUR-ahl) cavity, the area in the chest outside the lungs. See also pleura, pleural effusion.

ploidy [PLOY-dee]
Number of sets of chromosomes in a cell. Ploidy can sometimes help predict how quickly a cancer is likely to spread. See also aneuploid, chromosome, deoxyribonucleic acid, diploid.

pneumonectomy [NEW-muh-NECK-tuh-me]
Surgery to remove a lung. Compare to lobectomy.

pneumonia [new-MOAN-yuh]
Severe inflammation of part or all of the lungs in which the tiny air sacs are filled with fluid. It’s often caused by infection, but can also be caused by allergies, inhaling irritants, or radiation therapy. See also radiation therapy.

polycythemia vera [PAH-lee-sy- THEME-e-uh VAIR-uh]
Often shortened to PV or PCV. A blood disease in which the bone marrow makes too many red blood cells, although it can also make too many white blood cells and platelets. Blood clots can become a problem because of high platelet counts and “thickened” blood. Often, the spleen is enlarged. For some people, the bone marrow is displaced by fibrous tissue (myelofibrosis). See also bone marrow, platelet, red blood cells, spleen, white blood cells.
**Polyp** [PAH-lip]

A growth from a mucous membrane on the inner lining of an organ such as the colon, rectum, uterus, or nose. Polyps may be non-cancerous (benign) or cancerous (malignant). See also adenomatous polyp, colon, hyperplastic polyp, inflammatory polyp, mucous membrane, rectum, uterus.

**polypectomy** [PAH-lup-ECK-tuh-me]

Surgery or procedure to remove a polyp. See also polyp.

**portography** [por-TAHG-ruh-fee]

An imaging test of the liver that uses computed tomography (CT) and a dye injected into the portal vein of the liver. It takes cross-sectional x-rays of the veins in the liver to look for cancer that may have spread there from the colon or rectum. See also colon, computed tomography, imaging tests, liver, rectum, x-ray.

**positive margin**

See surgical margin.

**positron emission tomography** [PAHS-uh-trahn ee-MISH-uhn tom-AHG-ruh-fee]

Often shortened to PET scan. An imaging test in which a small amount of a radioactive substance (often glucose [sugar]) is injected into a vein, and a scanner is used to make computerized pictures of areas inside the body where the glucose is taken up. Because cancer cells often take up more glucose than normal cells, the pictures can be used to find cancer cells in the body. PET scans can help find tumors or see how well a known tumor is responding to treatment. The pictures are not very detailed, but they show the whole body at once. See also imaging tests, nuclear medicine scan, radioisotope.

**posterior** [post-EER-ee-uhr]

The back or near the back of an organ or the body.

**poultice** [POLE-tiss]

Soft paste or thick liquid that’s usually heated, applied to a cloth, and placed over an inflamed or painful area. Herbs, leaves, or foods are commonly used for this in folk medicine and home remedies.
**pre-cancerous**

Also called pre-malignant. Refers to a condition that might, but does not always, become cancer.

**predisposition** [PRE-dis-puh-ZISH-un]

Tendency for or susceptibility to a disease. For example, some women with close family members who had breast cancer have a predisposition for it themselves. This means they are more likely (but not necessarily destined) to develop breast cancer. Women who inherit a variant of one of the breast cancer genes such as BRCA1 or BRCA2 are also more likely to (but still might not) develop breast cancer. See also BRCA1, BRCA2, hereditary cancer syndrome.

**pre-malignant**

See pre-cancerous.

**prevalence** [PREH-vul-uns]

A measure of the proportion of people in a population with a particular disease at a given time. Compare to incidence.

**prevention**

In cancer, the reduction of cancer risk by eliminating or reducing contact with things known to cause cancer. This may be done by changing conditions that contribute to cancer (such as obesity or lack of exercise) or by using medicines that interfere with cancer development. Sometimes lifestyle changes are a key part of prevention. For instance, quitting tobacco greatly reduces a person’s chance of getting lung and other cancers.

**primary care physician**

The doctor a person would normally see first when a medical problem comes up. A primary care doctor could be a general practitioner, a family practice doctor, a gynecologist, a pediatrician, or an internal medicine doctor (an internist). See also cancer care team.

**primary care provider**

Usually a general practitioner (such as a family practitioner or internist) or other health care professional with a broad range of training who often sees the patient first before referring to medical specialists. Some health insurance
plans require the patient to see their primary care provider before seeing other specialists. See also primary care physician.

**primary caregiver**

The main person who cares for the patient. In the home, this is usually an unpaid family member, partner, or close friend.

**primary site**

The place where cancer starts. Cancer is usually named (and treated) based on the organ in which it first starts. For example, cancer that starts in the breast is always breast cancer, even if it spreads (metastasizes) to other organs such as bones or lungs. See also metastasize, metastasis.

**primary treatment**

Also called primary therapy. The first, and usually the most important, treatment.

**progesterone** [pro-JES-ter-own]

A sex hormone released from the ovaries during every menstrual cycle to prepare the womb (uterus) for pregnancy and the breasts for milk production (lactation). See also hormone, ovary.

**progesterone receptor assay**

A lab test done on a sample (biopsy) of breast cancer cells that shows whether the cancer depends on progesterone for growth. Progesterone and estrogen receptor tests provide information to help decide whether the patient would be helped by medicines that block these hormones. See also biopsy, estrogen, estrogen receptor assay, progesterone.

**prognosis** [prog-NO-sis]

A prediction of the course of disease; the estimated outlook for survival.

**progression**

The spread or growth of a disease, with or without treatment.

**prolactin**

A hormone released from the pituitary gland that prompts the breasts to produce milk. See also hormone, pituitary.
proliferative [pro-LIH-fer-uh-tiv]
Refers to the rapid or excessive growth or multiplication of cells.

prophylactic mastectomy [PRO-fuh-LACK-tik]
See mastectomy.

prostaglandin E1 [PROS-tuh-GLAN-din]
A substance found naturally in the body that causes blood vessels to enlarge (dilate). A man-made version can be used to produce erections if it’s injected into the base of the penis or put into the urethra as a suppository or pellet. See also urethra.

ProstaScintTM scan [PROS-tuh-sent]
An imaging test that uses low-level radioactive material to find prostate cancer that has spread beyond the prostate. Radioactive isotopes attached to antibodies made in a lab that stick to prostate cells are injected into the vein, and after several days the scan is done. The scan can sometimes help distinguish prostate cancer from other cancers and non-cancer disorders. It’s more often used to look for cancer in the body if the prostate-specific antigen (PSA) level is still high after treatment. See also antibody, prostate, prostate-specific antigen, radioisotope.

prostate [PROS-tate; note that there is no “r” in the second syllable]
A gland found only in men. It’s just below the bladder and in front of the rectum. The prostate makes a fluid that’s part of semen. The tube that carries urine (the urethra) runs through the prostate. See also bladder, prostatic urethra, rectum, semen, urine.

prostate cancer [PROS-tate; note that there is no “r” in the second syllable]
Cancer that forms in tissues of the prostate (a gland in the male reproductive system found below the bladder and in front of the rectum). Almost all prostate cancers develop from the gland cells that make the prostate fluid that’s part of semen. Prostate cancer usually occurs in older men. See also glandular cells, prostate, semen.

prostatectomy [PROS-tuh-TECK-tuh-me]
Surgical removal of all or part of the prostate gland. See also prostate.
**Prostate-specific antigen**

Often shortened to PSA. A protein made by the prostate gland. Levels of PSA in the blood often go up in men with prostate cancer as well as other conditions. The PSA test is sometimes used to help screen for prostate cancer, and PSA levels are part of what determine the stage of a prostate cancer. The test can also be used to check the results of treatment, to look for cancer that has come back, and to help monitor advanced prostate cancer. See also prostate.

