

# Prostate Cancer Screening



A Decision Guide





This booklet was developed by the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC).

# Is screening right for you?

**The decision is yours.**

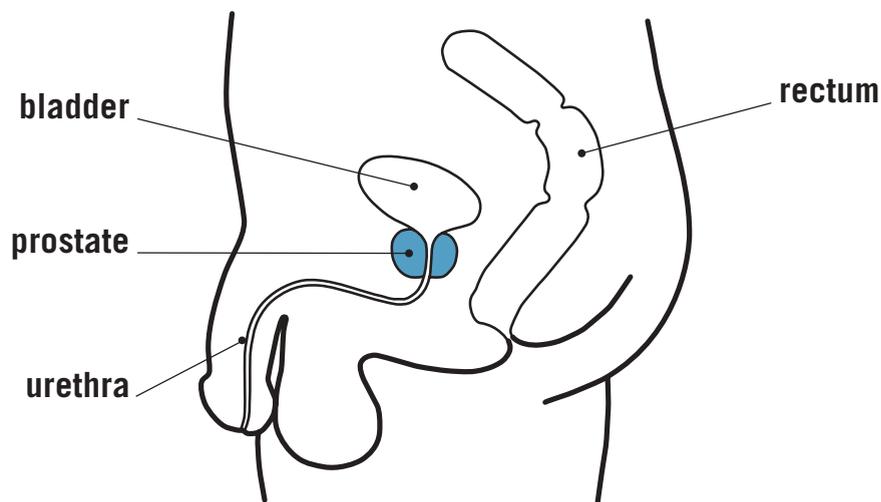
**Some medical experts believe all men should be offered regular screening tests for prostate cancer. Other medical experts do not recommend screening.**



**To help you decide,  
let's begin with the basics.**

## What is the prostate?

The prostate is a walnut-sized gland that only men have. It is part of the reproductive system that makes the fluid that carries sperm. As you can see in the picture below, the prostate is located in front of the rectum and just below the bladder. The urethra (the tube that carries urine from the bladder to outside the body) runs through the center of the prostate. As men age, the prostate tends to increase in size. This can cause the urethra to narrow and decrease urine flow.



## **What is prostate cancer?**

Prostate cancer is made up of cells that do not grow normally. The cells divide and create new cells that the body does not need, forming a mass of tissue called a tumor. These abnormal cells sometimes spread to other parts of the body, multiply, and cause death.

## **What causes prostate cancer?**

As with many types of cancers, medical experts do not know what causes prostate cancer. They are studying several possible causes.

## **Can prostate cancer be prevented?**

Medical experts do not know how to prevent prostate cancer. But they are studying many factors. They do know that not smoking, maintaining a healthy diet, staying physically active, and seeing your doctor regularly contribute to overall good health.

**How common is prostate cancer?**

For the general population, a man in his lifetime has about a:

- 16 percent chance (1 in 6) of being diagnosed with prostate cancer.
- 3 percent chance (1 in 33) of dying from prostate cancer.

The older you are, the greater the risk for getting and being diagnosed with prostate cancer. See the chart below.

**Risk of Being Diagnosed with Prostate Cancer by Age**

Age 45	.....1 in 2,500
Age 50	.....1 in 476
Age 55	.....1 in 120
Age 60	.....1 in 43
Age 65	.....1 in 21
Age 70	.....1 in 13
Age 75	.....1 in 9
Ever	.....1 in 6

## Who is at increased risk for prostate cancer?

While all men are at risk for prostate cancer, some factors increase risk:

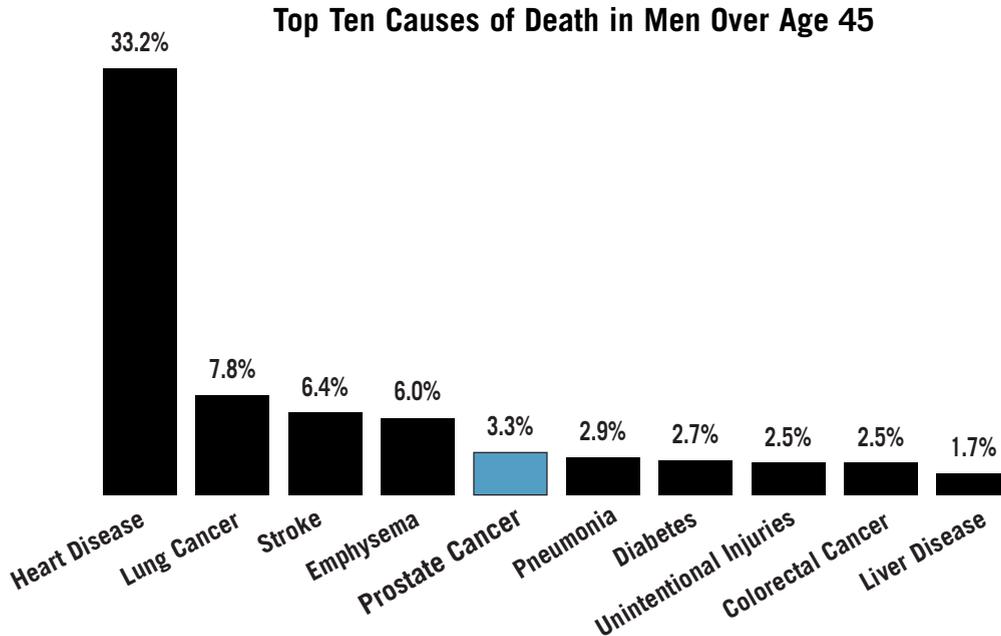
- **Family history.** Men with a father or brother who has had prostate cancer are at greater risk for developing it themselves.
- **Race.** Prostate cancer is more common in some racial and ethnic groups than in others, but medical experts do not know why. Prostate cancer is more common in African-American men than in white men. It is less common in Hispanic, Asian, Pacific Islander, and Native American men than in white men.

