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Patient information: Prostate cancer treatment; stage I to III cancer (Beyond the Basics)

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INTRODUCTION

Prostate cancer is a cancer of the prostate gland, an organ that forms a ring around the urethra, near its connection to the bladder ([figure 1](#)). The urethra is the tube that carries urine from the bladder to the outside of the body.

Over the last 20 years, more men are being diagnosed with prostate cancer at an early stage, when the cancer is highly curable. A separate article discusses screening tests for prostate cancer. (See "[Patient information: Prostate cancer screening \(Beyond the Basics\)](#)".)

This article discusses symptoms, diagnosis, and treatment of stage I to III prostate cancer. Treatment of advanced prostate cancer is discussed separately. (See "[Patient information: Treatment for advanced prostate cancer \(Beyond the Basics\)](#)".) More detailed information about early-stage prostate cancer is available by subscription. (See "[Initial approach to low-risk clinically localized prostate cancer](#)".)

PROSTATE CANCER SYMPTOMS

Prostate cancer is usually found before symptoms develop. However, early symptoms of prostate cancer may include:

- A need to rush to the bathroom frequently or a slow urine stream. These symptoms are usually related to an enlarged prostate (called BPH), not prostate cancer. (See "[Patient information: Benign prostatic hyperplasia \(BPH\) \(Beyond the Basics\)](#)".)
- Erectile dysfunction (difficulty having an erection). Erectile dysfunction is more commonly caused by problems other than prostate cancer. (See "[Patient information: Sexual problems in men \(Beyond the Basics\)](#)".)
- Blood in the urine or semen

PROSTATE CANCER DIAGNOSIS

Your doctor or nurse may suspect that you have prostate cancer if you have an abnormal blood test (PSA, or prostate-specific antigen) or an abnormal rectal examination. To be certain about the diagnosis, you will need to have a prostate biopsy. (See "[Clinical presentation and diagnosis of prostate cancer](#)".)

Prostate biopsy — Prostate biopsy is usually performed in a doctor's office. You will be given a course of antibiotics to take before and after the biopsy to reduce the risk of infection from the procedure.

The biopsy is done after you are given local anesthesia (a shot or gel in the rectum). Most men feel mild to moderate pain during the procedure. The entire procedure usually takes about 15 minutes.

After the procedure, you will probably feel soreness in your rectum or the area around the rectum (called the perineum). You may have some bleeding from your rectum, in your urine (for several days), or in your semen (for up to several months).

The tissue taken during the biopsy will be examined by a pathologist using a microscope. The results are usually available within one week.

Gleason grade — If cancer is found in the prostate biopsy, the amount of cancer and aggressiveness of the tumor will be determined. The Gleason grade depends on how the tumor looks under the microscope. The higher the Gleason grade, the more likely the tumor is to behave aggressively (grow faster).

Prostate cancer stage — Once prostate cancer is diagnosed, the next step is to determine its stage. Staging is a system used to describe the size, aggressiveness, and spread of a cancer. A cancer's stage helps to guide treatment and can help predict the chance of curing the cancer.

A prostate cancer's stage is based upon:

- How far the tumor extends in the prostate and surrounding tissue
- Possible spread of the cancer to the nearby lymph nodes
- Signs of cancer in other organs (liver, bone)

In addition, the PSA (prostate-specific antigen) level and the Gleason grade are used to gauge how aggressive the tumor is and what treatment options are available.

In general, lower-stage cancers are less aggressive and less likely to come back after treatment compared with higher-stage cancers. Stage I and II prostate cancer are referred to as localized prostate cancer, stage III is locally advanced, and stage IV is referred to as advanced or metastatic prostate cancer.

Further testing — Other tests, such as MRI, ultrasound, or bone scan, may be done before treatment begins to determine whether the cancer has spread beyond the prostate.

STAGE I TO II (LOCALIZED) PROSTATE CANCER TREATMENT

Localized prostate cancer is cancer that has not spread to the lymph nodes or distant organs. There are three standard ways to treat localized prostate cancer:

- Surgery to remove the prostate gland (called radical prostatectomy)
- Radiation therapy (external beam or brachytherapy), sometimes combined with androgen deprivation therapy
- Active surveillance, also called "watch and wait"

The best treatment depends upon your age and health, your preferences, and the stage of your cancer. (See "[Which treatment is right for me?](#)" below.)