**Prostatic acid phosphatase** [pros-TAT-ick A-sid FOS-fuh-tace]

Often shortened to PAP. A substance made by the prostate gland which can be found on a blood test. The PAP test is not useful for prostate cancer screening because it can be elevated due to many factors, but the test is sometimes used in men who are known to have prostate cancer. (This not the same as the Pap screening test for cervical cancer; for that, see Pap test.) See also prostate, prostate-specific antigen, screening.

**Prostatic intraepithelial neoplasia** [pros-TAT-ick IN-trah-EP-ith-EE-lee-uhl hi-per-PLAY-zhuh]

Often shortened to PIN. A condition in which there are changes in how the prostate gland cells look under the microscope. The changes are classified as low-grade, meaning that the cells look almost normal, or high-grade, meaning that they look more abnormal. The condition is not cancer, but high-grade PIN might lead to the development of cancer in some men. See also grade, prostate.

**Prostatic urethra** [pros-TAT-ick yoo-REE-thruh]

The part of the urethra that runs through the prostate. See also prostate, urethra.

**Prostatitis** [pros-tuh-TIE-tus]

Inflammation of the prostate. Prostatitis is not cancer, but it can cause the prostate to swell and cause trouble passing urine. See also prostate, urine.

**Prosthesis** [pros-THEE-sis]

An artificial replacement part of the body, such as a breast prosthesis. A prosthesis might be implanted inside the body during surgery or worn outside the body.
**protein** [PRO-teen]
A large molecule made up of a chain of smaller units called amino acids. Proteins serve many vital functions inside and outside of the body’s cells.

**protocol** [PRO-tuh-call]
A formal outline or plan, such as a description of what treatments a patient will get and exactly when each should be given. See also regimen.

**proton** [PRO-tahn]
A radioactive particle used in some forms of radiation therapy. See also conformal proton beam radiation therapy, radiation therapy.

**proton beam therapy**
See conformal proton beam therapy.

**proto-oncogenes**
A group of genes that, once they are changed (mutated), can cause cells to become cancer. The mutated version of a proto-oncogene is called an oncogene. See also gene, mutation, oncogenes.

**PSA**
See prostate-specific antigen.

**PSA density**
Often shortened to PSAD. The ratio of the blood PSA level to the size of the prostate gland. PSA levels are higher in men with larger prostate glands, and PSAD is used to help correct for this. The doctor measures the size of the prostate using transrectal ultrasound, and divides the PSA number by the prostate volume. A higher PSAD indicates a greater likelihood of cancer. See also prostate, prostate-specific antigen, transrectal ultrasound.

**PSA doubling time**
Often shortened to PSADT. The length of time it takes for the PSA level in the blood to double. This is sometimes useful in determining if prostate cancer has come back (recurred) or is growing. See also prostate, prostate-specific antigen.
**PSA velocity**

Often shortened to PSAV. A measurement of how quickly the PSA level rises over a period of time. See also prostate, prostate-specific antigen.

**psychiatrist** [sy-KY-uh-trist]

A medical doctor specializing in mental health and behavioral disorders. Psychiatrists can prescribe medicines and offer other types of mental health therapy.

**psychologist** [sy-KOLL-uh-jist]

A health professional who assesses a person’s mental and emotional status and provides counseling.

**psychosocial** [SY-ko-SO-shul]

Related to the psychological and/or social aspects of health, disease, treatment, and/or rehabilitation.

**PTEN**

A gene that normally helps control cell growth. Inherited changes (mutations) in this gene cause Cowden syndrome, a rare disorder in which people are at higher risk for both non-cancer and cancer breast tumors, as well as tumors in other parts of the body. See also gene, inherited disease, mutation.

**pubic bone** [PEW-bick]

Also called pubis or pubic arch. Arch of bone at the center base of the pelvis, where the 2 sides join in the front. See also pelvis.

**pulmonary** [PULL-muh-nair-ee]

Having to do with the lungs.

**pulmonologist** [PULL-muh-NAHL-uh-jist]

A doctor who specializes in the diagnosis and treatment of lung conditions and diseases.
Quality of life

Overall enjoyment of life, which includes a person’s sense of well-being and ability to do the things that are important to him or her.

radiation

Ranges from light and heat to radio waves, microwaves, and x-rays. In reference to cancer, the 2 main types are ionizing and non-ionizing radiation. The high-energy rays used for x-rays and some other imaging tests, as well as in higher doses for cancer treatment, are called ionizing radiation. This type of radiation can be produced by medical devices, but also comes from natural sources such as radon gas (in the ground) and outer space. See also imaging tests, radiation dose, radiation therapy, x-ray.

radiation dose

The amount of radiation an object (such as human tissue) receives. Several units are used to describe radiation doses, as listed below.

rad (short for radiation absorbed dose) – a basic unit of the amount of radiation transferred to an object. This measurement does not take into account the type of radiation, which can influence the effect on different body tissues. The rad has largely been replaced by the gray measurement scale (see next).

gray (abbreviated Gy) – the newer, international unit of measurement of radiation transfer. One gray equals 100 rads, and a centigray is 1/100th of a gray. So, one rad equals one centigray (cGy). 1/1000 of a gray is called a milligray (mGy).
rem (short for roentgen equivalent man) – a basic unit of radiation exposure which is based on both the dose and the type of radiation. Because of this, it’s more commonly used to describe radiation exposure in humans than is the rad. Often reported in units of millirem (mrem), which is 1/1000 of a rem. The rem is sometimes replaced by the sievert (see next).

sievert (see-vert) – abbreviated Sv. A newer, international unit of measurement of human radiation exposure. One sievert equals 100 rem. Often reported in millisieverts (mSv), which are thousandths of a sievert (or 1/10 of a rem).

**radiation oncologist** [RAY-dee-A-shun on-KAHL-uh-jist]
A doctor who specializes in using radiation to treat cancer. See also cancer care team.

**radiation pneumonitis** [RAY-dee-A-shun NEW-muh-NI-tis]
A side effect of radiation therapy to the chest area. There is inflammation of the lungs that may not cause problems, but can cause cough, shortness of breath, and fever. It may occur from a few weeks to up to 6 months after external radiation therapy. See also radiation therapy.

**radiation proctitis** [RAY-dee-A-shun prok-TIE-tis]
A possible side effect of radiation therapy to the pelvic area. There is inflammation of the rectum and anus and problems can include pain, frequent bowel movements, bowel urgency, bleeding, chronic burning, or rectal leakage. See also anus, pelvis, radiation therapy, rectum.

**radiation therapist** [RAY-dee-A-shun THER-uh-pist]
A person with special training to use the equipment that delivers radiation therapy.