### Is prostate cancer serious?

Some prostate cancers become a serious threat to health by growing quickly, spreading beyond the prostate gland to other parts of the body, and causing death. Yet other prostate cancers grow slowly and never become a serious threat to health or affect how long a man lives. Doctors can't always be sure what type of cancer is present in your particular case.

Among the leading causes of cancer death in men, prostate cancer is second, behind lung cancer. When compared with all causes of death in men over age 45, prostate cancer ranks fifth.

6



## **What are the symptoms of prostate cancer?**

Many men with prostate cancer often have no symptoms. If symptoms appear, they can include:

- blood in the urine;
- the need to urinate frequently, especially at night;
- weak or interrupted urine flow;
- pain or burning feeling while urinating;
- the inability to urinate;
- constant pain in the lower back, pelvis, or upper thighs.

If you have any of these symptoms, see your doctor as soon as possible. Keep in mind that these symptoms are also caused by other prostate problems that are not cancer, such as an infection or an enlarged prostate.

## What does “screening” mean?

Screening means looking for signs of disease in people who have no symptoms. So screening for prostate cancer is looking for early-stage disease when treatment may be more effective. The main screening tools for prostate cancer are the digital rectal examination (DRE) and the prostate specific antigen (PSA) test. The DRE and PSA test cannot tell if you have cancer; they can only suggest the need for further tests.

## What is the DRE?

The DRE or digital (finger) rectal examination is a quick exam for checking the health of the prostate. For this test, the doctor inserts a gloved and lubricated finger into the rectum. This allows the doctor to feel the back portion of the prostate for size and any irregular or abnormally firm areas.



**“I want to know more so I can ask my  
doctor questions.”**

## What is the PSA test?

PSA stands for “prostate specific antigen.” PSA is a substance produced by cells from the prostate gland and released into the blood. The PSA test measures the PSA level in the blood. A small amount of blood is drawn from the arm. The doctor checks the blood to see if the PSA level is normal. The doctor may also use this test to check for any increase in your PSA level compared to your last PSA test.

As a rule, the higher the PSA level in the blood, the more likely a prostate problem is present. But many factors, such as age and race, can affect PSA levels. Some prostate glands produce more PSA than others. PSA levels can also be affected by:

- certain medical procedures;
- an enlarged prostate;
- a prostate infection.

Since many factors can affect PSA levels, your doctor is the best person to interpret your PSA test results.

## How accurate are the screening tests?

No test is right all the time and that is true of the PSA test and DRE. The PSA test is better at suggesting that small cancers are present, especially those toward the front or sides of the prostate gland, or deep within it. But the DRE can sometimes help suggest cancers in men with normal PSA levels. That is why both the PSA test and the DRE are usually performed.

If **100** men over age 50 take the PSA test:

- **85** will have a **normal PSA** (though a small number of these men will have a cancer that was missed by the PSA test).
- **15** will have a **higher than normal PSA** and require further tests.

After further testing, results will show:

- **12** do not have prostate cancer.
- **3** have prostate cancer.

## **What do medical experts say about screening?**

Medical experts agree that every man needs balanced information on the pros and cons of prostate cancer screening to help him make an informed decision. Balanced information is important because medical experts disagree about whether men should be screened regularly for prostate cancer.

Medical experts who encourage regular screening believe current scientific evidence shows that finding and treating prostate cancer early, when treatment might be more effective, may save lives. They recommend that all men who have a life expectancy of at least 10 years should be offered the PSA test and DRE annually beginning at age 50. They also recommend offering screening tests earlier to African-American men, and men who have a father or brother with prostate cancer.

Medical experts who do not recommend regular screening want convincing evidence that finding early-stage prostate cancer, and treating it, saves lives. They believe some of these cancers may never affect a man's health and treating them could cause temporary or long-lasting side effects like impotence (inability to keep an erection) and incontinence (inability to control the urine flow, resulting in leakage or dribbling). Since they believe it is unclear if the potential benefits of screening outweigh the known side effects of treatment, they recommend that all men be given information on the pros and cons of screening before making their own screening decision.

## **When will medical experts know more?**

Medical experts are working together on major research studies to get answers. These studies are called clinical trials. They will help determine whether a man who gets screened regularly is less likely to die of prostate cancer than a man who does not get screened. Clinical trials involve thousands of male volunteers and take a long time. Results are expected in five to 10 years. They should help experts know if screening for prostate cancer saves lives.



