

MEDICAL BREAKTHROUGHS **RESEARCH SUMMARY**

TOPIC: PREVENT UNNEEDED BIOPSIES WITH IsoPSA
REPORT: MB #4843

PROSTATE CANCER: Prostate cancer begins when cells in the prostate gland start to grow out of control. The prostate is found only in males and makes some of the fluid that is part of semen. The prostate is below the bladder and in front of the rectum. Just behind the prostate are glands called seminal vesicles that make most of the fluid for semen. The urethra, which is the tube that carries urine and semen out of the body through the penis, goes through the center of the prostate. Almost all prostate cancers are **adenocarcinomas** which are cancers that develop from the gland cells. Other types of cancers that can start in the prostate but are rare include small cell carcinomas, neuroendocrine tumors, transitional cell carcinomas, and sarcomas. Prostate cancer is found when a man has a prostate biopsy. When looking at the biopsy a doctor will look at the pattern of the cells which will tell them whether it is a low-grade prostatic intraepithelial neoplasia (PIN) where the cells appear normal or a high-grade PIN where cell patterns look abnormal.

(Source: <https://www.cancer.org/cancer/prostate-cancer/about/what-is-prostate-cancer.html>)

CONVENTIONAL PROSTATE CANCER SCREENING TESTS: Prostate screening tests might include a digital rectal exam (DRE). During a DRE, your doctor inserts a gloved, lubricated finger into your rectum to examine your prostate, which is adjacent to the rectum. If your doctor finds any abnormalities in the texture, shape, or size of the gland, you may need further tests. Your doctor may also do a prostate-specific antigen (PSA) test where a blood sample is drawn from a vein in your arm and analyzed for PSA, a substance that is naturally produced by your prostate gland. It is normal for a small amount of PSA to be in your bloodstream. However, if a higher than usual level is found, it may indicate prostate infection, inflammation, enlargement, or cancer.

(Source: <https://www.mayoclinic.org/diseases-conditions/prostate-cancer/diagnosis-treatment/>)

ISOPSA TEST: It is a blood-based diagnostic test that has superiority over conventional tests in predicting the presence of high-grade prostate cancer, potentially resulting in a significant decrease in unnecessary prostate biopsies by differentiating between the risks of high-grade and low-grade cancer or benign biopsies. The conventional PSA Test has limitations, most notably its imprecision when detecting the aggressiveness of a malignancy. The IsoPSA is a reflex test that takes a different biological approach. It examines structural changes in a patient's PSA levels because of disease pathogenesis, rather than assessing the concentration of the protein. The IsoPSA test will offer new clinical data points to guide the physician-patient conversation about the prostate cancer biopsy.

(Source: <https://consultqd.clevelandclinic.org/the-isopsa-test-is-available-and-it-could-change-the-diagnostic-paradigm-for-prostate-cancer/>)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

HOPE BUGGEY

BUGGEYH@CCF.ORG

If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com