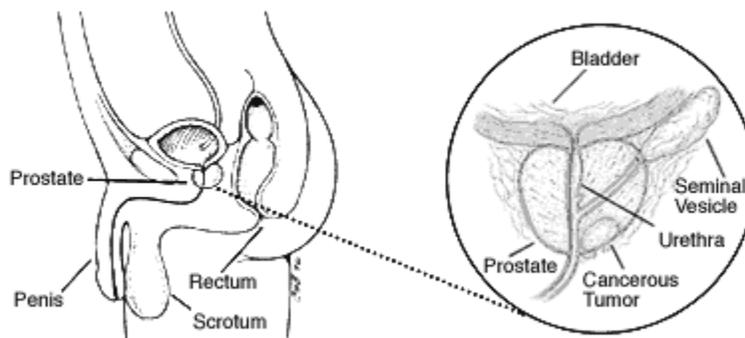


Information for Behavioral Health Providers in Primary Care

Prostate Cancer Information Sheet

Prostate Cancer

The prostate is a gland found only in men. The prostate is about the size of a walnut. It is just below the bladder and in front of the rectum. The tube that carries urine (the urethra) runs through the prostate. The prostate contains cells that make some of the seminal fluid. This fluid protects and nourishes the sperm. Male hormones cause the prostate gland to develop in the fetus. The prostate keeps on growing as a boy grows to manhood. If male hormone levels are low, the prostate gland will not grow to full size. In older men, though, the part of the prostate around the urethra often keeps on growing. This causes BPH (benign prostatic hyperplasia) which can result in problems with urinating.



Although there are several cell types in the prostate, nearly all prostate cancers start in the gland cells. This kind of cancer is known as adenocarcinoma. The rest of this information refers only to prostate adenocarcinoma. Most of the time, prostate cancer grows slowly. Autopsy studies show that many older men who died of other diseases also had prostate cancer that neither they nor their doctor were aware of. But sometimes prostate cancer can grow and spread quickly. Even with the latest methods, it is hard to tell which prostate cancers will grow slowly and which will grow quickly. Some doctors believe that prostate cancer begins with very small changes in the size and shape of the prostate gland cells. These changes are known

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as PIN (prostatic intraepithelial neoplasia). These changes can be either low-grade (almost normal) or high-grade (abnormal). If a patient has had a prostate biopsy that showed high-grade PIN, there is a greater chance that there are cancer cells in the prostate. For this reason, the patient will be watched carefully and may need another biopsy.

Treatment Options

The treatment for prostate cancer should take into account: the patient's age and expected life span; any other serious health conditions they may have; the stage and grade of the cancer; the patient's feelings (and their doctor's opinion) about the need to treat the cancer; the likelihood that each type of treatment will cure the cancer (or provide some other measure of benefit); and the patient's feelings about the side effects common with each treatment.

Watchful Waiting

Because prostate cancer often grows very slowly, some men (especially those who are older or have other serious health problems) may never need treatment for their prostate cancer. Instead, their doctors may recommend an approach known as expectant management, or "watchful waiting." This approach involves closely monitoring the cancer without active treatment such as surgery or radiation therapy. It may be recommended if the cancer is not causing any symptoms, is expected to grow very slowly, and is small and contained within one area of the prostate. Active treatment carries definite risks and side effects that may sometimes outweigh the possible benefits. Some men choose watchful waiting for this reason. Others are not comfortable with this approach, and are willing to accept the possible side effects of active treatments in order to try to remove or destroy the cancer. Watchful waiting does not mean the patient does not receive medical care or follow-up. Rather, the cancer will be carefully monitored. Usually this approach includes a PSA blood test and digital rectal examination (DRE) every 3 to 6 months or so, possibly with yearly transrectal ultrasound-guided biopsy of the prostate.

Surgery

Radical prostatectomy is surgery that attempts to cure prostate cancer. It is used most often if the cancer is not thought to have spread outside of the gland (stage T1 or T2 cancers). In this operation, the surgeon removes the entire prostate gland plus some of the tissue around it, including the seminal vesicles. There are several different types of radical prostatectomy surgical procedures. The major possible *side effects* of radical prostatectomy are urinary incontinence and impotence. It should be noted that these side effects are also possible with other forms of therapy. For men who have had surgery for prostate cancer, normal bladder control usually returns within several weeks or months after radical prostatectomy

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but it can persist in some men. This recovery usually occurs gradually, in stages. Kegel exercises, medication, and surgery may benefit incontinence. Return of sexual function varies from man to man. Since radical prostatectomy cuts the connection between the testicles and the urethra, sterility also occurs. A rare but possible complication of removing many of the lymph nodes around the prostate is a condition called lymphedema. Lymph nodes normally provide a way for fluid to return from all areas of the body to the heart. When nodes are removed, fluid may collect in the legs or genital region over time, causing swelling and pain. Lymphedema can usually be treated with physical therapy, although it may not disappear completely.

