

**Prostate Cancer**

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## **Prostate Cancer**

Cancer of a small, walnut shaped gland that is specific in males is referred to as prostate cancer. The prostate contains fluid that makes up part of semen. The fluid secretions are important in the proper functioning of sperm cells, and the fertility of men (Centers for Disease Control and Prevention [CDC], 2022). This cancer significantly contributes to increased mortality rate in men globally, making it so important to diagnose and treat. “Out of every 100 American men, about 13 will get prostate cancer during their lifetime, and about 2 to 3 men will die from prostate cancer” (CDC, 2022). The reason for the increased mortality rate is because of the late finding of this type of cancer, further increasing the importance of yearly screenings.

### **Statement of the problem**

Cancer is a condition where a normal cell becomes abnormal and starts to grow or duplicate rather quickly without anything stopping the abnormal growth, as if it was a normal cell. Prostate cancer occurs when there is a change to the DNA of a normal prostate cell. As an example, androgens, which are male hormones, promote cell growth. If the male has higher levels of androgens like testosterone then this might contribute to a high risk of prostate cancer in men (American Cancer Society [ACS], n.d.).

All men from all over are at risk for prostate cancer. African American men have a higher incidence rate of about 60% than those of white men in America (Sekhoacha et al., 2022). This is primarily because of the differences in social, environmental and genetic factors. There are many variations in the occurrence of prostate cancer worldwide, and this is potentially because of PSA testing (Rawla, 2019). To elaborate on that, some countries test quite frequently resulting in over-diagnosis of prostate cancer via the PSA test, as opposed to another country who does not test as frequently. Some parts of the world may under diagnose this disease which does not have

a great benefit on the nursing community as a whole. If this is left untreated there is less curative care to be provided to the patient, and more palliative care. The goal is to diagnose the cancer prior to the cancer metastasizing which means spreading to other areas of the body. In order to do this we must be adamant about screening and treating the clients.

As men age they become at a higher risk to get prostate cancer, along with age some other risk factors are “ethnicity, genetic factors and family history, obesity, increased consumption of saturated animal fat and red meat, lower intake of fruits, vegetables, vitamins, and coffee, and physical inactivity, inflammation, hyperglycemia, infections, and environmental exposure to chemicals or ionizing radiation” (Rawla, 2019). Although “close family lineage is the primary risk factor for prostate cancer. Men with close relatives diagnosed with prostate cancer are at a 50% risk of developing cancer as compared with men with no family history of prostate cancer” (Prostate cancer Review). Some men might be asymptomatic in early stages of prostate cancer. Although the most frequent complaint is difficulty urinating, increased frequency, and nocturia and in more progressed prostate cancer men might have urinary retention and back pain (Rawla, 2019).

### **Risk Reduction/Treatment of Problem**

There are many ways to go about treating this disease. In some cases the prostate cancer is unlikely to grow quickly and with a doctor's recommendation the treatment is called “active surveillance.” This is by closely monitoring the prostate with PSA tests and prostate biopsies regularly. Along with monitoring if the cancer were to grow, it would need to be treated promptly (CDC, 2022) As well as just monitoring the progression, different prevention methods can be done as well. Simply changing your diet can reduce the risk for men to get prostate cancer. Studies have shown that certain foods are associated with higher risk, while others are

even protective. For example, saturated animal fat, corn oil, high caloric intake, and calcium, milk and dairy products. Specifically the saturated animal fat, this was shown to increase the growth of prostate cancer cells by increasing the circulating levels of androgen, and “randomized cross-over studies involving low-fat and high-fat diets showed that the level of androgen is lower postprandial as well as in vegetarians” (Rawla, 2019). Further preventions of prostate cancer include smoking cessation, and decreasing the amount of alcohol consumption. Both have been proving to have a negative effect on the prostate. By sticking to a healthier eating lifestyle and limiting the factors that could lead to this cancer will lower the chance of prostate cancer tremendously. Keeping up with physical activity will also be a benefit. By being physically inactive or even being overweight, it can alter the amount of circulating levels of metabolic and sex steroid hormones. This then increases the development of the prostate and oncogenesis (Rawla, 2019).

If the cancer has further progressed surgery might be an option. The surgery is called a prostatectomy. This involves a complete removal of the prostate. A radical prostatectomy can also be done which is removing the prostate and the surrounding tissue. Along with surgery, radiation can be done too. There are two types, external and internal. External is simply a machine outside the body that directs radiation at the cancer cells. Internal radiation is where radioactive seeds or pellets are surgically placed in or near the cancer to destroy the cancer cells (CDC,2022).

Now in order to treat the disease you need to screen and diagnose it. If the doctor suspects prostate cancer the first step is asking simple questions like any symptoms you're having like urinary or sexual problems, and how long you have had them. Along with that a digital rectal exam could be done which is where the inserts a gloved, lubricated finger into your

rectum to feel for any bumps or hard areas on the prostate that might be cancer. After the exam the doctor will order further testing like a PSA test, or biopsy (ACS, n.d.). The PSA test stands for prostate-specific antigen, which is the “keystone” for prostate cancer. “PSA is a glycoprotein secreted by the epithelial cells of the prostate gland. It is usually found in semen, but can also be found in the bloodstream” (Sekhoacha et al., 2022). During the test blood samples are taken to measure the amount of PSA in the male's blood. If the patient's levels are below 4ng/L that shows that further testing is needed. Although men with a level of 4ng/L - 10ng/L have a one in four chance of getting prostate cancer. Now if the patient has a PSA over 10ng/L, the patient has a 50% chance of having the possibility of prostate cancer. Since the PSA is not prostate cancer specific and its prostate antigen specific, the test can show only the benign pathologies. In order to determine the presence of the cancer, a biopsy is done. A biopsy is one of the most reliable diagnostics for cancer, the tissue sample from a biopsy shows under a microscope the cells and how quickly the cells are spreading (Sekhoacha et al., 2022).

### **Planning of Teaching Content**

Understanding the importance of early diagnosis of prostate cancer and how to treat the cancer is the main goal. This form of cancer is slow growing but with studies proving that males who go undiagnosed have a higher mortality rate, means screening and prevention are so important to reduce the risk of morbidity. Knowing the foods to limit and knowing how smoking and alcohol can affect males chances in getting prostate cancer is a major learning outcome. Equally as important as preventing is diagnosing the cancer and then treating what has been diagnosed. The patient needs to take part in the steps of diagnosing and getting the tests done routinely in order to stay on track with what could show up at any time.

In order to reach the main goal, questions will be asked to engage the learner and help get my point across with fact based responses instead of opinions. By asking questions the learner can express previous knowledge on the topic or any unclear points the learner might want clarity on. Along with questions, repeating some of the big takeaways will increase the chance of the learner grasping the most important parts, by hearing it more often. Lastly, by providing brochures and a poster to express key points I can grab the learners attention with the poster, and then inform the learner further with a brief brochure.

### **Conclusion**

There are so many risks that can cause men to have an increased chance of prostate cancer. Along with risks are genetics that men have less control over than the risks. It is so important for all men to see their doctor regularly and to know what could or could not affect the prostate. Equally as important is knowing what a healthy lifestyle is for the individual and how to maintain a preventative lifestyle of prostate cancer.

## References

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