**radiation therapy** [RAY-dee-A-shun THER-uh-pee]
Treatment with high-energy rays or particles to kill cancer cells and shrink tumors. The radiation may come from outside the body (external radiation) or from radioactive materials placed in the body (brachytherapy or internal radiation). See also brachytherapy, external beam radiation therapy, intensity modulated radiation therapy, radiation dose, three-dimensional conformal radiation therapy, x-ray.
radical perineal prostatectomy [RAD-ick-uhl PAIR-uh-NEE-ul PROS-tuh-TECK-tuh-me]

Surgery to remove the prostate through a cut (incision) in the perineum (the skin behind the testicles). This approach is used less often than others, in part because it makes it harder for the surgeon to spare the nerves that control erections. See also neurovascular bundles, nerve-sparing prostatectomy, perineum, prostate, radical prostatectomy, retropubic prostatectomy, testicles.

radical prostatectomy [RAD-ick-uhl PROS-tuh-TECK-tuh-me]

Surgery to remove the entire prostate gland, the seminal vesicles, and nearby tissue. See also prostate, seminal vesicles.

radioactive implant [RAY-dee-o-ACT-iv IM-plant]

A source of ionizing radiation that’s placed in or around a tumor to kill the cancer cells. See also brachytherapy, radiation therapy.

radiocontrast dye [RAY-dee-o-CON-trast]

Also called dye, contrast dye, radiocontrast medium. Any material used in imaging tests such as x-rays, MRIs, and CT scans to help outline the body parts being examined. These may be injected, put into the rectum, or ingested (drunk). See also imaging tests.

radiofrequency ablation [RAY-dee-oh-FREE-kwin-see uh-BLAY-shun]

Often shortened to RFA. Treatment that uses high-energy radio waves to heat and destroy abnormal tissues. In cancer treatment, a thin, needle-like probe is guided into the tumor using ultrasound or a computed tomography (CT) scan. A high-frequency current is then passed through the probe, which heats and kills nearby cells. See also computed tomography scan, ultrasound.

radioisotope [RAY-dee-oh-EYE-suh-TOPE]

Also called a radionuclide (RAY-dee-oh-NOO-klide). A type of atom that’s unstable and prone to break up (decay). Decay releases small fragments of atoms and radiation energy. Exposure to certain radioisotopes can cause cancer. But radioisotopes are also used to find and treat cancer. In certain imaging tests, for example, radioisotopes are injected into the body where they then collect in areas where the disease is active, showing up as brighter
areas on the pictures. See also imaging tests, nuclear medicine scan, radiation.

**radiologic technologist** [RAY-dee-uh-LAH-jick teck-NAH-luh-jist]

A health professional who positions patients for x-rays and other imaging tests, takes the images, and then checks the images for quality. The pictures taken by the technologist are typically sent to a radiologist to be read. See also radiologist, x-ray.

**radiologist** [RAY-dee-AH-luh-jist]

A doctor with special training in diagnosis of diseases by interpreting or reading x-rays and other types of imaging tests. See also imaging tests, x-ray.

**radionuclide bone scan** [RAY-dee-oh-NOO-klide]

See bone scan.

**radiopharmaceuticals** [RAY-dee-oh-FARM-uh-SUIT-ih-kulz]

A group of drugs that include radioactive elements or radioisotopes, such as strontium-89 or samarium-153, which are given into a vein (intravenously or IV) to help treat certain types of cancer (often cancers that have spread to the bones). See also radioisotope, strontium-89.

**radiosensitivity** [RAY-dee-oh-SENS-ih-TIV-it-tee]

How susceptible a cell is to radiation, or how easy it is for radiation to kill the cell. Cells that divide frequently are especially radiosensitive and are more affected by radiation. See also cell, radiation therapy.

**radiosensitizer** [RAY-dee-oh-SENS-it-tie-zer]

Also called a radiosensitizing agent. A substance that makes cancer cells easier to kill with radiation therapy. See also cell, radiation therapy, radiosensitivity.

**radiotherapy**

See radiation therapy.

**radius** [RAY-dee-us]

In the human body, the bone in the forearm (connecting the elbow and the wrist) that’s nearest to the thumb. Compare to ulna.
randomized or randomization

A process in clinical trials that uses chance to assign participants to different groups that compare treatments. Randomization means that a person is assigned randomly to the treatment or control groups rather than based on a factor that might change the results. This helps reduce bias in the results that might happen, if, for example, the healthiest people all were assigned to a particular treatment group. See also clinical trials, control group.

rectal surgery

Surgery to remove cancer in the rectum, which is often the main treatment for this cancer. Radiation and chemotherapy may be given before or after surgery. See also adjuvant therapy, chemotherapy, neoadjuvant therapy, radiation, rectum.

rectum

The last part of the large intestine, between the sigmoid colon and the anus. See also anus, colon, intestines, sigmoid colon.

recurrence

The return of cancer after treatment. Local recurrence means that the cancer has come back at the same place as the original cancer (primary site). Regional recurrence means that the cancer has come back in nearby tissues or lymph nodes near the primary site. Distant recurrence is when cancer comes back in distant organs or tissues. See also lymph node, metastasis, metastasize, primary site.

red blood cells [RBCs]

Blood cells that contain hemoglobin, the substance that carries oxygen to all of the cells of the body. These cells are made in the bone marrow. A low red blood cell count, called anemia, can have many causes, including cancer and some cancer treatments. See also anemia, blood count, bone marrow.

reduced-intensity conditioning

Doses of radiation or chemotherapy given before an allogeneic stem cell transplant, in which lower doses are used to leave some of the patient’s bone marrow cells while the new marrow takes hold. See also bone marrow, chemotherapy, conditioning treatment, hematopoietic stem cell transplant, mini-transplant, radiation.
reduction mammoplasty
See mammoplasty.

re-excision
A second surgery to remove remaining cancer. This may be done if cancer cells were found at the edge of surgically removed tissue. See also excision, surgical margin.

refractory [ree-FRACK-tuh-re]
No longer responsive to a certain treatment. See also drug resistance.

regimen [REH-juh-men]
A regulated plan (such as diet, exercise, or a medicine schedule) designed to reach certain goals. In cancer treatment, a treatment plan which might include different medicines given on a certain schedule, as well as other treatments such as radiation. See also protocol.

regional involvement
Also called regional spread. The spread of cancer from where it started (primary site) to nearby areas such as lymph nodes, but not to distant sites. See also lymph node, metastasis, primary site.

regression [ree-GRESH-un]
Decrease in the size of the tumor or the extent of the cancer.

rehabilitation [REE-huh-BILL-ih-TAY-shun]
Activities to help a person adjust, heal, and return to a full, productive life after injury or illness. This could include physical restoration (such as the use of prostheses, exercises, and physical therapy), counseling, and emotional support. See also prosthesis, physical therapist, occupational therapist.

relapse [REE-laps]
Reappearance of cancer or other disease after a disease-free period. See also recurrence.

rem
See radiation dose.
**Remission** [re-MISH-un]

Complete or partial disappearance of the signs and symptoms of cancer in response to treatment; the period during which a disease is under control. A remission may not be a cure.

**renal** [REE-nul]

Having to do with the kidneys.

**replicate** [REP-lih-KATE]

To reproduce exact copies.

**rescue treatment**

In cancer care, procedures or treatments such as a stem cell transplant that “rescue” a patient’s immune system and blood-forming organs by correcting the damage caused by high-dose chemotherapy. See also chemotherapy, hematopoietic stem cell transplant, immune system.

**resection** [re-SEK-shun]

Surgery to remove part or all of an organ or other structure.