**“I want all the facts before I get  
a screening test.”**

## Should I be screened for prostate cancer?

The decision is up to you and your doctor. Know your risk factors for prostate cancer and the pros and cons of screening:

### Pros

*“I will take the screening tests because they will give me peace of mind. It could mean finding a problem, taking further tests, and treating a potentially serious prostate cancer. And since there’s no way to tell if the prostate cancer will cause problems in the future, I want it found early when treatments might be more effective.”*

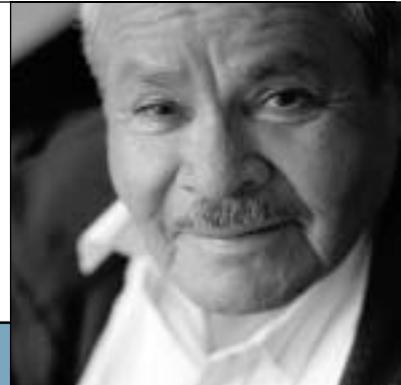
13

### Cons

*“I will not take the screening tests until medical experts agree that finding and treating prostate cancer in its early stages reduce the chance of dying from it. Screening tests could lead to further tests and treatment of a prostate cancer that may never cause problems. And treatment can have serious side effects.”*

---

**“There is more to screening than  
I realized.”**



## **What if the results of your screening tests indicate that you might need further testing?**

*Do not panic.* Most men who go for further testing do not have cancer. If your PSA test or DRE suggests a problem, your doctor most likely will refer you to a urologist (a doctor who has special training in prostate-related problems). Additional testing is necessary to determine if the problem is cancer or something else.

The urologist may perform a transrectal ultrasound — a small probe inserted into the rectum that bounces sound waves off the prostate, producing a video image. Transrectal ultrasound does not provide enough specific information to make it a good screening tool by itself, but some doctors find it useful as a follow up to a suspicious DRE or PSA test.

If the urologist suspects cancer, tiny samples of the prostate may be removed with a needle. This is called a biopsy. A biopsy is usually performed in the urologist's office. The samples are examined under a microscope to determine if cancer cells are present.

## What happens if prostate cancer is found?

No two men with prostate cancer are the same. Many factors affect the decision whether or not to treat the disease: the patient's age, whether the cancer has spread, the presence of other medical conditions, and the patient's overall health.

When prostate cancer has been found in its early stages and has not spread beyond the prostate, a doctor and his patient may decide upon:

- watchful waiting — monitoring the patient's prostate cancer by performing the PSA test and DRE regularly, and treating it only if and when the prostate cancer causes symptoms or shows signs of growing;
- surgery (radical prostatectomy) — removing the prostate;
- external radiation therapy — destroying cancer cells by directing radiation at the prostate;
- internal radiation therapy (brachytherapy) — surgically placing small radioactive pellets inside or near the cancer to destroy cancer cells;
- hormone therapy — giving certain hormones to keep prostate cancer cells from growing;
- cryotherapy — placing a special probe inside or near the prostate cancer to freeze and destroy the cancer cells.

More advanced prostate cancers that have spread beyond the prostate can be complex to treat and may be incurable. Patients should discuss with their doctor the best course of action.

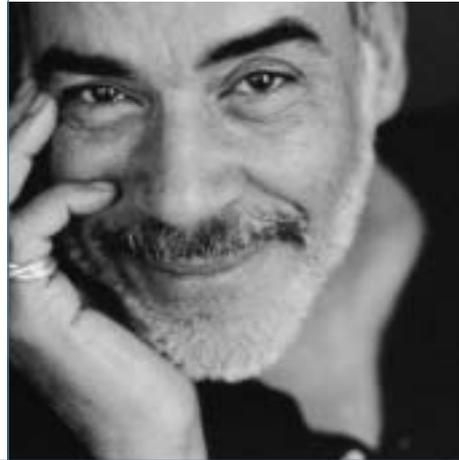
### **Do these treatments have side effects?**

Side effects from prostate cancer treatment depend mainly on the type of treatment, the patient's age, and his overall health. Men can experience pain, discomfort, and other mild to severe side effects that may be temporary or may last a long time. Two important side effects are impotence and incontinence. When a doctor explains the treatment options, he or she can discuss how mild or severe side effects might be, and how long they might last. Also, a doctor may be able to perform surgery or prescribe drugs to relieve some side effects.



**“It’s good to know what might happen  
after screening.”**

**“The right decision is the one that is right for me.”**



Thank you for reading this booklet. We hope it helped you understand the prostate, prostate cancer, and the different opinions on screening.

To decide whether screening is right for you, discuss the pros and cons of screening with your doctor and the people important in your life. For more information on prostate cancer screening, testing, treatments, and studies, talk with a cancer information specialist at 1-800-4-CANCER (1-800-422-6237), or visit the Web site: [www.healthfinder.gov](http://www.healthfinder.gov) and type in the words “prostate cancer.”

