

**The official newsletter of The Genomical Connection,
formerly the Guilford Genomic Medicine Initiative (GGMI)**

Genetic testing: is it right for me?

Did you know...

- It is thought that humans have 20,000—25,000 genes.
- There are about 19,000 genetic diseases.
- There are over 1200 clinical genetic tests.
- 32% of families with a strong history of breast cancer have a BRCA 1 or 2 gene change.
- About 99.9% of everyone's genetic information is identical.



Wake Forest University recently announced that they have a genetic test for prostate cancer. If the test is positive for a man with a strong family history of prostate cancer it could mean he

has a much higher chance for getting the disease. It will not tell him how quickly the cancer will grow. Should all men get this test for prostate cancer?

If you read about genetic testing in the newspaper, or hear about it on TV, you may think there are genetic tests for most common diseases. You may also think that anyone can get a test to find out if they are more likely to get a disease. At this time, genetic testing can only be done for a small number of common diseases. Breast cancer and colon cancer are examples of diseases for which genetic tests exist. These tests give useful information for only about 5% of the people who get these diseases.

The best way to learn if you are more likely to get a disease is to know your personal and family health history. Learning who in your family has a disease and how they are related to you can help you find

out if you should get a genetic test. You should also learn how old these

relatives were when they were diagnosed with the disease. Talk to your family to find out what diseases run in your family. Then, talk to your doctor.

If your doctor feels that you are more likely to get a disease, then you may be referred to a genetics specialist, such as a geneticist or a genetic counselor. This person will ask you about each family member. You will also be asked about the diseases that run in your family. If you have a strong family history of a disease you may be offered a genetic test. A strong family history generally means having:

- 2 or more close family members with a

It takes about 4-6 weeks to get a genetic test result back from the lab.

continued on next page

Genetic testing: is it right for me? (continued)

- disease,
- A family member who got a disease at an early age,
- A disease in a family member that does not usually affect that gender, such as a man with breast cancer, and
- A combination of diseases in a family, such as heart disease and diabetes.



A genetic test looks for a gene change that makes the risk of a disease more likely. Most genetic tests detect single gene disorders like sickle cell anemia or cystic fibrosis. No test exists for most common diseases. This is because common diseases are a result of a combination of genes and environmental and lifestyle factors. Therefore, a genetic test would not accurately predict the chance of disease for these conditions.

A genetic test can tell someone with a strong family history if the disease that they have is caused by a gene change. It can tell someone if they are more likely to get a disease. Other family members can also be affected by your test results. Your test results and what you were tested for can determine if other family

members may also be more likely to get a disease.

Genetic tests cannot tell someone at what age they will get a disease. It will also not tell someone how fast a disease will progress.

Everyone has a chance of getting some diseases, like colon cancer or breast cancer, even when they do not run in the family. Therefore, if you test negative for a disease that runs in your family, you still might get that disease.

Testing is a personal decision and getting a genetic test can be scary. After the results come back some people feel sad or depressed. Others feel relieved and happy. Before getting a genetic test you should think about how you will feel about the result, whatever it may be.

If you are thinking about getting a genetic test, ask yourself the following questions:

- Is genetic testing right for me?
- Do I have a strong family history that makes me more likely to get a disease?
- Will other family members be affected by my test results?
- How will I feel about getting a test result?
- What are the benefits of getting a genetic test?

Next Issue: If I get a genetic test, will my insurance company find out?



On the Web...

The Genomedical Connection
www.genomic-medicine.org

National Society of Genetic Counselors
www.NSGC.org

American Society of Medical Genetics
www.ACMG.net