

Chapter 18: Glossary

Advanced cancer: When the cancer has spread to other parts of the body (including lymph nodes, bones, or other organs) and is no longer contained to the source.

Alternative treatments: A possible means of treating cancer, such as taking particular herbs or vitamins, that is not considered a standard medical treatment. Usually used in place of or in addition to radiation, chemotherapy or surgery.

Androgens (also called anabolic steroids): Male hormones, such as testosterone, are called androgens. They are produced in the testicles and adrenal glands. Androgens may make prostate cancer grow faster.

Anti-androgens: Drugs or medicines that keep androgens from working. They can stop male hormones from causing prostate cancer cells to grow.

Antioxidants: Substances that prevent oxidation in cells, which can damage DNA. Many vegetables contain antioxidants, especially tomatoes.

Benign prostatic hyperplasia (BPH): Often mistaken for prostate cancer, BPH is enlargement of the prostate caused by an overgrowth of noncancerous cells. It has symptoms that are similar to prostate cancer but is not a form of cancer.

Biopsy: Small samples of cells and tissues are removed and then examined under a microscope to make a diagnosis.

Bladder neck contracture: The contracture is a narrowing of the channel through which urine must pass. The narrowing makes it hard to urinate. This can occur when scar tissue forms over the area where the urethra (passageway from the bladder through the penis) and bladder were sewn during the removal of the prostate gland.

Blood urea nitrogen (BUN) test: The BUN test measures the amount of urea nitrogen (a toxin) in the blood. Urea nitrogen levels may be abnormally high in the presence of prostate cancer. A high BUN test can also indicate decreased kidney function or dehydration.

Bone scan: Test used to determine if prostate cancer has spread to the bones. A slightly radioactive substance is injected, and it will collect at an injury or problem spot and show up darker on the scan. Not all spots on the scan indicate cancer.

Bowel incontinence: Uncontrolled defecation (bowel movement)

Brachytherapy: This is a form of cancer treatment in which radioactive seeds are inserted in the prostate to destroy the cancer cells.

Catheter: A bendable tube that is used to deliver or remove fluids to and from the body. A catheter can be inserted into the bladder to remove urine when it is difficult or impossible for a man to urinate on his own, such as after surgery to remove the prostate gland.

Chemotherapy: A type of treatment for advanced cancer that uses cancer-killing drugs. This treatment is usually used when hormone therapy is no longer working.

Clinical trial: A study designed to test effectiveness or side effects of new medicines and treatments. Joining a clinical trial may provide access to therapies otherwise not available.

Cryosurgery: A treatment of cancer cells that involves freezing them to temperatures at which they can no longer survive.

CT scan: A Computerized Tomography (CT) scan takes X-rays of the internal organs in a series of images produced by a computer. The images are detailed and can show any part of the body.

Cystitis: Bladder inflammation is called cystitis, usually caused by a bladder infection.

Cystoscope: A small fiberoptic tube that is used to see inside the bladder or take small tissue samples from the bladder.

Cystoscopy: An examination when a cystoscope is used to look into the bladder.

Da Vinci: Master-slave robot system used in robotic prostatectomies.

Digital rectal examination (DRE): A doctor gloves his or her hand and inserts a lubricated finger into the rectum to examine the prostate.

Dry orgasm: In males, an orgasm could be reached but no semen is released. If there is no ejaculation, it is called a dry orgasm.

Dysuria: Difficult or painful urination.

Endocrine therapy: A form of therapy treatment for a disease in which hormones are adjusted (also known as hormone therapy).

Endorectal coil: A device that is inserted into the rectum and monitored with special imaging called magnetic resonance image (MRI). This device shows different details about the prostate gland than an ultrasound. Endorectal coils can also be used in brachytherapy and to help doctors stage cancer.

Erectile dysfunction (ED): Inability to start or keep a sufficient erection (also called impotence).

External beam radiotherapy (EBRT): X-rays with high-energy beams that can be used in a precise area to target unhealthy cells. Patients usually receive individual treatments five days a week for at least four weeks.

Fiducial seeds: Non-radioactive seeds that act as markers implanted into the prostate before starting external beam radiation that allow for daily targeting of the actual location of the prostate gland.

