

PROSTATENOW[™]

A Comprehensive Germline Panel for Prostate Cancer

The Genetics of Prostate Cancer

Prostate cancer is not typically considered a hereditary disease, but studies show that inherited factors account for **57%** of the risk for developing prostate cancer (including **sporadic** cases).¹ In fact, the heritability of prostate cancer is **stronger** compared to other cancers such as breast cancer, ovarian cancer and colorectal cancer. This highlights the importance of assessing the inherited risk for prostate cancer. Inherited risk can be assessed using three available methods: **family history**, **rare pathogenic mutations (RPMs)**, and **genetic risk score (GRS)**.

A Science and Physician-Driven Germline Testing Solution

PROSTATENOW[™] is a new, clinical grade, comprehensive germline panel offered by GoPath. The test content, result interpretation and corresponding clinical actions are developed and supported by the urology team of [NorthShore University HealthSystem](#). The urology team is a national leader in the field of the genetics of prostate cancer, evidenced by many published peer-reviewed articles in the top medical journals such as the New England Journal of Medicine, European Urology, Nature Series, and JAMA Series and patents.

PROSTATENOW[™] is the only test...



To satisfy all three reasons for germline testing

- Prognosis among patients with localized prostate cancer
- Therapeutic responses for advanced prostate cancer patients
- Discover potential prostate cancer risk for unaffected men



To include both RPMs and GRS from studies involving multiple races

- Includes all known prostate cancer susceptibility genes as well as >100 prostate cancer risk-associated SNPs for calculating GRS in multiple races.



Based on comprehensive evaluation of current evidence

- Developed based on recommendations from up-to-date clinical guidelines, current evidence review, and proprietary data from the NorthShore team.

PROSTATENOW[™] is Unique and Cutting-Edge

The Largest Mutation Database:

Following the mutation-calling guidelines of American College of Medical Genetics (ACMG), we have the largest germline mutation database with data gathered from more than 300,000 men with or without prostate cancer.

Education by Experienced Urologists:

Practicing urologists experienced in genetics at NorthShore University HealthSystem provide guidance and education about **PROSTATENOW[™]**.

Research Option:

Patients have the choice to opt-in for research that examines hundreds of other candidate genes, helping to expand our knowledge of cancer research and impact the health of present and future generations.

Reliability of GRS in Multiple Races:

Reported GRS values are calibrated for the general population and have been validated in many races.

Who Should Be Tested?

Most prostate cancer patients and their families can benefit from germline testing. The new **NCCN guidelines** recommend germline testing for the following groups:

For Prostate Cancer Patients

- Patients with high to very high risk and/or regional or metastatic disease
- Patients with **high-risk family history, intraductal histologies** or **other conditions, regardless of risk**

High-risk family history includes:

- A 1st-degree relative or multiple relatives <60y who were diagnosed or died of prostate cancer
- Ashkenazi Jewish ancestry
- ≥3 cases of any cancer on the same side of the family

Other conditions include:

- Family history of hereditary cancer syndromes and/ or high-risk germline mutations (e.g. *BRCA1/2*, Lynch gene mutation)
- Family history of other potential high-risk germline mutations (e.g. *ATM*, *CHEK2*, *PALB2*, *HOXB13*)

For Unaffected Men

- Men with a family history of hereditary cancer syndromes (HBOC, Lynch or others)
- Men with a family history of pathogenic mutations with cancer syndromes

Genes Tested

The genes tested are based on a combination of clinical guidelines and up-to-date evidence-based review.

ATM	GEN1	MLH1
ATR	MRE11A	MSH2
BRCA1	NBN	MSH6
BRCA2	PALB2	PMS2
BRIP1	RAD51C	HOXB13
CHEK2	RAD51D	HSD3B1
FAM175A	TP53	SNP-BASED GRS
FANCA	EPCAM	

Streamlined Service

PROSTATENOW™ uses the **GENETICSNOW™** testing process, which is streamlined to prioritize quality and simplicity. Refer a patient and leave the rest in the hands of our skilled professional team of **pathologists, genetic counselors, scientists, technologists, coordinators, and urologists.**

Powered by NorthShore University Health

PROSTATENOW™ offered by GoPath is a comprehensive germline panel developed and supported by the urology team of **NorthShore University HealthSystem**. The clinical validity and utility of RPMs and GRS in cancer risk assessment are supported by hundreds of peer-reviewed papers published by the NorthShore team, including **The New England Journal of Medicine, European Urology**, and **JAMA Network Open**.



References

1. Mucci LA, Hjelmborg JB, Harris JR, et al. Familial Risk and Heritability of Cancer Among Twins in Nordic Countries. *JAMA*. 2016 Jan 5;315(1):68–76.
2. Xu J, Labbate CV, Isaacs WB, Helfand BT. Inherited risk assessment of prostate cancer: it takes three to do it right. *Prostate Cancer Prostatic Dis*. 2019 Aug 15
3. Pritchard CC, Mateo J, Walsh MF, et al. Inherited DNA-Repair Gene Mutations in Men with Metastatic Prostate Cancer. *N Engl J Med*. 2016 Aug 4;375(5):443–53
4. Na R, Zheng SL, Han M, et al. Germline Mutations in ATM and BRCA1/2 Distinguish Risk for Lethal and Indolent Prostate Cancer and are Associated with Early Age at Death. *Eur Urol*. 2017;71(5):740–7