**resectoscope** [re-SEK-tuh-SCOPE]

A long, thin instrument with a light and lens on the end that can be passed into the urethra. It’s used for transurethral resection of the prostate (TURP) and to remove some lesions in the bladder, uterus, or urethra. It allows the surgeon to look at the inside of the urethra, the bladder, the uterus, and some of the prostate; a wire loop on the end can be used to remove abnormal tissue. See also bladder, lesion, prostate, transurethral resection of the prostate, urethra, uterus.

**respiratory therapist** [RES-per-uh-TOR-ee THAIR-uh-pist]

A health professional who, under the direction of a doctor, gives breathing treatments and helps manage patients on breathing machines (ventilators or respirators).

**respite care** [RES-pit]

The short-term care of a sick person to provide a break (respite) to the regular caregiver(s). Respite care may be given in a nursing home, hospital, or even in the home by substitute care providers.
Response

Outcome after treatment, or the reaction to a drug or any other therapy.

Retention

See urinary retention.

Retinoblastoma [RET-in-oh-blast-OH-muh]

A type of cancer that starts in the nerve cells lining the back of the eyeball (retina). It’s most often seen in infants and young children, and can sometimes be passed on in families (inherited).

Retinoids [RET-in-oyds]

Vitamin A and man-made (synthetic) compounds similar to vitamin A.

Retrograde Ejaculation [RET-tro-grade e-JACK-you-LAY-shun]

A condition in men, often happening after some types of pelvic surgery or radiation, in which semen enters the bladder during orgasm, rather than leaving the body through the penis. See also bladder, prostate, radiation, semen.

Retropubic [RET-tro-PEW-bick]

Behind the pubic bone but in front of the bladder. In prostate cancer, a surgical approach to remove the prostate through a cut (incision) in the lower belly (abdomen) is called a retropubic prostatectomy. See also bladder, prostate, prostatectomy, pubic bone.

Reverse Transcription Polymerase Chain Reaction [re-VERSE tran-SCRIP-shun puh-LIM-er-ace]

Often shortened to RT-PCR. A very sensitive test used to find specific cancer-related genetic changes (mutations) in blood, bone marrow, lymph nodes, or other tissue. RT-PCR uses chemical analysis of the ribonucleic acid or RNA (a substance related to DNA [deoxyribonucleic acid]) to look for gene changes. See also bone marrow, deoxyribonucleic acid, lymph node, mutation, ribonucleic acid.
**Rhabdomyosarcoma** [RAB-doe-MY-oh-sar-KO-muh]

Rare type of cancer seen mainly in children and teens that forms in immature skeletal muscle cells. It’s often found in the head and neck, the trunk, or the arms and legs.

**rib**

One of a series of 12 pairs of curved bones, some of which connect to the sternum and spine to form the rib cage. The ribs enclose the chest and help protect the heart, lungs, and other organs.

**ribonucleic acid** [RI-boo-KLEE-ick a-sid]

Often shortened to RNA. A molecule found in all cells that stores and carries genetic messages within the cell. See also deoxyribonucleic acid, messenger RNA.

**risk factor**

Anything that’s related to a person’s chance of getting a disease such as cancer. Some risk factors have a direct role in causing cancer, but in other cases the risk may be due to something else that goes along with the risk factor. For example, COPD (chronic obstructive pulmonary disease) is linked to higher risk of lung cancer, but this is because both can be caused by smoking. Different cancers have different risk factors. For example, excess exposure to sunlight is a risk factor for skin cancer; oral tobacco use is a risk factor for mouth, throat, and other cancers. Some risk factors, such as sun exposure, can be controlled. Others, like a person’s age, can’t be changed. See also gene, mutation.

**RNA**

See ribonucleic acid.

**RT-PCR test**

See reverse transcription polymerase chain reaction.
Saline [SAY-lean]
Saltwater solution.

Salivary glands [SAL-ih-vair-ee]
Glands that produce spit (saliva) in the mouth to keep it soft and moist and help start the digestion of food.

Sarcoma [sar-KO-muh]
A cancer that starts in connective tissue, such as cartilage, fat, muscle, or bone.

Scan
A test that uses x-rays, magnets, sound waves, or radioisotopes to make pictures of the inside of the body. See also imaging tests, bone scan, brain scan, computed tomography scan, magnetic resonance imaging, nuclear medicine scan, radioisotope, x-ray.

Scintillation camera [SIN-till-LAY-shun]
Device used in nuclear medicine scans to detect radioactivity and make pictures that help diagnose cancer and other diseases. See also nuclear medicine, nuclear medicine scan.

Scintimammography [SIN-ti-mam-AHG-gruh-fee]
Also called breast specific gamma imaging (BSGI) or molecular breast imaging (MBI). An imaging test in which a radioactive tracer is put into the blood through a vein to help find breast cancer. The tracer collects in the breasts, and different patterns can show “hot spots” or areas of greater activity. This test may help evaluate women with abnormal mammograms, and is still being studied as doctors try to improve its usefulness. See also imaging tests, mammogram, nuclear medicine scan, radioisotope.

Screening
The search for disease, such as cancer, in people who do not have any signs or symptoms. For example, screening tests for colon cancer include colonoscopy
and the fecal occult blood test. Some of the same tests used for screening may also be used as diagnostic tests, which look for cancer in a person after there’s some sign of a problem. For instance, a colonoscopy would be a diagnostic test if it was used in a person who had blood in the poop (stool) or symptoms of a blockage. See also colon, colonoscopy, fecal occult blood test, sign, symptom.

scrotum
The pouch of skin that holds the testicles. See also testicles.

secondary tumor
A tumor that forms as a result of spread (metastasis) of cancer from the place where it started (the primary site). See also metastasis, primary site.

sedation [suh-DAY-shun]
The state of being sleepy, calm, or relaxed, or the use of drugs to cause such an effect. Sedation is often used along with medicines to numb an area for a procedure or certain types of surgery. See also anesthesia.

segmental resection [seg-MEN-tuhl re-SEK-shun]
Surgery to remove part of an organ. With colon cancer, for instance, the cancer and a length of normal colon on either side of the cancer, as well as the nearby lymph nodes are removed. The remaining sections of the colon are then attached to each other. See also colon, lymph node.

selective estrogen receptor modulator
Often shortened to SERM. An estrogen-like drug that has some, but not all, of the actions of estrogen. For example, the drug raloxifene is classified as a SERM because it acts like estrogen in some parts of the body (for example, helping prevent bone loss) but blocks the effects of estrogen in others (for instance, it helps stop breast cells from using estrogen). See also estrogen, uterus.

semen [SEE-muhn]
Fluid released during male orgasm that contains sperm and seminal fluid. See also ejaculate, sperm.
Seminal vesicles [SIM-uh-nul VES-ih-kuls]
Glands in men at the base of the bladder and next to the prostate that release fluid and sperm into the semen during orgasm. See also bladder, prostate, semen.

sentinel lymph node biopsy [SEN-tin-uhl]
Often shortened to SLNB. A procedure that’s used instead of routine removal (dissection) of lymph nodes for some cancer types to look for cancer spread to nearby lymph nodes. Blue dye and/or a radioisotope is injected into or near the tumor during surgery, and the first (sentinel) node that picks up the dye is removed and checked for cancer cells. If the node does not contain cancer, other nodes probably do not need to be removed. See also biopsy, lymph node, lymph node dissection, radioisotope.

seroma
A lump or swelling that’s caused by a build-up of clear fluid and is not cancer.

sex therapist
A mental health professional such as a licensed psychiatrist, social worker, clinical nurse specialist, nurse practitioner, or psychologist with special training in counseling people about sexual changes, problems, and communication.

side effects
Unwanted effects of treatment such as hair loss caused by chemotherapy or extreme tiredness (fatigue) caused by radiation therapy. See also chemotherapy, radiation therapy.

sievert
Often written as Sv. See radiation dose.

sigmoid colon [SIG-moyd KO-lun]
The fourth and last section of the colon. The sigmoid colon attaches to the rectum, where waste matter is stored until it leaves the body through the anus. See also anus, ascending colon, colon, descending colon, transverse colon, rectum.
**Sigmoidoscope** [sig-MOYD-uh-SCOPE]

Also called a flexible sigmoidoscope. A thin, flexible, hollow, lighted tube about the thickness of a finger with a small video camera on the end. It’s put in through the rectum and advanced into the lower part of the colon. The sigmoidoscope is connected to a monitor so the doctor can look at the inside of the rectum and the lower part of the colon for cancer or for small growths that can become cancer (polyps). See also colon, polyp, rectum, sigmoid colon, sigmoidoscopy.

