Frequently Asked Questions About Genetic Testing

Q: Will genetic testing be covered by my insurance?
A: When patients meet specific indications, testing may be covered by insurance. Your costs will also depend on your deductible and co-insurance. The Human Genetics Laboratory works with insurance companies to obtain prior authorization. An estimate of your out-of-pocket costs will be provided before you decide whether or not to have testing.

Q: Will genetic testing results affect my health insurance coverage?
A: Federal law protects your genetic information. The Genetic Information Nondiscrimination Act (GINA) of 2008 (Public Law 110-233) prohibits health insurance companies and employers from discriminating based on genetic test results, in most cases. However, at this time, laws do not protect against discrimination for long term care, disability, or life insurance.

Q: If I have already had cancer, do I need genetic testing?
A: It is most informative to first provide genetic testing to the family member with a personal history of cancer. Results from genetic testing can help explain why the cancer occurred, and, more importantly, can give information about future cancer risks. These results may change your care and can help family members understand their chance of getting cancer.

Q: What if I previously had BRCA1 and BRCA2 genetic testing and no mutation was identified?
A: The Breast|Ovarian|Uterine26 Panel may be ideal because 24 additional genes will be analyzed that could potentially provide an answer for you and your family. Your genetic counselor can indicate on the order form that BRCA1 and BRCA2 were previously analyzed.

Patient Resources

Bright Pink
• www.brightpink.org

FORCE
• www.facingourrisk.org

Foundation for Women’s Cancer
• www.foundationforwomenscancer.org

Lynch Syndrome International
• www.lynchcancers.com

National Cancer Institute
• www.cancer.gov

National Ovarian Cancer Coalition
• www.ovarian.org

Sharsheret
• www.sharsheret.org

Susan G. Komen
• www.komen.org
**What is Hereditary Cancer?**

Cancer is common. Most cancers occur by chance, and it is not uncommon to have family members with cancer. These sporadic cancers are likely caused by a combination of genes and environment. However, a portion of all cancer is hereditary, meaning a person had a predisposition to develop the cancer. Hereditary cancers are caused by a change in a single gene, which is present in a person before they are born. Single gene changes that predispose a person to cancer are often passed from generation to generation in a family, but they may also be brand new in an individual. Not everyone who inherits a genetic predisposition to cancer will develop cancer in their lifetime, but they are at an increased risk and there are often recommendations for high-risk screening and management. A personal and family history may be suggestive of hereditary cancer, depending on certain types of cancer present, certain clustering of cancers, early age of onset, and other unique features.

**Is This Panel Appropriate for Me?**

This test may be right for you if you have a personal or family history of:

- Breast cancer diagnosed at age 45 or younger
- More than one independent cancer in the same person
- Ovarian, fallopian tube, and/or primary peritoneal cancer
- Male breast cancer
- Breast, uterine, and thyroid cancer*
- 3 or more family members with breast, ovarian, pancreatic, and/or prostate cancer*
- Multiple family members with breast and other cancers* (including ovarian, uterine, pancreatic, colon, gastric, and thyroid)
- A combination of personal/family history of ovarian, uterine, colorectal, or other gastrointestinal tumors

*A on the same side of the family

**What is the Breast|Ovarian|Uterine26 Panel?**

Approximately 5-10% of breast cancer and 20-25% of ovarian cancer is hereditary. About 2-3% of uterine cancer is also hereditary. The majority are caused by several high-risk genes, many of which overlap between these three types of cancer. Additional moderate-risk genes are also known to play a role in women's hereditary cancers. **Breast|Ovarian|Uterine26** is a genetic test that looks for changes in 26 genes known to increase the risk for breast, ovarian, and/or uterine cancer. Some of these gene changes cause increased risks for additional cancers. Most of these gene changes are associated with risks for adults, but some mutations may cause risks for children. Your health care provider can discuss features related to each gene.

**Test Details**

This test is performed on a blood sample sent to the Human Genetics Laboratory at the University of Nebraska Medical Center. Talking to a health care provider before and after your test will help you understand which test is best for you and what the results of the test mean. It usually takes up to 6 weeks to get results from the test. Your health care provider can discuss cancer risks and cancer screening and prevention strategies based on your personal and family history and your genetic testing results. Your health care provider can discuss whether further genetic testing is reasonable for you and/or your family members.

**Potential Test Results**

**Positive for a Pathogenic Variant**

A pathogenic (disease-causing) change in a gene was identified and this change is known to increase the risk for certain cancers. Another name for this type of change is a "mutation". Targeted genetic testing for this pathogenic change is available for at-risk family members.

**Negative**

No harmful or uncertain changes were found in any of the genes tested.

**A Variant of Uncertain Clinical Significance (UCS)**

An inconclusive change in a gene was identified. This means it is currently unclear whether this change in the gene could increase the risk for cancer or whether it is harmless.

**References**

Available on the Human Genetics Laboratory website: www.unmc.edu/mmi/geneticslab/resources/reference-articles.html