



TIP SHEET

Genetic Counseling & Testing

Hereditary Cancer Risk: What You Should Know

Some people are born with gene mutations (alterations in specific genes) that can greatly increase their risk of developing cancer. These gene mutations may be passed along from parents to their biological children, from one generation to the next. A person has a 50% chance of inheriting a gene mutation if their parent has one. If you have an inherited (hereditary) cancer risk, you have a higher-than-average chance of developing cancer.

Should You Be Tested?

While genetic testing can reveal whether or not you have genetic changes related to cancer risk, testing is not recommended for everyone. If there appears to be a pattern of cancers in your close relatives, Roswell Park's **Clinical Genetics Service** can review your personal and family medical history to help determine whether you should consider testing.

HIGH RISK? WE CAN HELP

If genetic testing reveals an increased cancer risk, Roswell Park's experts can provide appropriate screening, surveillance and preventive options through our **High Risk Clinics** dedicated to helping people manage their risk for these cancers:

- ✓ Breast
- ✓ Gynecologic
- ✓ Pancreatic

Red Flags for Cancer Risk

You may benefit from genetic counseling and testing if your family tree shows one or more of the following:

 **Multiple blood relatives who have had cancer.**

Most important are "first-degree" relatives—parents, brothers or sisters, and children.

 **One close relative with a certain cancer type, or clusters of the same cancer type.**

Certain cancers, such as ovarian cancer, or breast cancer in a male raise a red flag. Also, take note of the same cancer types, say breast or prostate, occurring over and over, as well as cancers that tend to cluster together (for example, breast and ovarian cancer). Look for relatives who have had multiple primary cancers—two or more different cancers.

 **Relatives who were diagnosed at a young age.**

Look for relatives who received a cancer diagnosis before the age of 50. Cancer is not uncommon among people in their 60s or 70s, but diagnoses in younger people may indicate an inherited risk.

 **The ancestry of your family.**

Certain ethnic groups—for example, people of Ashkenazi Jewish ancestry—may be at higher risk for genetic changes associated with cancer risk.



Why Roswell Park Cancer Institute?

Genetic testing should be performed by formally trained genetics providers to ensure that appropriate tests are ordered, results are interpreted correctly, and the right screening recommendations are made.

Roswell Park's Clinical Genetics providers can:

- **Educate you and your family** about the biology and genetics of cancer and discuss the social, ethical, and legal issues related to genetic testing.
- **Create your genetic pedigree** (family tree) to record cases of cancer among your relatives and look for patterns that may show increased cancer risk.
- **Arrange for genetic testing** via a blood test performed off-site.
- **Explain the results** of your genetic tests.
- **Discuss what you can do** if testing reveals an inherited cancer risk. Options may include starting cancer screening at an earlier age and more frequent screenings; taking medication designed to lower the risk of certain cancers; or undergoing risk-reducing surgery—for example, having breasts, ovaries, or the thyroid gland removed to prevent cancer from developing in those organs.

Roswell Park
is the only National
Cancer Institute-
designated Comprehensive
Cancer Center in New York
State outside of
New York City.

Only about
5-10%
of cancers are linked
to inherited genetic
mutations.

Follow-Up is Essential

If you decide to undergo genetic testing, or if you were tested in the past, remember that the answers you get today may be different from the answers you'll get later on. We're just beginning to identify inherited gene mutations that raise cancer risk. Your risk profile will change as research reveals more information, so your personal and family history should be reviewed periodically.

What's the Next Step?

If you have questions about your personal cancer risk and want to learn whether you should consider genetic testing and counseling, ask your health care provider for a referral or call Roswell Park's **Cancer Information Program** at **1-877-ASK-RPCI** (1-877-275-7724). An information specialist will complete a brief questionnaire with you over the phone, and you will be contacted later about an appointment.

**Our board-certified
genetic counselors are
formally trained providers in
both genetics and counseling.**

These experts can interpret the complex data revealed by various genetic tests, explain the pros and cons of testing for your situation, and counsel you regarding your options.

Meet the Team



Mollie L. Hutton, MS, CGC
Genetic Counselor



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