**Sigmoidoscopy** [SIG-moid-AH-skuh-pee]

A procedure in which a doctor uses a thin, flexible tube to look into the rectum and the last part of the colon to check for polyps or other abnormalities. See also colon, polyp, rectum, sigmoid colon, sigmoidoscopy.

**sign**

A physical change that can be seen, felt, or measured in some way. Compare to symptom.

**simulation**

A process involving special imaging tests that are used to plan external beam radiation cancer treatment so that the area to be treated is precisely located and marked. See also external beam radiation therapy.

**SKY**

See spectral karyotyping.

**small cell lung cancer**

One of the 2 main types of lung cancer grouped based on how the cells look under the microscope. Small cell lung cancer tends to grow and spread faster than the other type, non-small cell lung cancer. Compare to non-small-cell lung cancer.

**small intestine**

The longest section of the intestinal tube. It breaks down food and absorbs most of the nutrients. The small intestine starts at the end of the stomach and leads into the large intestine. See also gastrointestinal tract, large intestine, stomach.
social worker A health professional who helps people find community resources and support services, and provides counseling and guidance to help with issues like insurance coverage and nursing home placement. See also cancer care team.

solar keratosis See actinic keratosis.

somatic mutation [so-MAT-ick mew-TAY-shun] A change (mutation) in DNA (deoxyribonucleic acid) that starts in one cell of the body at any time of life after an embryo is formed. All the cells that come from that cell will typically have the same mutation, which in some cases can lead to cancer. This kind of mutation is different from an inherited mutation, which is present at birth and found in all the cells of the body. Somatic mutations are not passed on to children. Compare to inherited disease. See also deoxyribonucleic acid, embryo, mutation.

spectral karyotyping [SPECK-truhl KAIR-ee-o-TYPE-ing] Often shortened to SKY; also called chromosome painting. A cytogenetic test that uses different colors to see all the pairs of chromosomes in a cell. See also chromosome, cytogenetics.

speech therapist Also called a speech pathologist (path-AHL-uh-jist). A health professional who is specially trained to work with people who have speech and swallowing problems. Speech therapists help people learn skills to communicate and also make sure that patients can eat and drink.

sperm The mature male reproductive cell that must combine with an egg (ovum) to make a baby. Males start making sperm in their testicles after they go through puberty. See also ova.

s-phase fraction The percentage of cells that are making a copy of their DNA (deoxyribonucleic acid) or replicating. DNA replication usually means that a cell is getting ready to split into 2 new cells. A low s-phase fraction is a sign that a tumor is slow-
growing; a high s-phase fraction shows that the cells are dividing rapidly and the tumor is growing quickly. See also deoxyribonucleic acid.

**sphincter** [SFINK-ter]
A ring-like muscle that can open and close to control the passage of substances in the body. For example, the urethral sphincter squeezes the urethra shut and allows the control of urine. Two of these muscles in the anus, the external and internal anal sphincters, control when poop (stool) leaves the body. See also anus, urethra, urine.

**spinal cord**
A long bundle of nerves that makes up part of the central nervous system. It runs up the back enclosed inside the bones of the spine (the vertebrae) and connects to the brain. It carries sensory information from the body to the brain and motor information (signals to move body parts) from the brain to the body. See also brain, central nervous system, peripheral nervous system, vertebra.

**spinal cord compression**
Any process that results in pressure on the spinal cord, the spinal nerve trunks, or both. Pressure on the spinal cord can cause numbness, loss of the ability to move (paralysis), or loss of control (incontinence) of poop (stool) or urine. This can happen when cancer spreads to the spine. See also paralysis, spinal cord, urine.

**spinal tap**
See lumbar puncture.

**spindle cell** [SPIN-duhl sell]
A cell that, when seen under a microscope, looks like a long oval. Some types of sarcomas, melanomas, and carcinomas have this type of cell. There are also normal cells of the body that are spindle shaped. See also carcinoma, melanoma, sarcoma.

**spiral CT**
Also called helical CT. The most common type of CT (computed tomography) scan. The scanner moves around the body quickly in a spiral or helix pattern
as it uses x-rays to make detailed cross-sectional pictures. See also computed tomography scan.

spleen

Organ of the immune system in the upper left side of the belly (abdomen) which stores blood, breaks down old blood cells, and helps form some white blood cells such as lymphocytes. See also immune system, lymphocyte.

sputum cytology [SPEW-tum sy-TAHL-uh-jee]

A study of mucus or phlegm cells under a microscope to see if they are normal.

squamous cell carcinoma [SKWAY-mus sell CAR-sin-O-mah]

Cancer that begins in the flat, non-glandular cells of the body, for example, the skin or the lining of some of the body’s organs.

stage

The extent of a cancer, which is usually assigned a number from I to IV. May be called stage grouping. See also staging.

staging

The process of finding out whether cancer has spread and if so, how far; the process of learning the stage of a cancer. There’s more than one system for staging different types of cancer.

The TNM staging system, which is used most often, is typically based on 3 key pieces of information.

T refers to the main tumor (its size and/or whether it has grown into nearby areas)

N describes whether the cancer has spread to nearby lymph nodes

M shows whether the cancer has spread (metastasized) to other organs of the body

Letters and/or numbers after the T, N, and M give more details about each of these factors. To make this information clearer, the TNM descriptions can be grouped together into a simpler set of stages, labeled with Roman numerals (usually from I to IV). In general, the lower the number, the less the cancer
has spread. A higher number means a more advanced cancer.

The 2 main types of staging are clinical and pathologic.

Clinical staging is an estimate of the extent of cancer based on physical exam, biopsy results, and imaging tests.

Pathologic staging is an estimate of the extent of cancer based on the clinical stage, plus what was found during surgery.

**standard therapy**

Also called conventional treatment or mainstream treatment. The most commonly used and most widely accepted form of treatment, which has usually been tested and proven. See also clinical trials, therapy.

**stem cell transplant**

See hematopoietic stem cell transplant.

**stem cells**

Any type of cell that can mature into different types of cells. In cancer treatment, the term usually refers to the immature blood cells found in the bone marrow and blood. Even though they start out the same, these stem cells can mature into all types of blood cells. See also bone marrow.

**stenosis** [steh-NO-sis]

A narrowing (stricture) of a structure in the body such as a duct, blood vessel, or section of intestine. See also duct.

