## SILENT KILLER OR MANAGEABLE ILLNESS? What You Need to Know About Prostate Cancer

Oh, my friend, it's not what they take away from you that counts. It's what you do with what you have left.

—Hubert Humphrey, after cancer surgery in 1978

## Becoming the Rule, Not the Exception

In 1934, Dr. Arnold Rice Rich, a pathologist at the Johns Hopkins Medical School in Baltimore, Maryland, made an astounding discovery. Based on the autopsies of 292 men over the age of fifty, Dr. Rich found cancer in the prostate glands of 14 percent of these men. These cancers had not been detected prior to their deaths—all of which were due to other causes.

Dr. Rich described these cancers as "occult," meaning "hidden from view." When he published his observations a year later, they were greeted with disbelief and largely forgotten.

In 1954, Dr. L. M. Franks, one of Rich's original disbelievers, delivered a lecture at the Royal College of Surgeons of England, reversing his previous position, as he had become convinced of the validity of Dr. Rich's work.

Dr. Franks called these prostate tumors "latent cancers." He believed that after the cancers reached a certain stage of development, further growth stopped and the tumors remained latent for a long period of time, quite often long enough that the affected men died of an unrelated condition.

But Dr. Franks disagreed with Dr. Rich about one aspect of these latent cancers. He felt that Dr. Rich's estimate of 14 percent of men was much too low. He cited other studies showing that up to 44 percent of men had these latent or occult cancers in their prostate glands.

Let's fast-forward to 2012, when a study<sup>1</sup> from the Harvard School of Public Health determined that men who have been diagnosed with prostate cancer are more likely to die from largely preventable conditions, such as heart disease, than from prostate cancer. In fact, recent studies from 2013 show that hidden prostate cancers are present in 40 percent of men ages sixty and older and in 60 percent of men who are over the age of eighty.

Prostate cancer is the most common non-skin cancer in America, affecting one out of every six men during their lifetimes. Nearly 3 million men are currently living in the United States with prostate cancer, and approximately 221,000 new cases are diagnosed each year. About

<sup>1.</sup> M.M. Epstein, G. Edgren, J.R. Rider, L.A. Mucci, and H.O. Adami, "Temporal trends in cause of death among Swedish and US men with prostate cancer." *Journal of the National Cancer Institute* 2012 (September 5, 2012); 104 (17):1335–42.

28,000 men die as a result of prostate cancer every year, but this is less than 1 percent of the 3 million men currently living with the disease.

According to most medical experts today, if a man lives long enough, he is more likely to die *with* prostate cancer than *from* prostate cancer.

## **Basic Anatomy and Function**

The prostate is a walnut-sized gland that weighs about one ounce and lies just below the bladder and in front of a man's rectum. Its function is to add fluid to support and nourish sperm, because together, prostate fluid plus sperm equals semen.

The urethra, the tube through which urine flows from the bladder to the penis, passes through the prostate. When a man has an orgasm, muscle fibers surrounding prostate glands push prostate fluid, combined with sperm, from the testicles, into the urethra, and out through the tip of the penis. This is what naturally occurs during ejaculation.

The prostate gland is covered in a layer of connective tissue called a capsule. The internal structure of the prostate gland is made up of different types of cells, including the following:

- *Acini*: These are tiny glands made up of cells that produce the fluid portion of semen.
- Muscle cells: These control urine flow and ejaculation.
- Fibrous cells: These provide the supportive structure of the gland.

The prostate gland has three zones: peripheral, transition, and central.

The peripheral zone is closest to the rectum and can be felt by a physician during a digital rectal examination (DRE). Approximately 75 percent of prostate tumors are located in the peripheral zone.

The transition zone is in the midsection of the prostate, surrounding the urethra. Until the age of forty, it makes up about 20 percent