Prostate Cancer a Consumer’s Guide

Each year nearly 250,000 men will be diagnosed with prostate cancer. The disease will cause nearly 40,000 deaths. Most men with prostate cancer can be helped. This article will review the function of the prostate gland, the causes of prostate cancer and how the diagnosis of prostate cancer is made.

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 including diet, hereditary factors, and life-style behaviors like smoking.

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 prostate cancer. See the chart below.

<table>
<thead>
<tr>
<th>Age</th>
<th>Risk of Being Diagnosed with Prostate Cancer by Age</th>
</tr>
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<tbody>
<tr>
<td>45</td>
<td>1 in 2,500</td>
</tr>
<tr>
<td>50</td>
<td>1 in 476</td>
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<tr>
<td>55</td>
<td>1 in 120</td>
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<tr>
<td>60</td>
<td>1 in 43</td>
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<td>65</td>
<td>1 in 21</td>
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<td>70</td>
<td>1 in 13</td>
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<tr>
<td>75</td>
<td>1 in 9</td>
</tr>
<tr>
<td>Ever</td>
<td>1 in 6</td>
</tr>
</tbody>
</table>

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.

What are the symptoms of prostate cancer?
Most men with prostate cancer 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.

**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 due to non-malignant causes
- a prostate infection.

Most urologists encourage regular screening and 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 after age 40 to African-American men, and men who have a father or brother with prostate cancer.

**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.

Only when the prostate biopsy is positive is the diagnosis of prostate cancer confirmed. In the next issue I will discuss the treatment options for prostate cancer. Until then, if you are over age 50 get a prostate exam and a PSA blood test.

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