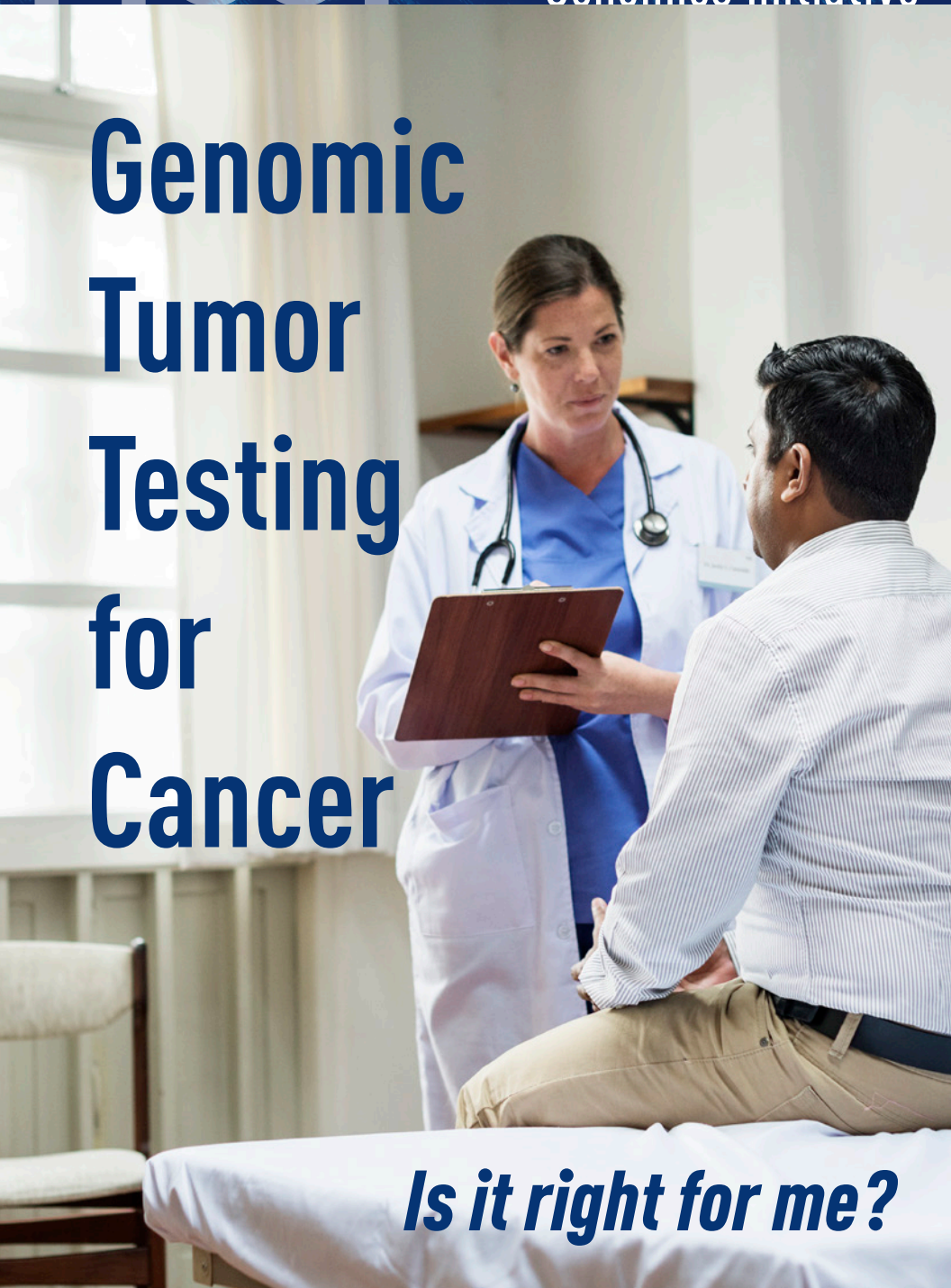
MCGI

The Maine Cancer Genomics Initiative

Genomic Tumor Testing for Cancer



Is it right for me?

Glossary of terms

Gene	An instruction that tells your body how to grow and work. Genes are made of DNA.
DNA	The substance in the cells that codes for the body's genes.
Cell	The building block of the body that contains DNA and genes.
Variant	A change in the gene's code. Variants, sometimes called mutations, can cause disease by changing how a cell grows or works. Variants can also be harmless and have no impact.
Genomic tumor test	A test that finds DNA variants that exist in cancer cells.

