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# **Prostate Cancer: An Overview**

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# **Description**

Prostate is located below the bladder (a hollow organ that holds urine) and in front of the rectum (the male reproductive organ). Seminal vesicles, which are positioned just below the prostate, create the majority of the fluid for semen. The urethra moves through the prostate's core, carrying urine and sperm out of the body via the penis. DNA, a molecule found in all living things, is used to create our genes, which control how our cells work. Because our DNA originates from our parents, we usually look like them. DNA, on the other hand, has a unique structure.

## Causes of prostate cancer

- Prostate cancer occurs due to alterations in the DNA of a normal prostate cell at its most basic level.
- Oncogenes are genes that help cells grow, reproduce, and stay alive
- Tumor suppressor genes are those which typically control cell development, rectify DNA damage, cause cells to die at the appropriate moment.

### Cells development, division and death

- Oncogenes are genes that aid in the division, development and survival of cells.
- DNA mutations (or other forms of alterations) that keep oncogenes active or abort tumor suppressor genes cause cancer.

### Other factors of prostate cancer

- Adenocarcinomas account for nearly all prostate cancers.
- These tumors are formed by the cells of the glands (the cells that produce the prostatic fluid that is delivered into the body).
- Some of the cancers that can start in the prostate include the following:
- Squamous Cell Carcinomas (SCCs) are cancers that develop on the surface of the skin.
- Squamous Cell Carcinoma is cancer that affects the lungs, although it can also affect the cervix, prostate, and gastrointestinal tract.

Other than small cell carcinomas and neuroendocrine tumors,

Malignancies that start in specialized neuroendocrine cells are known

as neuroendocrine tumors. Nerve cells and neuroendocrine cells have a lot in common. Neuroendocrine tumors are uncommon and can occur in any part of the body.

#### Age

Prostate cancer is uncommon in males under the age of 40, but beyond the age of 50, the chance of developing will increase dramatically. Prostate cancer affects around six out of every ten males over the age of 65.

# **Symptoms and Signs**

Because of screening, the majority of prostate cancers are diagnosed early. Prostate cancer often has no symptoms in its early stages.

More advanced prostate tumors may produce symptoms such as:

- · Whether its blood or sperm in the urine, it's a sign of a problem.
- Urinary issues, such as a slow or weak urinary stream or the need to urinate more frequently, especially at night (erectile dysfunction or ED)
- Pain in the hips, back (spine), chest (ribs), and other areas are caused by cancer that has progressed to the bones.

### **Risk factors**

- A risk factor is something that increases your chances of having a disease like cancer.
- · Distinct malignancies have different risk factors.
- For example, smoking is a preventable risk factor.
- Others, such as a person's age or family history, are unchangeable.
- Having one or more risk factors, however, does not guarantee that you will get the disease.
- Many persons with one or more risk factors never develop cancer, but others with few or no known risk factors develop cancer.

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