Prostate Cancer Screening

Smarter screening for prostate cancer requires a patient’s knowledge about this condition and active involvement in the decision-making process.

What Is Prostate Cancer Screening?
Cancer screening is the process of searching for a cancer before the disease becomes too advanced. Many prostate cancers grow slowly and never become life threatening. One problem with screening for cancers is that there is no sure way to know if the cancer that is found is one that will not cause illness or if it is a cancer that will be life threatening. Some experts question whether truly slow-growing prostate cancers should be called “cancer” at all. Some prostate cancers found by screening are aggressive, have the ability to spread, and can lead to death. These are the forms of prostate cancer that screening aims to discover.

Prostate cancer screening usually involves a blood test for prostate-specific antigen (PSA), a protein made in the prostate gland, levels of which can become elevated if cancer is present. PSA levels also can be elevated when cancer is not present, such as when there is an infection of the prostate or a benign growth or the prostate has been manipulated with instruments (such as during a biopsy). A digital rectal examination is often also done when a PSA test is performed. This is an examination of the prostate gland performed by insertion of a clinician’s gloved finger into the patient’s rectum to check for lumps or irregularities. These screening tests do not distinguish between the high-risk and low-risk types of prostate cancer. Taking tissue samples from the prostate (biopsy) can provide more information about how dangerous the tumor may be.

Benefits and Risks of Screening
Not everyone agrees that screening for prostate cancer should be done. When a cancer is found, its treatment may require removal or radiation treatment of the prostate gland. Both surgery and radiation treatment can have complications and side effects. Another alternative is active surveillance—when prostate cancer is found, instead of removal, it is carefully watched to see if it grows or becomes aggressive. Because it is not possible to know which prostate cancers are dangerous, some patients undergo these treatments when they do not need them. However, if no screening is done, there is a risk of missing high-risk prostate cancers that could be treated before they become life threatening. Also, some high-risk cancers will cause death regardless of early detection and treatment. Many scientific studies have been done, but it is still unclear if screening for prostate cancer is good for average-risk men. Patients should educate themselves about these facts and discuss the options with their doctor.

Recommendations for Screening
Most expert guidelines recommend shared decision making between patients and physicians. The decision should follow a discussion about the uncertainties, risks, and potential benefits of screening. Screening without first having a meaningful discussion with a clinician is discouraged (Figure). Testing PSA in any man with less than a 10-year life expectancy is not recommended. Screening after age 70 years should be rare. Overall health and other existing diseases need to be considered when making screening decisions and are more important than age alone. Once screening is done, subsequent screening decisions should take into account the results of the initial PSA test. Prostate cancer risk calculators like the publicly available Prostate Cancer Prevention Trial Prostate Cancer Risk Calculator can help guide decisions. In general, a patient’s health and preferences should be discussed at each future screening examination.

When should I discuss prostate cancer screening with my doctor?
Routine prostate cancer screening is not recommended. The decision to undergo prostate cancer screening is based on your prostate cancer risk and your age.

![Prostate Cancer Risk Calculator](http://www.cancer.org/cancer/prostatecancer/moreinformation/prostatecancerearlydetection/prostate-cancer-early-detection-acs-recommendations)

Listen to Jon Tilburt, MD, from the Mayo Clinic explain prostate cancer screening in a podcast available at [jama.jamanetwork.com/multimedia.aspx#AuthorInterviews](https://jama.jamanetwork.com/multimedia.aspx#AuthorInterviews).

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