**stent**

A small hollow tube, usually made of metal or plastic, that’s put in the body to support and hold open a structure such as a blood vessel, bile duct, or section of intestine.

**stereotactic needle biopsy** [STEER-ee-o-TACK-tick NEED-ul BY-op-see]

A method of needle biopsy that may be used when calcifications or a mass can be seen on imaging tests but can’t be felt. A computer maps the location of the mass and is used to guide the needle to the area of concern. See also biopsy, calcifications, needle aspiration, needle biopsy, imaging tests.
**Stereotactic radiosurgery** [STEER-ee-o-TACK-tick RAY-dee-o-SUR-jeer-ee]

A type of radiation therapy that focuses a single high dose of radiation at a tumor from many different angles, which limits the damage to nearby normal tissues. Though it’s called surgery, there’s no cutting. The treatment may be useful for tumors that are in places where regular surgery would harm essential tissue, for instance, in sensitive parts of the brain or spinal cord, or when the patient is not well enough to go through regular surgery. See also radiation, spinal cord.

**sternum**

Breastbone; the flat bone where the ribs meet in the center front of the chest.

**stoma** [STO-muh]

A surgically created opening from an area inside the body to the outside. For instance, a stoma on the belly (abdominal wall) that’s made to allow body waste to come out is called a colostomy. See also colostomy.

**stomatitis** [STO-muh-TIE-tus]

Inflammation, sores, or ulcers of the mouth. Stomatitis can be a side effect of some kinds of chemotherapy and radiation therapy.

**stool**

Also called poop or feces. Solid waste matter; feces.

**stool DNA testing**

A method to detect abnormal DNA (deoxyribonucleic acid) in cells that rub off from colorectal cancers and come out in the poop (stool). This test is being studied as a screening test for colorectal cancer, but it’s not currently available. See also colorectal cancer, deoxyribonucleic acid, screening.

**stool softener**

A mild type of laxative that helps keep poop (stool) from becoming hard, dry, and difficult to pass. See also laxative.

**stress incontinence**

Passing a small amount of urine when coughing, laughing, sneezing, or exercising. Compare to overflow incontinence, urge incontinence, urine.
stricture, urethral [STRIK-chur, yoo-REE-thrul]
A narrowing of the urethra, often due to scar tissue, that blocks the flow of urine, which can result in leaking urine (overflow incontinence). This can often be treated by surgically removing the scar tissue and stretching the urethra. See also overflow incontinence, urethra, urine.

stroma [STRO-muh]
Connective tissue.

stromal tumor
See gastrointestinal stromal tumors.

strontium-89 [STRON-tee-um]
A radioactive substance (radioisotope) that’s used to treat bone pain caused by cancer that has spread to the bones. It’s injected into a vein, travels through the blood, and is attracted to areas of bone that contain cancer. The radiation given off by the strontium-89 kills the cancer cells and helps relieve pain. See also radioisotope.

submucosa [SUB-mew-KO-suh]
A layer of tissue beneath a mucous membrane. In the colon, for example, it’s between the muscularis mucosa and the muscularis propria. See also mucous membrane.

supraclavicular lymph nodes [SUE-pruh-klah-VICK-you-lar]
The lymph nodes just above the collarbone (clavicle). See also lymph node.

surgeon [SUR-jun]
A doctor who repairs or removes parts of the body during operations.

surgical biopsy
Also called open surgical biopsy. Removal of tissues using open surgery so that they can be looked at under a microscope to find out if they contain cancer cells. Compare to fine needle aspiration biopsy. See also biopsy.

surgical margin
Edge of the tissue removed during surgery. A negative surgical margin means no cancer cells were found on the outer edge of the removed tissue, and is
considered a sign that none of the cancer was left behind. A positive surgical margin means that cancer cells are found at the outer edge of the tissue removed and is usually a sign that some cancer remains in the body. Sometimes the actual edge looks clear but the cancer cells are very close to the edge, called a narrow surgical margin. With certain fast-growing (aggressive) types of cancer, a narrow margin is reason enough for another surgery to remove more tissue. See also margin.

**surgical oncologist**  [SUR-jik-ul-ON-KAHL-uh-jist]

A doctor who specializes in using surgery to treat cancer. See also cancer care team.

**survival rate**

The percentage of people alive within a certain period of time after diagnosis. For cancer, a 5-year survival rate is often given. This does not mean that people can’t live more than 5 years, nor does it mean that those who live for 5 years are permanently cured (although some might be). See also five-year survival rate, five-year relative survival rate.

**survivor**

Not generally used as a medical term, survivor can have different meanings when applied to people with cancer. Some people use the word to refer to anyone who has ever been diagnosed with cancer. For example, someone living with cancer may be considered a survivor. Some people use the term to refer to someone who has completed cancer treatment. Others call a person a survivor if he or she has lived several years past a cancer diagnosis. The American Cancer Society believes that each person has the right to define his or her own experience with cancer and considers a cancer survivor to be anyone who describes himself or herself this way, from diagnosis throughout the rest of his or her life.

**survivorship**

The state of being a cancer survivor, that is, having been diagnosed with cancer. See also survivor.

**symptom**  [SIMP-tuhm]

A change in the body caused by an illness or condition, as described by the person experiencing it. Compare to sign.
synchronous [SIN-kruh-nus]
Occurring at the same time; for example, cancer in both breasts at the same time is synchronous. Compare to metachronous.

synergistic [SIN-er-JIS-tick]
Acting together. A synergistic agent can act together with one or more other agents to produce an effect greater than their individual effects. Some chemotherapy drugs act synergistically. See also chemotherapy.

systemic disease [sis-TEM-ick]
In cancer, this term means that a cancer that started in one place has spread to distant organs or structures. Compare to carcinoma in situ, localized cancer.

systemic therapy [sis-TEM-ick]
Treatment that reaches and affects cells throughout the body; for example, chemotherapy. Compare to local therapy. See also chemotherapy.

T

T lymphocytes [LIM-fo-sites]
Also called T cells. White blood cells that mature in the thymus. They make cytokines and play a large role in the immune response against viruses, transplanted organs and tissues, and cancer cells. See also cytokines, thymus, white blood cells.

targeted therapy
Treatment with drugs that attack some part of cancer cells that’s different from normal cells. Targeted therapies sometimes work when standard chemotherapy drugs don’t, and they tend to have fewer side effects than chemotherapy drugs. See also chemotherapy.

temporary brachytherapy
See high-dose rate brachytherapy.
terminal [TER-min-uh-l]

In medicine, generally understood to mean that the disease can no longer be effectively treated or cured, and the patient is dying.

testicles or testes [TESS-tick-ulls, TESS-teez]

The male reproductive glands normally found in the scrotum. The testicles produce sperm and male hormones such as testosterone. See also hormone, scrotum, sperm, testosterone.

testosterone [tes-TOSS-ter-own]

Called the male hormone, it’s made mostly in the testicles. It stimulates blood flow, growth in certain tissues, and secondary sexual characteristics. It can make prostate cancer cells grow. See also hormone, prostate, testicles.

therapy

Also called treatment. Any measures taken to fight or treat a disease.

thermography [thur-MOG-ruh-fee]

A method in which heat from the breast is measured and mapped. The resulting image is called a thermogram. This is not a reliable way to find breast cancer.

thoracic surgeon [thuh-RAS-ick SUR-jun]

A doctor who operates on organs in the chest cavity. The word thoracic refers to the thorax, another name for the chest.

three-dimensional conformal radiation therapy [dih-MEN-shuh-nul kun-FOR-mul RAY-dee-AH-shun THAIR-uh-pee]

Often shortened to 3DCRT. Treatment that uses computers to very precisely map the location and the depth, width, and height of the cancer within the body. The patient may be fitted with a plastic mold much like a cast to keep them still and in the same position for each treatment so that the radiation can be aimed precisely. Radiation beams are then focused on the tumor from several directions. This reduces damage to normal tissues and allows higher doses of radiation to be used. See also external beam radiation therapy, radiation.
**Thrombocytopenia** [THROM-bo-SY-toe-PEEN-ee-uh]
A decrease in the number of platelets in the blood, which can result in an increased risk of bleeding. See also **blood count, platelet**.

