All men should understand that prostate cancer is common, and every man should be screened based on his own personal risk factors. Fortunately, advances in treatment options are yielding better outcomes than ever before.

Ask any man about his greatest fears, and prostate cancer might well be among them. But a little knowledge can be a powerful tool to raise awareness and demystify the disease. In the United States, prostate cancer is the most common cancer in men other than skin cancer. The good news is that prostate cancer usually grows slowly and stays in the prostate, and most men with prostate cancer don’t die of it. But the disease can be fatal, so all men should be aware of the symptoms of prostate cancer and possible reasons they may need testing.

A Unique Location

The prostate gland, about as large as a walnut, is located below the bladder and in front of the rectum, and surrounds part of the urethra. Because of its unique location, the prostate may cause symptoms as men age. Says Ihor Sawczuk, MD, Chairman of the Department of Urology and Co-Chief of the Division of Urologic Oncology at HUMC’s John Theurer Cancer Center, “Part of the problem with the prostate is that as we get older the prostate can enlarge, and by enlarging it can cause compression on the urethra and make it difficult to urinate.” An enlarged prostate is known as benign prostatic hyperplasia, or BPH. This condition causes such inconvenient symptoms as the need to urinate more often, especially at night; difficulty urinating; weak flow; or an urgent need to urinate.

BPH is not prostate cancer and does not predispose a man to prostate cancer; emphasizes Glen Gejerman, MD, Medical Director of the Department of Radiation Oncology at the John Theurer Cancer Center, and Co-Chief of the Division of Urologic Oncology. “There are many men who have BPH who never develop prostate cancer, and there are many men who have prostate cancer who have no BPH. They really are separate entities.” However, it may be important to investigate BPH because the symptoms can be similar to those of prostate cancer. Says Sawczuk, “I think men, many times, will put these symptoms aside because they think that’s part of the aging process, but if these symptoms continue, some men will worry whether there’s something else going on; is there potentially a prostate cancer? And that’s the time—or actually even before that time—that they should get tested.”

In addition to the urinary symptoms mentioned above, prostate cancer (especially more severe cases) may cause any of the following symptoms: pain or burning during urination; blood in the urine or semen; pain with ejaculation; persistent pain in the back, hips, or pelvic; bone pain; or swelling in the legs. Any one of these signs is an indication you should call your doctor.

Testing is Key

Testing is intended to detect disease at an early stage, when it is potentially more treatable. Although experts sometimes debate about cancer testing, most physicians do advocate testing with the prostate-specific antigen or PSA test. This test measures a substance in the blood that, when elevated, can point to a prostate cancer. Says Sawczuk, “Prostate cancers usually do not give symptoms in the early stages. You don’t know you have a prostate cancer unless you have a blood test, and that blood test is called a PSA. That’s really the way you can detect if there’s an abnormality and potentially a cancer in your prostate.” A rise in PSA could also be due to BPH, an infection, or other non-cancer causes. That is why an elevated PSA, says Gejerman, “requires investigation; it does not require alarm.”

There are several risk factors for prostate cancer, including age (especially after 65 years), family history of the disease, race (black men have a higher risk than white men), and also a high-fat diet, obesity, or heavy alcohol consumption. Along with prostate cancer symptoms, these would be indications to contact your doctor to discuss whether and when to be tested.

Sawczuk explains that it’s not just the PSA number itself, but the change in the number over time that will best diagnose a cancer. “If you have, for example, a family history of prostate cancer, you should be tested,” he says. “You should have a PSA test done somewhere in your life—most of the time it’s in your late forties or early fifties—to have a baseline established, because we know that changes in PSA can indicate prostate cancers. If, for example, your PSA at age 50 was less than 1 and when you’re 54 your PSA came back 4, that potentially could be a problem; and you have something to compare it to, to determine whether you go to the next step, which is a biopsy.”

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For men with BPH, treatment is available with chemoprevention: the use of drugs to shrink the prostate. Clinical studies have found that these drugs not only alleviate the symptoms of an enlarged prostate but also prevent the formation of prostate cancer in 15 to 20 percent of men. “Fifteen to 20 percent is not a small number,” Sawczuk says, “especially if you have a family history of prostate cancer.”

For men who do have nodules. There are men who have differences in texture on the prostate, and what you’re looking for is not just enlargement; you’re looking for any kind of abnormalities, asymmetry, any nodules.” Here too, if any problems are found, the next step is a biopsy.

