

## How does a genetic change occur?

In families with a cancer thread, genetic testing looks for a change or mutation of certain genes. Genes are within each cell and the body has about 20,000 genes. Some contribute to traits like height and eye color, and others to various body functions. There are two copies of each gene in every cell.

If there's a mutation in one of the two copies of a BRCA1 or BRCA2 gene, which is involved in normal cell function, the other copy still works. But, if there's also a mutation in the second copy in a cell, that cell can become cancerous. A person with a BRCA gene mutation has a 50 percent chance of passing it down to each of his or her children and increasing the chances for breast or ovarian cancer.

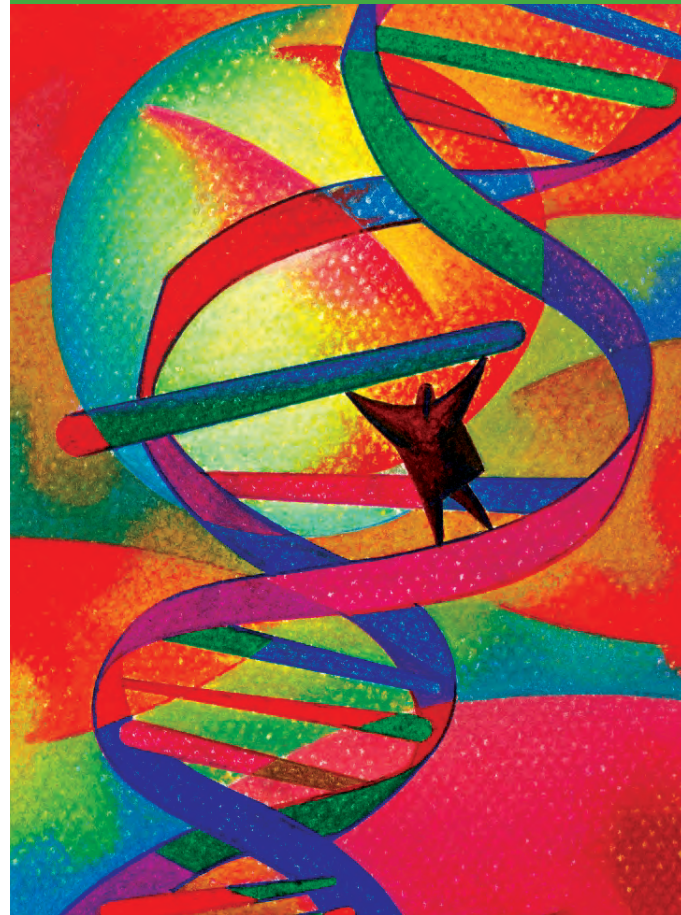
*What you need to know ...*

## If You're Considering Genetic Counseling and Testing for Hereditary Cancer

The Katherine Ann King Rudolph Hereditary Cancer Genetics Program  
at The Hospital of Central Connecticut



100 Grand St., New Britain • [www.thocc.org](http://www.thocc.org)



## Why consider genetic counseling and testing?

If you have a strong family history of cancer, have had more than one cancer diagnosis or cancer at a young age, you may question if it's "in the genes." Some breast cancers, for example, are triggered by a gene defect, also known as a mutation, that can be passed from a parent to a child. Genetic testing looks for such a mutation.

The Hospital of Central Connecticut's Katherine Ann King Rudolph Hereditary Cancer Genetics Program provides genetic counseling and testing to help identify adults at risk of certain cancers and support them to make choices about possible treatment. Our program follows guidelines from the National Society of Genetic Counselors and the American Society of Clinical Oncology.

## Am I a candidate for genetic counseling and/or testing?

You are eligible for genetic counseling and testing if you

- had cancer at a young age;
- have had two or more cancers, like breast, ovarian or colon; or
- have a family history of certain cancers.

## Program begins with genetic counseling

When you meet with the genetic counselor, you'll learn about genetic testing – what it is, when it's appropriate and what it might mean to you and your family.

To help determine genetic testing that's right for you, the counselor will ask you about your medical and family history, focusing on types of cancer and ages at diagnosis. If you choose testing, you'll meet with the counselor about two weeks after testing to learn what results may mean for you and your family.

## What does gene testing involve?

Gene testing looks for inherited gene changes or mutations that can increase risk for certain cancers. Most testing requires a simple blood test. The blood's DNA is studied for mutations in genes involved with

- hereditary breast and ovarian cancer
- colorectal cancer — either hereditary nonpolyposis colorectal cancer (HNPCC) or that triggered by familial adenomatous polyposis (FAP)

## What are treatment options?

If your test shows a genetic mutation that can increase risk for certain cancers, the counselor will tell you about treatment options like intensive cancer screening exams and risk-reducing surgery. You should discuss treatment options with your doctor.

## Physician referral required for testing

If your physician thinks genetic testing might be right for you, he or she can make a referral by calling the genetic counselor, located at the New Britain General campus, at 860-224-5900 x6630. Physician referral is not required for a consult. Insurance usually covers testing for patients at risk of hereditary cancer.