**thymus**
An organ at the base of the neck (behind the upper breastbone) that helps certain lymphocytes mature. The thymus is part of the immune system. See also **immune system, lymphocyte**.

**thyroid**
A gland at the front of the neck which makes hormones that regulate how quickly the body uses energy and affects many other body functions. The word *thyroid* can also refer to certain hormones made by the thyroid gland. See also **hormone**.

**tibia** [TIB-ee-uh]
Also called the **shinbone**. The thicker, inner bone (on the big toe side) of the 2 bones in the lower leg that go from the knee to the ankle. Compare to **fibula**.

**tissue** [TISH-oo]
A collection of cells that work together to perform a particular function.

**TNM staging system**
See staging.

**total androgen blockade**
See **combination hormone therapy**.

**total colon exam**
Often shortened to TCE. An exam that looks at the entire colon; for examples, see **colonoscopy** or **double contrast barium enema**. See also **colon**.

**toxicity** [tocks-IS-i-tee]
In medical treatment, the harmful effects of a medicine or treatment, especially at higher doses. Can also refer to the effects of poisons or other non-medical substances.
**TP53**

An important tumor suppressor gene that’s often changed (*mutated*) and not working properly in cancer cells. The protein that this gene makes (called *p53*) normally causes damaged cells to die. Changes (*mutations*) in this gene can be passed on from a parent (*inherited*) or they can happen during a person’s life. Inherited TP53 mutations can increase the risk of many types of cancer. See also **hereditary cancer syndrome, inherited disease, mutation, tumor suppressor genes**.

**trachea** [TRAY-key-uh]

Also called the **windpipe**. The trachea connects the voice box (*larynx*) with the 2 large breathing tubes that lead into the lungs (*bronchi*) and serves as the main passage for air coming from the nose and mouth into the bronchi and lungs.

**tracheostomy** [TRAY-key-AH-stuh-me]

Surgery to create an opening (*stoma*) of the trachea through the front of the neck; also used as a term for the opening itself. See also **stoma, trachea**.

**transfusion** [trans-FEW-zhun]

Blood or blood products that are given into a vein (*intravenous* or IV). Most such products are taken from unrelated donors and tested for disease before use, but a person can donate their own blood ahead of time to be given during certain planned surgeries or procedures.

**transition zone** [tran-ZIH-shun]

Area of passage from one part or condition to another. In the prostate, the transition zone refers to the innermost area that surrounds the urethra, where **benign prostatic hyperplasia** (BPH) develops. See also **benign prostatic hyperplasia, prostate, urethra**.

**translocation** [TRANZ-low-KAY-shun]

Genetic material that’s out of its normal place, as when DNA (deoxyribonucleic acid) from one chromosome breaks off and attaches to a different chromosome. See also **chromosome, deoxyribonucleic acid, mutation**.
**Transrectal ultrasound** [trans-REK-tul UL-truh-sound]

Often shortened to **TRUS**. An imaging test in which a probe is put in the rectum, where it puts out sound waves to make a picture of the prostate on a screen to help find tumors. See also **prostate, rectum**.

**transurethral resection of the prostate** [TRANS-yoo-REE-thruh-sek-shun]

Often shortened to **TURP**. An operation to remove the inner part of the prostate gland that surrounds the tube through which urine exits the bladder (the **urethra**). This procedure is most often used to relieve symptoms of benign prostatic hyperplasia (BPH). See also **benign prostatic hyperplasia (BPH), prostate, urine**.

**transverse colon** [TRANS-verse KO-lun]

The second section of the colon, a part of the large intestine. It’s called transverse because it goes across the body from the right to the left side. See also **colon, ascending colon, descending colon, sigmoid colon**.

**transverse rectus abdominus muscle flap procedure** [TRANS-verse REK-tus ab-DOM-in-us]

Also called a **TRAM flap** or **rectus abdominus flap procedure**. A method of breast reconstruction in which tissue from the lower belly (**abdomen**) including the **rectus abdominus muscle** is moved up to the chest and used to create a breast mound. An implant is usually not needed. Moving muscle and tissue from the lower abdomen to the chest results in flattening of the lower abdomen (a “tummy tuck”). See also **breast reconstruction**.

**triple-negative breast cancer**

Breast cancer that does not have estrogen receptors, progesterone receptors, or an excess of HER2 (human epidermal growth factor receptor 2). This limits the treatment options for patients. See also **estrogen receptor assay, human epidermal growth factor receptor 2, progesterone receptor assay**.

**TRUS**

See **transrectal ultrasound**.

**tubular adenoma** [TUBE-yoo-ler AD-no-muh or AD-uh-NO-muh]

A type of non-cancerous polyp in the colon or other parts of the digestive tract that’s made up of gland cells formed into tubes, in which the tubular
structure generally makes up more than 75% of the polyp. Because they can become cancer, they are usually removed. See also adenomatous polyp, colon, digestive system, glandular cells, polyp, tubulovillous adenoma, villous adenoma.

tubular carcinoma [TUBE-yoo-ler CAR-sin-O-muh]
A rare type of low-grade invasive breast cancer. See also grade, invasive ductal carcinoma.

tubulovillous adenoma [TUBE-yoo-lo-VIH-lus AD-no-muh or AD-uh-NO-muh]
A type of non-cancerous polyp in the colon or other parts of the digestive tract that’s made up of gland cells formed into tubes, as well as finger-like projections of gland cells. The finger-like parts usually make up 25% to 50% of the polyp. These adenomas can become cancer, and are usually removed. See also adenomatous polyp, colon, digestive system, glandular cells, polyp, tubular adenoma, villous adenoma.

tumor [TOO-mer or TYOO-mer]
An abnormal lump or mass of tissue. Tumors can be non-cancers (benign) or cancer (malignant).

tumor flare
Short-term worsening of symptoms or increase in tumor markers. See also symptoms, tumor markers.

tumor markers
Substances that can be found in the body (in the blood, urine, or other body fluids or tissues) when a person has cancer. These substances are usually made by cancer cells, but are sometimes by normal cells as well. Different types of cancer can have different tumor markers. For example, prostate-specific antigen (PSA) is a tumor marker for prostate cancer. Ideally, a tumor marker would always be found when a person has a certain type of cancer, and would never be found if a person didn’t have cancer. But in reality tumor markers are rarely like that, because normal cells can often make them as well.

So far, tumor markers haven’t been found to be very useful for cancer
screening (looking for cancer in people who don’t have symptoms). But once cancer has been diagnosed, some tumor markers can be helpful in determining treatment options, watching for a response to treatment, looking for cancer that has come back (reurred), or monitoring the progression of advanced cancer. See also screening, advanced cancer.