Prevention

Some of the risk factors for prostate cancer can’t be changed. Obviously, says Sawczuk, “genetics you can’t influence, that’s the way you were born.” Likewise, you can’t change your sex or race. But he does recommend avoiding high-fat diets, getting about 15 minutes of sun every few days (not too much!) to boost your vitamin D levels, and taking antioxidants to help strengthen your immune system. Not all antioxidants have shown a benefit in medical studies, but those that are believed to be effective are soy products, lycopene, and pomegranate juice.
How Serious Is It?
The severity of prostate cancer must be categorized before treatments are discussed. Says Gejerman, “When a man is diagnosed with prostate cancer, what we try to do is assign a risk category to let the patient know what the risk of disease progression is. That’s important for several reasons. Number one, it’s very helpful to understand whether we’re dealing with low-risk or high-risk disease; and number two, it helps us choose treatment options.” Risk category is determined by the PSA level, the stage of disease (based on physical examination), and what is called the Gleason score, a measure of disease aggressiveness (based on biopsy). The aim is to determine whether the man has localized disease, which is confined to the prostate, or advanced disease, which is very aggressive or has spread beyond the prostate.

Many Possible Treatments
After diagnosis, there are typically four options. First is “watchful waiting” or “active surveillance,” which is not actually a treatment but a type of monitoring. This is an option because many prostate cancers are idle, and would not progress even if left alone for 10 or 15 years. Active surveillance is sometimes the best choice for localized disease, which is the most common type, or for older patients. Surveillance entails periodic PSA tests and, at some point, a repeat biopsy to see whether any changes have occurred in the prostate. Says Sawczuk, “There are many men who fit these criteria and can live a normal life without having the prostate cancer reduce their life expectancy.”

Another option is prostatectomy, or surgical removal of the prostate gland. This is sometimes a good option for younger patients, less than 70 years old. “We use 70 as a rough cut-off point for surgery, because if you look at the 15-year cure rate, whether one has surgery or radiation, they’re essentially identical,” says Robert Alter, MD, Co-Chief of the Division of Genitourinary Oncology at the John Theurer Cancer Center. New technology in this area is allowing the use of robotics to remove the prostate with only a small incision; this allows a man to return to normal activities much sooner than if he had a traditional surgical procedure. There is about a 50 percent risk of erectile dysfunction (E.D.) after surgery, and a low chance of urinary incontinence.

A third option is radiation therapy to kill the cancer cells. If a patient is concerned about the possible quality-of-life issues associated with surgery, says Gejerman, “they may opt for a nonsurgical approach, which would be radiation therapy.” This treatment can be delivered from outside the body with an external beam, or from inside the body through the implantation of radioactive seeds directly at the location of the cancer. Radiation therapy does not cause incontinence, although E.D. can occur in about 30 percent of men. New developments are occurring all the time in this area, says Gejerman, and new delivery systems for radiation therapy have made it much safer and produce far fewer side effects. “With radiation therapy, there are major advances in imaging techniques and technology where we’re able to pinpoint the radiation with image-guided radiotherapy,” says Gejerman. In this way, the tumor can be treated precisely without involving the surrounding tissue. At HUMC, one of the newest developments in radiation therapy is about to be unveiled, explains Sawczuk: “Here at Hackensack University Medical Center, we’re going to be installing something called TrueBeam, a new, sophisticated way of delivering precise radiation beams to the prostate and detecting if there’s motion or changes in position so as not to harm additional structures there.”

Other options for treatment include cryosurgery (freezing all or part of the prostate to kill cancerous areas); high-intensity focused ultrasound; and hormone therapy, which involves the use of drugs or other hormones to suppress male hormones, especially testosterone, to stop the cancer from growing. “Most prostate cancers are hormonally sensitive,” says Gejerman, so by altering the hormonal environment by suppressing testosterone, you can often get a good response.” Hormone therapy is typically used in combination with other treatments, or in elderly men who are not able to tolerate any other procedure. Often it is used after the disease recurs despite radiation or surgery. Combination treatments with hormone therapy are showing promising results, however, says Alter. “There have been new data presented at the most recent national oncology meeting.” Alter says, “revealing that adding radiation therapy to hormonal therapy improves overall survival in men with locally advanced prostate cancer. This resulted in an almost 25 percent reduction in the risk of death from prostate cancer.” Chemotherapy is reserved for hormone-resistant prostate cancers. In addition, “Chemotherapy is currently being investigated as an additive therapy after surgery, though no conclusions have been made as of yet,” says Alter.

The choice of treatment will depend on a risk-benefit assessment with your doctor. Sawczuk summarizes: “It comes down to what’s called a risk assessment. First you define the risk potential of the prostate cancer; it’s classified as low, medium, and high risk. There are men who have localized disease with low-risk prostate cancer who are candidates for prostatectomy because essentially they’ll be cured of their prostate cancer. You remove the prostate and the chance of the cancer coming back after 15 years is less than two percent. So the treatment is based on risk characteristics, the age of the patient, and the patient’s overall health and comorbid factors.”

Be Aware
Awareness is the key to mitigating your risk for the development or progression of prostate cancer. Sawczuk believes all men must “understand that prostate cancer is a disease that’s quite common in the United States; it affects a large population. Men should be aware that PSA testing is available, and they should have discussions with their physicians about when they should be tested.” Adds Gejerman, “If you catch it early, you’ve got lots of options. Major technological advances are happening so rapidly that the vast majority of patients, if they are diagnosed early, will survive the disease and, while there are side effects, these technological advances can mitigate the side effects.”