

# The Medical Minute: The basics of prostate cancer screening

September 1 2010, By Jay D. Raman

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Prostate cancer is a significant public health concern and cause of morbidity among American men. It is the most commonly diagnosed cancer in the United States (excluding skin cancers) and is second only to lung cancer as a contributor to cancer deaths in American men.

In 2010, it is estimated that nearly 218,000 new cases will be diagnosed and more than 32,000 men will die of prostate cancer. The lifetime probability of developing prostate cancer is one in six for American males. Screening can detect prostate cancer in its earliest stages when it is asymptomatic, or when signs and symptoms aren't present, and has the potential to decrease both morbidity and mortality.

A male reproductive gland located in the pelvis, the prostate lies just below the bladder (the organ that collects and empties urine) and in front of the rectum (the lower part of the intestine). It is the size of a walnut and produces fluid that makes up part of the semen.

The goal of screening is to appropriately identify early stage prostate cancer that may potentially be curable. Signs and symptoms of prostate cancer typically occur later in the disease process, and include bone and back pain as well as weight loss. [Screening tests](#) used for the detection of prostate cancer include digital rectal examination (DRE) and a prostate-specific antigen (PSA) test. The DRE test involves a doctor inserting a lubricated, gloved finger into the rectum to feel the prostate and assess for lumps, smoothness, swelling and tenderness. PSA is a substance made mostly in the prostate. It may be found in an increased amount in

the blood of men with prostate cancer. The [PSA test](#) measures the level of PSA in the blood. Of note, the [PSA level](#) also may be high in men with non-cancerous conditions of the prostate, including infection, inflammation or [benign prostatic hyperplasia](#).

Both DRE and PSA can detect asymptomatic prostate cancer before it presents clinically. The incidence of metastatic disease appears to decrease over time in settings where screening occurs. However, there is some controversy surrounding prostate cancer screening. This is because screening may simply involve detecting cancers that never would have caused clinical morbidity or mortality. Also, there is no direct evidence to show early detection reduces mortality.

The American Cancer Society screening guidelines for prostate cancer recommends that PSA testing and DRE be offered annually beginning at age 50. Men at high risk (African-American men and men with a strong family history of one or more first-degree relatives diagnosed with prostate cancer at an early age) should begin testing at age 45. For men with average or high risk, information is available from physicians regarding the benefits and limitations of early detection and treatment of [prostate cancer](#).

**More information:** For more information, visit the health information library online at [www.pennstatehershey.org/healthinfo](http://www.pennstatehershey.org/healthinfo)

Provided by Pennsylvania State University

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