What you need to know about **Biomarker Testing** for patients with non small cell lung cancer

What are biomarkers?

A biomarker can be found in your tissues, blood, or other body fluids, like fluid around your lungs. Biomarkers are errors or changes in a cell that cause cancer to grow.

Healthy Cells



Normal cells in the lungs divide in a controlled way. Cells with Biomarkers



Cells with certain biomarkers have errors (mutations) in their genes or changes in their protein levels that cause cells to divide in an uncontrolled way. This can cause lung cancer.

What is biomarker testing?

Biomarker testing is a way for your doctor to learn if your cancer cells have any biomarkers that help your cancer grow.

- Biomarker testing is sometimes called mutation testing, genomic testing, or molecular testing. These are all words that describe the same type of test.
- Biomarker testing is different from genetic hereditary risk testing, which only search for changes to your cells that may have been inherited.

To test your cancer for biomarkers, your team will use a previous biopsy (left over tissue from your body) or take a new tissue sample or liquid (blood) biopsy.

Why am I getting biomarker testing?

Testing helps your doctor choose the treatment what will work best for your unique type of cancer.

- Some cancers do not have biomarkers that can be targeted with a drug.
- Some cancers have biomarkers that show a targeted therapy may be effective. An example is immunotherapy biomarkers, such as the PD-L1 protein, which mean an immunotherapy drug may be an effective treatment.



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When should I have biomarker testing?	 In most cases, you should have biomarker testing when first diagnosed and get your results before starting treatment. You may have biomarker testing more than one time during your cancer journey. You may want to repeat testing if your current treatment stops working or if research finds new biomarkers that you haven't been tested for yet. If you didn't have biomarker testing before you started treatment,
	it may not be too late.
What happens after the tissue or blood are collected?	Once the tissue or blood sample is collected, it is sent to a laboratory for testing. Biomarker testing results are analyzed by a pathologist. These laboratory results are sometimes added to a pathology report or available as a separate biomarker testing results report.
	It is a good idea to have access to your report online or get a copy of your report to show other doctors.
How long does biomarker testing take?	The test results can take about two weeks to be received by your doctor. Waiting for complete results can be stressful.
What happens after I receive results?	Your doctors should talk to you about what your biomarker testing results mean. Some of the most important questions to know the answers to are:
	 What do my results mean for my treatment plan? Are there any medications that target my type of lung cancer? Are there any clinical trials open to me based on these results? Will I need these tests again? If so, why? When?
How much does biomarker testing cost?	Some insurance providers cover the cost of biomarker testing. There might be financial assistance programs available to you. Ask to speak to a financial navigator about these resources.

If you would like more information on non-small cell lung cancer, treatment

options, or resources for additional support, please visit:

LUNGevity: <u>www.lungevity.org</u>

Cancer.Net: https://www.cancer.net/cancer-types/lung-cancer-non-small-cell

NCCN patient guidelines: https://www.nccn.org/patients/guidelines/content/PDF/lung-metastatic-patient.pdf