Free prostate specific antigen (free PSA): A protein released by the prostate. The amount in the blood will increase with age related prostate growth which is benign, or enlargement caused by cancer.

Free PSA percent: Reports the percentage of free-PSA and usually expressed as percentage based on free PSA divided by total PSA x 100; one study showed that men with free PSA percent > 25 percent had low risk of prostate cancer while those with < 10 percent free PSA percent were more likely to have prostate cancer.

Gleason score: A scale with a range of 2 to 10, which predicts how fast cancer cells will grow. The higher the scale, the more aggressive the cancer cells.

Grading the cancer: The Gleason score grading system predicts how fast the cells may grow while the grade affects the treatment options.

Gynecomastia: Male breast tissue enlargement.

Hematuria: The presence of blood in the urine.

High-dose rate (HDR): A form of brachytherapy that employs a tiny radiation source that is temporarily inserted into implant catheters.

Hormone therapy: Treatment using drugs or surgery to stop or block natural male hormones for the purpose of halting or delaying the spread of cancer.

Image Guided Radiation Therapy (IGRT): A radiation treatment targeting technology. IGRT uses improved computerized radiologic techniques to verify the precise tumor location.

Impotence: Another name for erectile dysfunction; impotence means the inability to start or maintain an erection.

Incontinence: Loss of control of the bladder and urination.

Intensity modulated radiotherapy (IMRT): A variation of the dosage and amount of radiotherapy based on the tumor and cancer patient. Each radiation beam is “shaped” to produce a pattern of radiation intensities that work together to destroy cancer cells without destroying the surrounding healthy tissue.

Interstitial cystitis: Painful inflammation or irritation of the lining of the bladder that causes frequent urination and pain.

Kegel exercises: Exercises of the pelvic muscles that may reduce incontinence in men.

Laparoscopic radical prostatectomy: A form of cancer treatment in which the prostate, vas deferens, seminal vesicles and possibly nerves or lymph nodes, are removed using long instruments, (laparoscope) and TV cameras that are inserted through very small incisions in the abdomen.

Localized prostate cancer: Cancer that has not yet spread beyond the prostate. It is in an early stage.

Luteinizing hormone-releasing hormone (LH-RH) agonists: One type of drug or medicine that blocks production of male sex hormones.

Lymphadenectomy: Surgery in which the lymph nodes are removed because of possible or present cancer.

Lymph nodes: The small bean-like structures of the lymphatic system, part of the immune system. The nodes take toxins and dangerous substances out of the body. Cancer sometimes spreads from the prostate to the lymph nodes.

Magnetic Resonance Imaging (MRI): A way to image soft body tissues. The MRI uses powerful magnets and radio waves. It is non-invasive and can produce very detailed images.

Metastasis: Cancer cells that have spread from the original source to the bones, the lymph nodes, or other parts of the body.

Microwave therapy: Cancer treatment that uses very high temperatures to make cancer cells more responsive to radiation and some types of chemotherapy.

Nerve-sparing radical prostatectomy: A prostatectomy which removes the prostate and the seminal vesicles, but preserves the nerves necessary for erections.

Nocturia: Waking up at night with the desire to urinate.

Oncologist: A doctor who has studied and is certified in treatment of cancer. It is a specialty of general medicine. There are types of oncologists, including radiation oncologists who do radiation, medical oncologists who do chemotherapy, and urological oncologists who perform surgery.

Orchiectomy: Removal of testes through surgery to reduce presence of male sex hormones and slow progress of prostate cancer.

Palliative: Treatment designed to relieve a particular problem without necessarily solving it. For example, palliative therapy is given in order to relieve symptoms and improve quality of life, but it does not cure the patient.

Pathologist: A doctor who studies cells and tissues (biopsies) in order determine if disease is present. Based on a biopsy of the prostate, the pathologist will determine if cancer is present and determine the grade (Gleason score).

Penile implant (also called a prosthesis): An inflatable (or rigid) device that is inserted into the penis of a man with impotence or erectile dysfunction. It allows a man to have and maintain an erection.

