

Prostate Cancer

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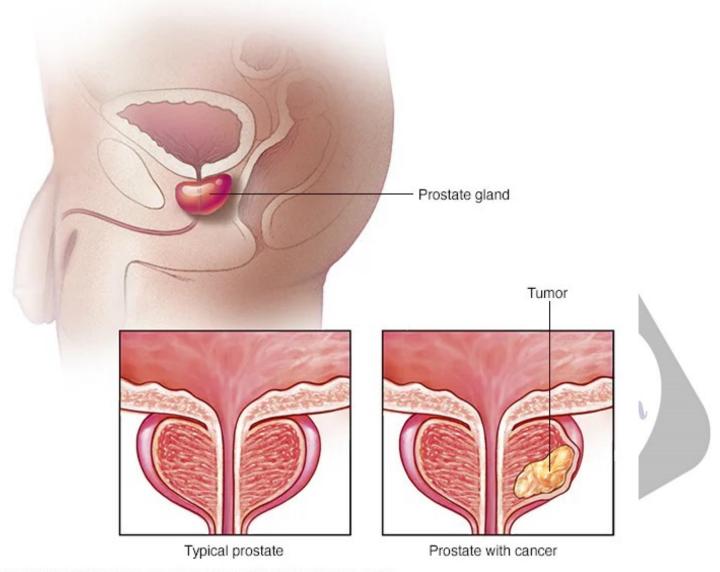
Why in News?

A recent Lancet Commission paper highlights the alarming **rise in** <u>prostate cancer</u> **cases in India,** leading to a higher mortality rate due to late-stage diagnosis.

- In India, a large number of patients are diagnosed with advanced-stage cancer, leading to a 65% mortality rate.
- Globally, prostate cancer cases are expected to double by 2040, with low and middle-income countries facing the most significant rise, including India where new cases are projected to reach 71,000 annually.

What is Prostate Cancer?

About: Prostate cancer is a type of cancer that develops in the prostate, a small gland in the male reproductive system located below the bladder. The prostate gland produces fluid that nourishes and transports sperm.



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- **Prevalence**: The Lancet Commission report predicts a global surge in prostate cancer cases, with low and middle-income countries facing the most substantial increase.
 - Worldwide, prostate cancer was responsible for approximately 3,75,000 deaths in 2020, ranking it as the fifth leading cause of cancer-related deaths in men.
 - It currently accounts for 3% of all cancers in India, with an estimated 33,000-42,000 new cases annually.
 - Ageing populations and increasing life expectancy contribute to higher numbers of older men, increasing the risk of prostate cancer.
- **Risk Factors**: The risk factors for prostate cancer include age (especially over 50), genetics, diet, obesity, smoking, chemical exposure, prostate inflammation, and hormonal factors.
- **Symptoms**: Prostate cancer is typically **asymptomatic in its early stages**, but symptoms may include difficulty urinating, frequent urination (especially at night), blood in the urine, erectile dysfunction, and lower back or thigh pain.
- Detection: Prostate-specific antigen (PSA) blood test measures the level of PSA in the blood. Elevated PSA levels can be a sign of prostate cancer, but they can also be caused by other factors.
- Treatment:
 - **Surgery:** Surgery to remove the prostate gland **(radical prostatectomy)** is a common treatment option.
 - Radiation therapy: Radiation therapy uses high-energy rays to kill cancer cells.
 - **Hormone therapy:** Also called androgen deprivation therapy (ADT), it is a treatment that reduces the amount of testosterone in the body.

• **Brachytherapy:** This treatment implants radioactive seeds directly into the prostate gland.

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UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Stem cell therapy is gaining popularity in India to treat a wide variety of medical conditions including Leukaemia, Thalassemia, damaged cornea and several burns. Describe briefly what stem cell therapy is and what advantages it has over other treatments? **(2017)**