Radiation Therapy

Radiation therapy uses high-energy rays or particles to kill cancer cells. Radiation is sometimes used as the initial treatment for low-grade cancer that is still confined within the prostate gland or that has only spread to nearby tissue. Cure rates for men with these types of cancers are much like those for men getting radical prostatectomy. Radiation is also sometimes used if the cancer is not completely removed or recurs in the area of the prostate after surgery. If the disease is more advanced, radiation may be used to reduce the size of the tumor and to provide relief from present and possible future symptoms. Two main types of radiation therapy are used: external beam radiation and brachytherapy (internal radiation). Brachytherapy (also called seed implantation or interstitial radiation therapy) is the use of small radioactive pellets, or “seeds”, Each about the size of a grain of rice that are placed directly into the prostate. Brachytherapy is generally used only in men with early stage prostate cancer that is relatively slow growing. Possible side effects of external beam radiation include bowel problems, bladder problems, impotence, fatigue, and lymphedema. Possible side effects of brachytherapy also include bowel problems, urinary problems and impotence.

Cryosurgery

Cryosurgery (also called cryotherapy or cryoablation) is sometimes used to treat localized prostate cancer by freezing it. As with brachytherapy, this may not be a good option for men with large prostate glands. In this approach, several hollow probes (needles) are placed through the skin between the anus and scrotum (the perineum). The doctor guides them into the prostate using transrectal ultrasound (TRUS). Very cold gases are passed through the needles, creating ice balls that destroy the prostate gland. Warm saltwater is circulated through a catheter in the urethra to keep it from freezing. Cryosurgery is less invasive than radical prostatectomy, so there is usually less blood loss, a shorter hospital stay, shorter recovery period, and less pain than with surgery. But compared with surgery or radiation therapy, doctors know much less about the long-term effectiveness of cryosurgery. Current techniques using ultrasound guidance and precise temperature

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monitoring have only been available for a few years. Side effects from cryosurgery tend to be worse if it is done in men who have already had radiation therapy, as opposed to men who have it as the first form of treatment. The freezing may affect the bladder and intestines, which can lead to pain, burning sensations, and the need to empty the bladder and bowels often. Most men recover normal bowel and bladder function over time. Freezing damages nerves near the prostate and causes impotence in up to 80% of men who have cryosurgery. Erectile dysfunction is more common after cryosurgery than after radical prostatectomy. Urinary incontinence is rare in men who have cryosurgery as their first treatment for prostate cancer, but it is more common in men who have already had radiation therapy. A fistula (an abnormal connection) between the rectum and bladder develops in less than 1% of men after cryosurgery. This rare but serious problem can allow urine to leak into the rectum and may require surgery to repair.

Hormone (Androgen Deprivation) Therapy

Hormone therapy is also called androgen deprivation therapy (ADT) or androgen suppression therapy. The goal is to reduce levels of the male hormones, called androgens, in the body. Androgens, produced mainly in the testicles, stimulate prostate cancer cells to grow. Lowering androgen levels often makes prostate cancers shrink or grow more slowly. However, hormone therapy does not cure prostate cancer. There are several types of hormone therapy used to treat prostate cancer. Possible side effects are generally related to changing levels of hormones in the body. Hormone therapy may be used in several situations:

- if the patient is not able to have surgery or radiation or can't be cured by these treatments because the cancer has already spread beyond the prostate gland
- if the cancer remains or comes back after treatment with surgery or radiation therapy
- as an addition to radiation therapy as initial treatment if the patient is at high risk for cancer recurrence
- before surgery or radiation to try and shrink the cancer to make other treatments more effective

Chemotherapy

Chemotherapy is sometimes used if prostate cancer has spread outside of the prostate gland and hormone therapy isn't working. It is not recommended as a treatment if the patient has early prostate cancer. Chemotherapy uses anti-cancer drugs injected into a vein or given by mouth. These drugs enter the bloodstream and go throughout the body, making this treatment potentially useful for cancers that have spread (metastasized) to distant organs. Like hormone therapy, chemotherapy is unlikely to result in a cure. This treatment is not expected to

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destroy all the cancer cells, but it may slow the cancer's growth and reduce symptoms, resulting in a better quality of life. Chemotherapy drugs work by attacking cells that are dividing quickly, which is why they work against cancer cells. But other cells in the body, such as those in the bone marrow, the lining of the mouth and intestines, and the hair follicles, also divide quickly. These cells are also likely to be affected by chemotherapy, which can lead to side effects. The side effects of chemotherapy depend on the type and dose of drugs given and the length of time they are taken. These side effects may include:

- hair loss
- mouth sores
- loss of appetite
- nausea and vomiting
- lowered resistance to infection (due to low white blood cell counts)
- easy bruising or bleeding (due to low blood platelets)
- fatigue (due to low red blood cells)

In addition, each chemotherapy drug may have its own unique side effects. The side effects of chemotherapy are usually short-term and go away once treatment is finished.

Adapted from: www.cancer.org the website of the American Cancer Society

These Information Sheets are designed to provide a brief overview of various medical conditions. Referring to the Information Sheets may help you communicate more effectively with other members of the Primary Care Team. The Information Sheets are by no means an exhaustive description of the disorders. If you need additional information, please engage in a more detailed search. Don't forget to consult with other members of the Primary Care Team. They are an invaluable source of information!