Peripheral zone: The outside area of the prostate.

Permanent seeds: A form of brachytherapy where tiny radiation sources are permanently implanted to eradicate the disease with radiation from within the prostate.

Priapism: An erection that lasts longer than four to six hours.

Prostate specific antigen (PSA) test: A test that measures PSA, a protein made by prostate cells. High or rising levels could be caused by prostate cancer, though some increases are seen with benign or non-malignant changes in the prostate gland.

Prostascint: A nuclear medicine scan that uses an antibody test directed against the prostate specific membrane antigen (PSMA) to look for lymph node involvement by metastatic prostate cancer.

Prostatic intraepithelial neoplasia (PIN): Increased growth of cells in the lining and outside of prostate. It is considered precancerous because it is an indicator of future cancer. Only high-grade PIN (PIN 3) is considered a risk for prostate cancer.

Prostatitis: An inflamed prostate, usually caused by an infection.

PSA velocity: The speed at which the PSA is going up.

Radiation therapy (also know as radiotherapy): Cancer treatment that involves high-energy sources that kill cancer cells. It can be external rays or come from implanted internal radioactive seeds.

Radical prostatectomy: Cancer treatment that involves removal (through surgery) of the prostate gland, seminal vesicles and other affected tissues. The incision can be between the scrotum and the anus (perineal) or in the lower abdomen (retropubic) or several small incisions in the abdomen using special instruments (laparoscopy).

Robotic prostatectomy: A surgery to remove the prostate gland using robotic-controlled instruments.

Salvage: A procedure intended to “rescue” a patient from a failed prior therapy.

Scrotum: The sac of skin that surrounds and holds the testicles.

Seminal vesicles: Glands above the prostate that hold semen prior to ejaculation. The seminal vesicles are attached to the prostate and are routinely removed with the prostate during a prostatectomy.

Spectroscopy: An experimental scanning technique used along with MRI to try to better define the amount of cancer within the prostate gland.

Staging: The process of determining how extensive the tumor is within the prostate, whether it has extended outside the prostate, and whether it has spread to the lymph nodes, bones or other organs. The Tumor Node Metastasis (TNM) system is a commonly used staging method.

Sural nerve graft: Surgery where nerves are taken from a man's leg and ankle and grafted in place of the erection-controlling nerve bundles removed during the prostatectomy. If successful, erectile function can be maintained.

Testosterone: Male sex hormone that usually allows normal male-specific functioning. However, it can also make prostate cancer grow faster.

Three-dimensional conformal therapy: Computer generated three-dimensional images of the cancerous areas are generated and compared to normal images. Then, highly specific and personalized radiation regimens are developed so that high doses of radiation can be concentrated in only cancerous areas without increasing side effects.

Transitional zone: The area located toward the middle of the prostate gland. The transitional zone is the area where benign prostatic hypertrophy – a benign growth of the prostate gland – develops and grows. In most cases, prostate cancer starts in the peripheral zone, but it may also start in the transitional zone (although this is rare).

Transrectal ultrasonography: A diagnostic procedure that uses sound waves produced by a tube inserted into the rectum to evaluate the prostate. A special biopsy needle can be passed through the probe to sample pieces of tissue from specific areas of the prostate.

Transurethral resection of the prostate (TURP): A procedure that is used to treat serious cases of benign prostatic hypertrophy — a benign growth of the prostate gland.

Tumor noted metastasis (TNM) system: A cancer classification or staging system that is used (in all types of cancer) to indicate how advanced the cancer is.

Ultrasound: Sound waves with high frequency are used to image the inside of the body. It is non-invasive.

Urethra: In men, the tube that leads semen and urine out of the penis and sex glands.

Urinary incontinence: Inability to control urination.

Urologist: A doctor who is specially trained in the surgical treatment of urinary problems and with male sex organs.

Watchful waiting (active surveillance): The decision to not treat localized prostate cancer with surgery, radiation, hormone therapy or any other treatment options. Instead, the doctor observes the prostate cancer by frequent rectal examination and PSA tests. This is often used

in men with slow-growing tumors. It requires frequent and careful monitoring and perhaps motivation and lifestyle changes.