**tumor necrosis factor** [TOO-mer or TYOO-mer neck-ROW-sis]

Often shortened to TNF. A substance made by white blood cells that can cause the death of tumor cells. See also necrosis, white blood cells.

**tumor suppressor genes**

Genes that slow down cell division or cause cells to die at the right time. Changes (mutations) in these genes can lead to too much cell growth and development of cancer. Compare to oncogenes. See also gene, mutation.

**tumor volume**

Measure of the amount of cancer present.

**TURP**

See transurethral resection of the prostate.

**two-step procedure**

In breast cancer, a method in which the procedure to diagnose the presence of breast cancer (biopsy) and breast surgery for cancer treatment (such as lumpectomy or mastectomy) are done as 2 separate procedures, days or even weeks apart. This method is often preferred by women and their health care teams because it gives them time to consider all options. Compare to one-step procedure. See also biopsy, lumpectomy, mastectomy.

**U**

**ulcerative colitis** [UL-suh-ruh-tiv kuh-LIE-tis]

A type of inflammatory bowel disease where the colon is inflamed over a long period of time. This increases a person’s risk of developing colon cancer, so starting colorectal cancer screening earlier and doing these tests more often
is recommended. See also **colon, colorectal cancer screening, inflammatory bowel disease**.

**ulna** [UL-nuh]
The bone in the forearm (between the elbow and the wrist) that’s on the same side as the little finger. Compare to **radius**.

**ultrasound** [UL-truh-sound]
Also called or **ultrasonography** (UL-truh-son-AH-gruf-ee) imaging test in which high-frequency sound waves are used to make pictures of the inside of the body. The sound wave echoes are picked up and displayed on a computer screen. See also **imaging tests**.

**umbilical cord blood transplant**
A type of stem cell transplant in which stem cells in the blood taken from the umbilical cord of a newborn are used to replace the blood-forming stem cells in patients whose own stem cells were destroyed by radiation and/or chemotherapy. See also **chemotherapy, hematopoietic stem cell transplant, radiation, stem cells**.

**unilateral** [YOO-nih-LAT-uh-ruhl]
Affecting only one side of the body. For example, unilateral breast cancer occurs in one breast only. Compare to **bilateral**.

**unproven therapy**
Any therapy that has not been scientifically tested and shown to work.

**unstaged cancer**
Cancer that’s been diagnosed but has not yet been staged, so the full extent of the cancer is not yet known. See also **staging**.

**ureter** [YUR-uh-ter or yoo-REE-ter]
A tube that carries urine from each kidney to the bladder. A person normally has 2 ureters. Compare to **urethra**. See also **bladder, kidney, urine**.

**urethra** [yoo-REE-thruh]
The tube that carries urine from the bladder to the outside of the body. In women, this tube is fairly short. In men it’s longer, passing through the
prostate and the penis, and it also carries the semen. Compare to ureter. See also bladder, kidney, penis, prostate, semen, urine.

urge incontinence
A sudden and uncontrollable urge to pass urine. This happens when the bladder becomes too sensitive to stretching when full of urine. Compare to stress incontinence, overflow incontinence. See also bladder, urine.

urinary frequency [YUR-uh-nair] [YUR-uh-nair-ee]
The need to pass urine often. See also urine.

urinary hesitancy [YUR-uh-nair-ee]
Being unable to start the stream of urine right away. See also urine.

urinary incontinence [YUR-uh-nair in-KON-tin-ens]
Partial or complete loss of urine control. See also overflow incontinence, stress incontinence, urge incontinence, urine.

urinary retention [YUR-uh-nair re-TEN-chun]
Being unable to empty the bladder or pass urine. See also bladder, urine.

urinary tract [YUR-uh-nair-ee]
The system that filters blood and helps remove certain chemicals and fluids from the body in the form of urine. It includes the kidneys, ureters, bladder, and urethra. See also bladder, kidney, ureter, urethra, urine.

urinary urgency [YUR-uh-nair-ee]
Feeling the need to pass urine right away. See also urine.

urinate [YUR-uh-NATE]
To release urine from the bladder. See also bladder, urine.

urine [YUR-in]
Also called pee. Liquid waste made by the kidneys and stored in the bladder. See also bladder, kidney.

urine cytology [YUR-in sy-TAHL-uh-jee]
A lab test in which urine is examined under a microscope to look for cancer and pre-cancer cells. Cytology can also be done on bladder washings, which
are samples taken by putting a salt solution into the bladder and then removing the solution for testing. See also bladder, urine.

urodynamic study [YUR-o-die-NAM-ick]
Test to evaluate how well the bladder muscle and sphincters work. See also bladder, sphincter.

urologist [yur-AHL-uh-jist]
A doctor who specializes in treating problems of the urinary tract in men and women, and problems in the genital area in men. See also urinary tract.

urostomy [yur-AHS-tuh-me]
An opening on the belly (abdomen) through which urine leaves the body. This new path is surgically created. See also stoma, urine.

uterine fibroid tumor [YEW-ter-in FI-broyd TOO-mer or TYOO-mer]
Also called a fibroma. A non-cancerous tumor that’s made of fibrous or connective tissue. It’s the most common tumor found in women. It can be in the uterine wall or protrude into the lining of the uterus. Usually there are no symptoms, but it can cause abnormal bleeding and other symptoms depending on its size and location in the uterus. See also tumor, uterus.

uterus [YEW-tuh-rus]
Also called the womb. The pear-shaped organ in a woman’s pelvis that holds and nourishes the growing baby. The uterus is divided into 3 areas; the body is the upper part, the isthmus is the narrowed central area, and the cervix is at the base. See also pelvis.

W

Waldenstrom macroglobulinemia [WAL-den-strom MACK-row-GLOB-yuh-lin-EE-mee-uh]
Also called lymphoplasmacytic lymphoma. A type of non-Hodgkin lymphoma in which the cells make large amounts of an abnormal protein called a macroglobulin. The lymphoma cells grow mainly in the bone marrow and
crowd out normal blood cells. See also bone marrow, macroglobulinemia, non-Hodgkin lymphoma.

watchful waiting

See expectant management.

white blood cells

Often shortened to WBCs. Blood cells that help defend the body against infections. There are many types of white blood cells. Certain cancer treatments, such as chemotherapy, can reduce the number of these cells and make a person more likely to get infections. See also blood count, chemotherapy, immune system.

Whitmore-Jewett staging system

Classification system for prostate cancer using the categories A, B, C, or D. It’s largely been replaced by the TNM system. Whitmore-Jewett staging can be translated into the TNM system, or the doctor can explain how this staging system will affect treatment options. See also prostate, staging.

Wilms tumor

Also called Wilms’ tumor or nephroblastoma. A rare type of cancer that starts in the kidney and mainly affects young children. See also kidney.

wire localization [LO-cull-ih-ZAY-shun]

A method used when doing surgery to take out tissue for testing (surgical biopsy) and the lump is hard to find or there’s an area that looks suspicious on the x-ray. A thin, hollow needle is placed in the tissue and x-rays are used to guide the needle to the area of concern. A fine wire is put through the center of the needle. A small hook at the end of the wire keeps it in place. The hollow needle is then removed, and the surgeon uses the path of the wire as a guide to find the area to be removed. See also biopsy, surgical biopsy.

x-ray

one form of radiation that can be used at low levels to make an image of the body or at high levels to kill cancer cells. See also imaging tests, radiation.