High-Grade Prostatic Intraepithelial Neoplasia (PIN)

Some physicians believe that prostate cancer begins with a condition called prostatic intraepithelial neoplasia (PIN). In this condition, there are changes in the size and shape of the cells in the prostate gland. These changes can be categorized as either low-grade or high-grade, based on the level of abnormality in the cells. If high-grade PIN is diagnosed on a prostate biopsy, there is a 30% to 50% chance that cancer is also present within your prostate. Because of the close relationship between high-grade PIN and prostate cancer, your physician may recommend additional follow-up testing to further examine your prostate for the presence of prostate cancer.

Background Information on Prostate Cancer

The prostate is an organ found only in men, and it is about the same size and shape as a walnut. The prostate gland is located just below the bladder, in front of the rectum, and surrounds the urethra, the tube that carries the urine out of the body. In most men, prostate cancers grows very slowly, however in some situations, especially with younger men, it has been seen to grow more quickly. Prostate cancer is the most common type of cancer found in American men, other than skin cancer, with about 185,000 new cases diagnosed in the United States each year.

Symptoms: After the age of 50, most men are given a DRE (digital rectal exam) and a PSA (prostate specific antigen) blood test at their annual exam. Prostate cancer is often detected by these tests since symptoms are rare. An individual with late stage prostate cancer may experience pain during urination, blood in the urine and impotence. However, these symptoms are also common with other diseases and conditions so your physician should perform a biopsy to confirm the diagnosis.

Risk Factors: Although the cause of prostate cancer is unknown, it can sometimes be associated with known risk factors. Many risk factors are able to be changed, though not all can be eliminated. Some of the most common risk factors are:

- As men age they have an increased risk of developing prostate cancer.
- A lack of exercise and diets high in red meat and dairy products and low in fruits and vegetables have been linked to prostate cancer.
- Individuals who have a family history of prostate cancer are at a higher risk for developing it. These individuals should likely be screened earlier and more frequently.
Follow-up and Treatment Options for High-Grade PIN

Prostate Specific Antigen (PSA) Test: PSA is a substance made mostly by the prostate that may be found in an increased amount in the blood of men who have high-grade PIN or prostate cancer. Your healthcare provider may draw another blood specimen from you for an additional PSA test.

Repeat Prostate Biopsy: Your healthcare provider may recommend an additional ultrasound-guided biopsy of your prostate. This may help determine whether or not you have prostate cancer. After the biopsy, the tissue is sent to a pathology laboratory where a physician specialist (surgical pathologist) evaluates the tissue using a microscope to determine if there is high grade PIN and/or prostate cancer. Depending on clinical findings, your healthcare provider may find it necessary to perform a very thorough repeat biopsy sampling of the prostate requiring individual examination of six to eighteen biopsy samples by a pathologist. This second examination may help determine whether or not you have prostate cancer when high grade PIN is only seen at the first biopsy.

Questions to Ask Your Healthcare Provider
• Are there any other tests that we need to perform?
• What follow up option do you suggest?
• What are the benefits of this type of treatment?
• What are the risks and side effects of this treatment option?
• Am I at an increased risk for prostate cancer?

Sources for Additional Information
• American Cancer Society: www.cancer.org
• National Cancer Institute: www.cancer.gov
• CancerCare: www.cancercare.org

The content on this handout is provided to you as general information and not intended as a diagnosis. Please consult with your physician regarding the essential details about your condition.