A Cancer Care Overview

What causes prostate cancer?

The exact causes of most prostate cancers remain unknown, but heredity and diet, particularly unhealthy fat, appear to play important roles.

What is PSA (Prostate Specific Antigen), and, if the level of PSA in my blood is elevated, does that mean that I have prostate cancer?

PSA is a protein that is made only in the prostate. An elevated level of PSA in the blood does not mean that a man has prostate cancer. There are other conditions that may elevate PSA levels in the blood, including benign enlargement of the prostate and inflammation in the prostate. PSA is, therefore, prostate specific but not prostate cancer specific. Men with an elevated level of PSA in the blood should undergo biopsies of the prostate to determine whether or not they have prostate cancer.

What is meant by the Gleason score and how is it defined?

The Gleason score indicates how aggressive a prostate cancer appears under the microscope. This grading system was developed by Donald Gleason, M.D., a pathologist. Prostate cancers are scored from one to five; one being the least aggressive and five being the most aggressive. Since prostate cancers frequently contain more than one grade of cancer, two scores are always given, a primary score for the most common pattern, and a secondary score for the next most common pattern.

Since Dr. Gleason developed his system, it has been generally agreed that Gleason scores one and two are seldom observed. Therefore, at the present time, the least aggressive score that would be assigned to an individual prostate cancer is Gleason score 3 +3=6, and the most aggressive score would be Gleason score 5+5=10.

What are the various stages of prostate cancer?

While the Gleason score indicates the aggressiveness of a prostate cancer, stage refers to the amount or volume of tumor present. As with other cancers, the Tumor Nodes Metastases (TNM) staging system is used for prostate cancer. The T stage refers to the primary tumor, and there are four T stages:

T1: Prostate tumors that cannot be felt and whose presence is suggested by an elevated level of PSA in the blood;

T2: Tumors which can be felt and appear to be confined within the prostate;

T3: Tumors that extend beyond the prostatic capsule and/or are invading the seminal vesicles.

T4 : Tumors which extend well beyond the prostate and are invading adjacent organs (bladder, rectum) within the pelvis.

The N score indicates whether or not there is evidence of lymph node metastases, and the M score indicates whether or not there are distant metastases.

If I chose active surveillance without immediate treatment, what tests will I need in the future and does this increase my risk of dying from prostate cancer?

Active surveillance is an appropriate treatment option for men older than 65 years with early stage, low Gleason score prostate cancer. Men on active surveillance should have a PSA blood test every three months, a digital examination of the prostate every six months, and routine surveillance biopsies of the prostate every 12 to 24 months to be sure that there has been no progression of their prostate cancer.

Can I make any dietary or lifestyle changes to slow the growth of my prostate cancer?

There is increasing evidence that dietary and lifestyle changes may slow the progression of prostate cancer. Specific dietary factors that may slow the progression of prostate cancer include avoiding unhealthy trans and saturated fats (dairy and meat products) and consuming healthy unsaturated and mono-saturated fats (fish oil and olive oil); antioxidants (blueberries and pomegranate juice); green tea; lycopenes (cooked tomato products); and cruciferous vegetables (broccoli, cabbage, and cauliflower).

Although there is less evidence regarding the benefit of lifestyle changes, stress reduction and physical fitness may also be beneficial.

Which treatment, surgery or radiation therapy, is more likely to cure my cancer?

Unfortunately, there have been no recent studies which have directly compared whether surgery or radiation therapy is more likely to cure prostate cancer. The available evidence would suggest that both surgery and radiation therapy result in equivalent cancer survival at ten years, but that, beyond ten years, there may be some survival benefit to surgery. Thus, younger men who

(See reverse side)

have a life expectancy of greater than ten to 15 years are generally advised to consider surgery for treatment of their prostate cancer. External beam radiation therapy is generally considered to be more effective than brachytherapy (radioactive seed implantation) in curing prostate cancer.

What are the side effects of surgery and radiation?

The major side effects associated with surgery are urinary incontinence and impotence (the inability to have erections). The frequency of both complications has declined following major improvements in the technique of open surgery in the past 25 years and the recent introduction of robotic surgery several years ago. In experienced hands, the incidence of significant urinary incontinence is now less than five percent, and the risk of impotence less than 15 percent.

While the risk of urinary incontinence is less with radiation than surgery, the risk of impotence appears to be about the same. Furthermore, with radiation therapy, there is a risk of injury to adjacent organs such as the bladder and rectum, and, 10 or 15 years after radiation therapy, there appears to be an increased risk of secondary cancers within the pelvis, mainly the bladder and rectum.

Do you offer alternative treatments such as cryosurgery and high intensity focused ultrasound?

Cryosurgery refers to freezing the prostate with liquid nitrogen through a probe inserted through the skin above the rectum. High intensity focused ultrasound refers to destroying the prostate with heat generated by an ultrasound probe which is inserted into the rectum. Both of these treatments are currently experimental and not widely available. Since their benefit is at present unclear, we do not yet offer either of these treatments in our Center. If proven to be effective, both cryosurgery and high intensity focused ultrasound may be best utilized as salvage therapy after previous failed radiation therapy.

If I chose radiation therapy as a primary treatment, is surgery still an option if radiation therapy fails to cure my prostate cancer?

Surgery is still an option if radiation therapy fails to cure prostate cancer. However, surgery after previous radiation is much more difficult and associated with a higher rate of complications, particularly urinary incontinence and impotence.

After treatment, how long will I need to be followed and what tests will be necessary to determine whether I have been cured of my prostate cancer?

Following treatment with either surgery or radiation therapy, patients need to be followed for at least 15 years to determine whether they have been cured of their prostate cancer. Although most recurrences occur within the first five years, since prostate cancer is generally slow growing, a few cancers may recur as long as 15 years after primary treatment. Following surgery, the only test that is necessary is a PSA blood test, and the PSA level in the blood should remain undetectable if all of the prostate tissue has been removed. Following radiation therapy, PSA levels in the blood seldom become undetectable, and it may be necessary to perform biopsies of the prostate after radiation therapy to be sure that the prostate cancer has been cured.

Regardless of the treatment I receive, will you continue to follow me afterwards and quarterback my care?

Regardless of the treatment you receive, we will be glad to follow you afterwards and coordinate all of your future care.