



## Grading of Prostate Cancer

John L. Zeller; Cassio Lynn; Richard M. Glass

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# Grading of Prostate Cancer

**P**rostate cancer (an abnormal, uncontrolled growth of cells originating in the prostate gland) is the most common cancer among American men. The October 3, 2007, issue of *JAMA* includes an article on the importance of grading prostate cancer and the implications regarding therapy options and possible recurrence.

## DIAGNOSTIC TESTING FOR PROSTATE CANCER

Doctors and medical groups do not agree on when men should be **screened** (routinely tested) for prostate cancer because of controversy about the benefits versus risks of early treatment. The most often used tests include

- **Digital rectal examination (DRE).** A doctor feels the prostate gland by passing a gloved finger into the patient's rectum to examine the gland for hard or lumpy areas that may represent an abnormality.
- **Prostate-specific antigen (PSA) test.** A blood test is performed to measure levels of this chemical substance. A positive test result (usually considered to be more than 4 nanograms per milliliter) may be an indicator of cancer but it is important to understand that the test is not perfect. Many men with mildly elevated PSA levels can have benign prostate enlargement, which is a normal part of aging; whereas some men with prostate cancer may have normal levels of PSA.
- **Biopsy** (obtaining tissue samples) of the prostate. To do a biopsy, your doctor inserts an ultrasound probe into the rectum. Guided by images from the probe, the physician can identify suspicious areas of the prostate gland. Using a fine hollow needle, he or she can remove thin sections of glandular tissue for microscopic analysis.

## GRADING OF PROSTATE CANCER

When a biopsy confirms the presence of cancer, the next step, called **grading**, is to determine how aggressive the cancer is. The most common cancer grading scale runs from 1 to 5, with 1 being the least aggressive form (tissue cells look normal). Known as the **Gleason** scores, these numbers (which refer to the appearance and activity of cancer cells) may be helpful in determining which treatment option is best. The Gleason score adds the grades of the 2 most prevalent patterns of cells. Therefore, scores may range from 2 (nonaggressive cancer) to 10 (very aggressive cancer). The eventual spread of the tumor is dependent on the aggressive nature of the prostate cancer cells.

## TREATMENT OPTIONS

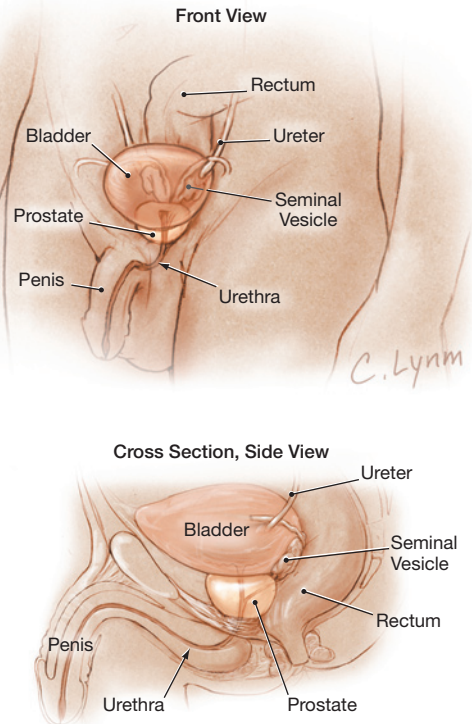
Decisions regarding treatment depend on a number of factors, including age, life expectancy, overall health status, PSA level, Gleason score, and the growth and spread of the tumor. Treatment options should be carefully discussed with your doctor and range from watchful waiting for signs and symptoms with regular checkups to radiation treatment or surgery. **Radical prostatectomy** (surgical removal of the prostate gland) and radiation treatment can cure prostate cancer but can result in problems regarding **impotency** (difficulty having an erection) or **incontinence** (problem with control of urination).

John L. Zeller, MD, PhD, Writer

Cassio Lynn, MA, Illustrator

Richard M. Glass, MD, Editor

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- American Cancer Society (ACS)  
[www.cancer.org](http://www.cancer.org)
- American Association of Clinical Urologists (AACU)  
[www.aacuweb.org](http://www.aacuweb.org)

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To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at [www.jama.com](http://www.jama.com). Many are available in English and Spanish. A Patient Page on prostate cancer was published in the November 15, 2006, issue of *JAMA*.

Sources: American Cancer Society, American Association of Clinical Urologists