How do genomic changes cause cancer?

Our bodies are made up of trillions of cells. Each cell contains the set of instructions for our bodies to function, also known as your genes. You inherit your genes from your parents. Genes tell your cells how to grow and work and are made up of a substance called DNA. A complete set of genes is called a genome.

Cancer is due to changes, called variants, in a cell's genome. These variants cause that cell to grow in an uncontrolled way.

Researchers and doctors know some of the genomic variants that can cause cancer, but they do not know all of them.

What is genomic tumor testing?

Genomic tumor testing is used to find genomic variants that exist in cancer cells. Some of these variants may play an important role in how the cancer grows, spreads, and responds to treatment. Therefore, genomic tumor test results can sometimes help doctors choose the right medicines to treat a person's cancer.

Occasionally, genomic tumor testing can also find genomic variants that exist not only in cancer cells, but in the normal, noncancer cells of a person's body. These variants can be inherited (passed on from parent to child), and may be important to know about.

How is genomic tumor testing done?

Tumor tissue testing can usually be done on tissue that was already collected and stored as part of your medical care.

Genomic tumor testing is performed in a CLIA-certified laboratory. CLIA certification means that the laboratory meets federal regulatory standards for testing human samples. Your doctor will get a report about the variants found with genomic tumor testing. You and your doctor will decide how to use the information to guide your care.

What are the benefits of genomic tumor testing?

The results of genomic tumor testing may provide information on how your cancer is expected to act, and may help you and your doctor decide how to treat your cancer.

Are there risks to genomic tumor testing?

There is a possibility that knowing the results from your genomic test may cause you to feel anxious, disappointed or upset. This is because the result may:

- Not be helpful in deciding which medicines to use. Although some patients may benefit from genomic tumor testing, current studies suggest that most patients will not.
- Identify genomic variants that have uncertain meaning or significance for your treatment.
- Identify genomic variants that cannot be treated.
- Show that you are eligible for a medicine that your insurance does not pay.
- Show that you are eligible for a clinical trial that is only available at a hospital a distance from your home.
- Show that you may have a genomic variant that you inherited from one of your parents.
    - ◊ If your doctor is concerned about this, you may need another blood test. Your doctor sometimes orders this test, or you may be referred to see a genetic counselor.
    - ◊ If an inherited genomic variant is found some of your relatives may have inherited this variant and may be at risk for cancer or other disease.

What happens if I don't want genomic tumor testing?

Genomic tumor testing is your choice. Whether you decide yes or no, you will still get excellent care. If you decide not to have genomic tumor testing, you may be able to change your mind in the future.

How do I learn more about genomic tumor testing?

Ask your doctor about whether or not genomic tumor testing is right for you.

Notes

Support for this work:

The Maine Cancer Genomics Initiative (MCGI) is enabled through generous financial support from the Harold Alfond® Foundation. Learn more at *www.haroldalfondfoundation.org*.

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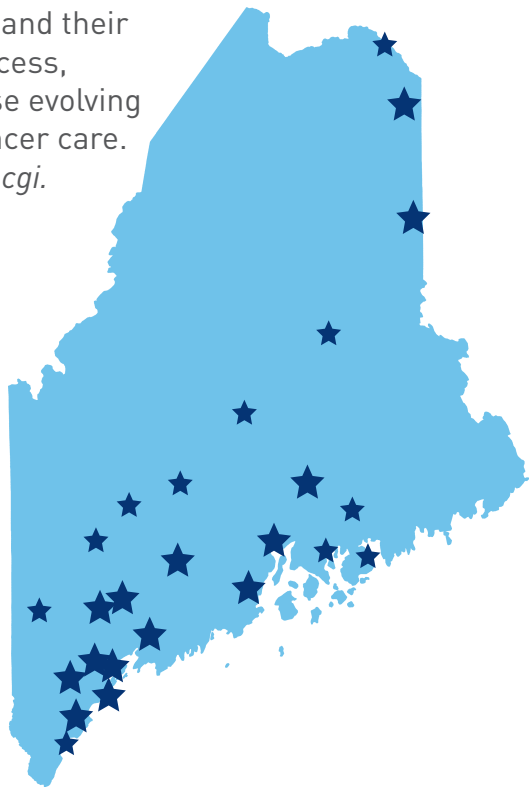
The Maine Cancer Genomics Initiative

A statewide partnership aimed at giving Maine cancer patients and their doctors the opportunity to access, understand and effectively use evolving genomic tumor testing in cancer care. Learn more at *www.jax.org/mcgi.*



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