GENETIC RISK ASSESSMENT AND TESTING

Your genes may predict your risk of cancer, and certain genetic tests may help your doctors provide better screening or treatment options. If you have certain types of cancers, or cancer in your family, you may be at higher risk. We can help.

Heredity Cancer

All cancers are caused by genetic mutations, whether inherited or acquired. About 15-25% of breast and ovarian cancers are caused by an inherited genetic mutation. These mutations damage DNA repair proteins leading to further mutations and eventually to cancer.

The presence of these mutations does not mean you will definitely develop cancer, but they may increase your risk substantially. However, many families have more than one member with cancer without having an inherited risk. For these reasons, it is critical to complete a thorough family cancer pedigree and share with your family and health care providers.

Our Expertise

Arizona Oncology's Genetic Risk Assessment and Testing program offers personalized cancer-risk assessment and risk reduction strategies. Our goal is to guide you through the process of deciding if genetic testing is right for you. We have the experience to evaluate family history, provide knowledgeable guidance about cancer risk, detection and prevention, and can help you interpret the results of genetic testing.

Gene Panels

Next-generation sequencing technologies and the June 2013 Supreme Court ruling on gene patents has enabled commercial labs to offer a panel of gene tests in addition to BRCA testing. Though BRCA mutations are best known for Hereditary Breast-Ovarian Cancer Syndrome, there are several other related genes that cause the same syndrome. An equally important but less know set of gene mutations causes Lynch Syndrome, which predisposes to colon, endometrial, uterine, breast, kidney, and several other cancers. Current panel testing can test for these and other, less common syndromes at the same time.

Important Flags for Genetic Evaluation

- Cancer that occurs at a younger age than expected
- Cancer that is present in multiple generations
- Multiple cancers in the same person
- Specific cancers (e.g. All ovarian, fallopian, peritoneal, endometrial, or colon cancers, triple-negative breast cancers < age 60)

Mike Janicek, M.D.

Dr. Janicek graduated magna cum laude from Harvard College, and received his medical degree from the Harvard Medical School - MIT Program in Health Sciences and Technology, followed by an OB-Gyn residency at Johns Hopkins. His fellowship was completed at the University of Miami, where he stayed on faculty as the Gynecologic Oncology Laboratory Director and Associate Professor of Microbiology and Immunology. He is currently the Medical Director of the Virginia Piper Genetic Risk Assessment Center, Medical Director of the Phoenix Division Arizona Oncology Genetics Program, and Director of Gynecologic Oncology at Scottsdale Healthcare.

ACCESS THE ONLINE PEDIGREE TOOL:

FHQ.ROOTOUTCANCER.COM.

For more information, call (480) 993-2950 or visit ArizonaOncology.com.

ARIZONA ONCOLOGY | The US Oncology Network

The Facts

- Individuals who have inherited gene mutations may be at a higher risk for more than one type of cancer
- Hereditary gene mutations can be passed on to children by both the father and the mother
- Lifestyle alterations, medication and preventive surgery can reduce your risk of developing cancer if you have a hereditary cancer syndrome.
- More aggressive screening may be indicated in certain genetic cancer syndromes

Why Test

Early detection for patients with an inherited risk involves more rigorous screening. For example, breast MRI is recommended in addition to mammography for female patients at risk for breast cancer. Those with an inherited risk for colon cancer should have colonoscopies more often to remove the polyps that can become cancer.

For many cancers, the gold standard for risk reduction is preventive surgery. Mastectomy and surgical removal of the ovaries and/or fallopian tubes can reduce the risk of breast and ovarian cancer by 90-95%. Genetic testing at the time of a cancer diagnosis can help you and your physician determine the best treatment strategy for you.

When to Evaluate for Genetic Screening or Testing

Consult with Arizona Oncology experts if you or a family member on either side of your family has had:

- History of cancer among multiple close relatives
- Ashkenazi or Jewish heritage with breast or ovarian cancer
- Triple-negative breast cancer before age 60, ER+ breast cancer before age 45, or male breast cancer at any age
- Ovarian /fallopian tube/peritoneal cancers cancer at any age
- All colon or endometrial cancer

Online Pedigree Tool

We now offer a powerful online tool that asks basic family cancer information and produces a pedigree drawing for use by you and your health care providers. Your provider will arrange for appropriate assessment or a referral for genetic counseling.

Access the tool at: fhq.rootoutcancer.com.

Your Rights

Some patients worry that results of genetic testing could lead to discrimination on the part of employers or insurance companies. The 2008 federal law called the Genetic Information Nondiscrimination Act, or GINA, prohibits insurers from denying coverage or charging higher premiums based on genetic test results. GINA also bars employers with more than 15 employees from using genetic information to discriminate against employees or job applicants.

Scottsdale Gynecologic Oncology
10197 N. 92nd Street, Suite 101
Scottsdale, AZ 85258

ARIZONA ONCOLOGY | The US Oncology Network