

# Risk of Breast and Prostate Cancer

## INFORMATION ABOUT YOUR GENETIC TEST RESULT

### Your Result

**Positive for a known pathogenic or likely pathogenic variant in the *NBN* gene**

### What This Result Means

This result means you have a change (mutation) in the *NBN* gene. Mutations in this gene are linked to an increased chance of certain cancers. Women have a higher risk of breast cancer. Men have a higher risk of prostate cancer.

At this time, experts don't know a lot about the risk of cancer linked to mutations in this gene. Further research is needed to learn more. New studies will tell us how high

the risk for cancer is and if there is a risk for other cancers, too. Mutations in other genes may increase the risk for cancer in you or your family.

This result doesn't mean you will get cancer—not everyone with a mutation develops cancer. But you are at higher risk than you would be if you didn't have the mutation.

### Options for Managing Your Cancer Risk

Your test result shows that you may have an increased risk for developing cancer. At this time, there are no guidelines for managing your risk. You might benefit from increased cancer screening. This screening should be based on your personal and family history of cancer. Talk with your doctor or genetic counselor to learn more and find out what is best for you.

The options for managing your cancer risk may change over time. As more is learned about mutations in this gene, more will be learned about things you can do to lower risk. Check with your doctor and/or genetic counselor each year to see if options have changed.

### What This Result Means for Your Family

You share genes in common with your blood relatives, so some of them may have the same mutation that you have. Your parents, brothers, sisters, and children each have a 50% chance of having it. Other blood relatives also have an increased risk.

If your partner also has an *NBN* mutation, your child is at risk for Nijmegen breakage syndrome (NBS). NBS affects the brain and other parts of the body. Talk to your doctor and/or genetic counselor if you are thinking about having a baby.

Think about sharing your test results with your relatives. They might want to find out if they have the mutation, too. If so, they should talk with their doctor and/or genetic counselor about testing. They could be tested just for the mutation that you have. Because this type of testing is targeted, it is a less expensive test. It will let them know if they have the same mutation you have. In some cases, testing more genes might be suggested. Either way, testing will help them know more about their risk for cancer.

Relative	Risk of Having the Same Mutation
Identical twin	100%
Fraternal twin	50%
Parent, brother, sister, child	50%
Grandparent, uncle, aunt, niece, nephew	25%
First cousin	12.5%

## Your Next Steps

- Get a copy of your test results.
- Talk with your doctor or genetic counselor about things you can do to manage your risk.
- Once you and your doctor have made a plan, set up appointments to start managing your risk.
- Think about sharing copies of your test results with your family members. That way, their doctor will know which test to order if they want to be tested.
- Talk with your doctor or genetic counselor regularly. They can keep you up to date about genetic testing and risk management options.

You can help researchers learn even more about this gene and its link to cancer risk. You can do this by participating in a research registry called PROMPT. If you would like to do this, please visit [PROMPTStudy.org](http://PROMPTStudy.org) to learn more.

## Additional Resources

- **Facing Our Risk of Cancer Empowered (FORCE)**  
[FacingOurRisk.org](http://FacingOurRisk.org)
- **Young Survival Coalition**  
[YoungSurvival.org](http://YoungSurvival.org)
- **Bright Pink**  
[BrightPink.org](http://BrightPink.org)
- **Sharsheret®**  
[Sharsheret.org](http://Sharsheret.org)
- **National Society of Genetic Counselors**  
Find a Genetic Counselor  
[NSGC.org/p/cm/ld/fid=164](http://NSGC.org/p/cm/ld/fid=164)

This information is not a substitute for medical advice, diagnosis, or treatment. The diagnosis or treatment of any disease or condition may be based on personal history, family history, symptoms, a physical examination, laboratory test results, and other information considered important by your doctor. Always talk with your doctor about the meaning of your test results and before you stop, start, or change any medication or treatment.

The classification and interpretation of the variant(s) identified reflect the current state of Quest Diagnostics' understanding at the time of the accompanying report. Variant classification and interpretation are subject to professional judgment, and may change for a variety of reasons, including but not limited to, updates in classification guidelines and availability of additional scientific and clinical information. This test result should be used in conjunction with the health care provider's clinical evaluation. Inquiry regarding potential changes to the classification of the variant is strongly recommended prior to making any clinical decision. For questions regarding variant classification updates, please call Quest Diagnostics at 866.GENE.INFO (436.3463) to speak to a genetic counselor or laboratory director.

### QuestDiagnostics.com

Quest Diagnostics Incorporated and its subsidiaries (Quest) complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. ATTENTION: If you speak English, language assistance services, free of charge, are available to you. Call 1-844-698-1022. ATENCIÓN: si habla Español (Spanish), tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1-844-698-1022. 注意: 如果您使用繁體中文 (Chinese), 您可以免費獲得語言援助服務。請致電 1-844-698-1022.

Quest, Quest Diagnostics, any associated logos, and all associated Quest Diagnostics registered or unregistered trademarks are the property of Quest Diagnostics. All third party marks – ® and ™ – are the property of their respective owners. ©2016 Quest Diagnostics Incorporated. All rights reserved. PP5871 11/2017