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## **INFORMATION PAPER #1**

### **PROSTATE CANCER OVERVIEW**

Prostate cancer is the most common type of cancer, and the second leading cause of cancer deaths in American men (the first is lung cancer). It is estimated that one of every six American men will develop prostate cancer in their lifetime. Although the statistics are alarming, it is important to emphasize that prostate cancer is *very treatable* in its early stages. Yet early prostate cancer has *no symptoms*. Symptoms usually do not develop until the cancer begins to spread beyond the prostate.

The cause of prostate cancer is not known, however, the risk of developing it greatly increases with age. It rarely occurs in men younger than 50. The average prostate cancer patient is 72. African American men have a 30% higher rate of prostate cancer than Caucasian men do, but the reason for this is not known. If you have a family history of prostate cancer, your risk is also higher than normal.

### **WHAT IS THE PROSTATE?**

Only men have a prostate. It is a walnut-sized gland located above the rectum and below the bladder. The urethra is the tube that carries urine from the bladder out through the penis. The upper part of the urethra passes through the middle of the prostate. The function of the prostate is to produce part of the seminal fluid that helps carry the sperm. This fluid nourishes the sperm and makes the woman's vaginal canal less acidic, thus increasing the likelihood of conception.

### **WHAT IS CANCER?**

Cancer is the growth of abnormal cells. (Prostate cancer is the growth of abnormal cells in the prostate.) Normally, cells divide and reproduce in an orderly manner. Sometimes, however, they divide too much and form masses known as tumors. Tumors are either benign or malignant. Benign tumors may interfere with body functions and may need to be surgically removed, but they do not spread to other parts of the body. Malignant tumors are cancerous. They not only invade and destroy normal tissue, but by a process known as metastasis, cells break away to form *more* malignant tumors, thus causing the cancer to spread. The rates of growth and spread of cancer vary widely.

## SYMPTOMS OF PROSTATE CANCER

- ❑ None in early stages
- ❑ Weak and painful urination
- ❑ Inability to urinate
- ❑ Blood in the urine
- ❑ Pelvic or lower back pain
- ❑ Nausea
- ❑ Weight loss
- ❑ Continuous pain
- ❑ Fatigue

## EARLY DETECTION

Every man over age 40 should have a digital rectal exam (DRE) as part of his regular annual physical checkup. During the DRE, the physician inserts a gloved, lubricated finger into the rectum to feel for any irregular or abnormally firm areas of the prostate. Almost all cancers begin in the area of the prostate that can be felt by the physician during a DRE.

In addition, the American Cancer Society recommends that all men over age 50 have an annual blood test called the prostate specific antigen (PSA). This simple blood test has revolutionized early detection of prostate cancer. African American men and men with a family history of prostate cancer should have an annual PSA beginning at age 40. If either the DRE or PSA is abnormal, further evaluation is indicated.

## PROSTATE CANCER DIAGNOSIS

The *only* way prostate cancer can be diagnosed is through a biopsy of prostate tissue, and its examination under a microscope. A prostate biopsy includes two components: an ultrasound procedure and a needle biopsy of prostate tissue. During the procedure, an ultrasound probe is inserted into the rectum. This enables the physician to visualize the prostate on a monitor. Then a thin needle is placed through the probe into the prostate, and a sample of tissue is taken. No anesthesia is needed for a needle biopsy of the prostate. It is an outpatient procedure usually done in the physician's office.

## STAGES OF PROSTATE CANCER

**Stage A or I (very early):** In this stage, there are no symptoms. The cancer is confined to the prostate gland, but the tumors are too small to be felt during a rectal exam. Very early stage prostate cancer is often first detected through an annual prostate cancer screening consisting of *both* a DRE and a PSA, or it may be detected in a patient having surgery for what was initially thought to be *benign* prostate disease.

**Stage B or II (localized):** These tumors are still confined to the prostate gland, but are large enough to be felt by the physician during a rectal exam.

**Stage C or III (regionalized):** These tumors have spread into the tissues immediately surrounding the prostate gland.

**Stage D or IV (advanced):** In this stage, tumors have spread to lymph nodes in the pelvis or beyond, or to other body structures, usually the bones.

## **PROSTATE CANCER TREATMENT**

Various treatment options are available, depending on the stage of the prostate cancer, the age and overall health of the patient, the physician's medical opinion, and the patient's preferences. Treatment options may include:

**Watchful waiting:** No active treatment unless the condition progresses.

**Surgery:** A *radical prostatectomy* may be done to remove the entire prostate.

**Radiation:** External radiation, in which high-energy x-rays are aimed at the prostate, may be used. Or tiny radioactive "seeds", which give off low-energy x-rays that destroy tumors, may be implanted in the prostate.

**Cryosurgery:** The cancerous prostate tissue is frozen with liquid nitrogen.

**Chemotherapy:** Medications that kill cancer cells may be used in the later stages of prostate cancer.

**Hormone therapy:** Since testosterone promotes cancer growth, blocking the body's supply of this hormone may be a means of treatment in later stages.

In any case, treatment options will be fully discussed between each patient and their physician.