Frequently asked questions:

Biomarker testing in metastatic breast cancer

Biomarkers are specific cancer characteristics, such as proteins and changes in tumor cell DNA, that affect the way cancer cells grow and multiply. If you have been diagnosed with metastatic breast cancer, your doctor can recommend biomarker tests that provide more information about the cancer. Each person’s cancer is highly individual. Biomarker tests on tumor tissue or blood can help you and your doctor pinpoint which treatment options may be right for you.

What if I already received biomarker testing?

Some biomarker tests—such as tests for ER, PR, and HER2 receptors—are routinely performed after a biopsy. It is okay to ask your doctor what biomarker tests, if any, have been performed and if they should be repeated.

Having the most up-to-date information about your cancer means you can work together with your doctor to choose the most effective treatments.

What are the types of metastatic breast cancer biomarkers?

There are many types of biomarkers in metastatic breast cancer. Doctors may test for these when it’s time to make treatment decisions. The list below contains several commonly tested metastatic breast cancer biomarkers.

- **ER: Estrogen receptors**
- **PR: Progesterone receptors**
- **HER2: Human epidermal growth factor receptor 2**
- **AKT1 mutations**
- **ESR1 mutations**
- **NTRK gene fusion**
- **PD-L1 protein expression**
- **PIK3CA mutations**
- **PTEN alterations**
- **RET fusion**

To learn more about these biomarkers, visit [lbcc.org/biomarker](http://lbcc.org/biomarker)
When should I talk to my doctor about testing?

Ask your doctor about biomarker testing **before beginning a new treatment**. This can be when you are newly diagnosed with metastatic breast cancer or if the cancer grows or spreads.

Because research is always advancing, there might be new tests and treatments available now that weren’t available in the past. Asking about testing when starting a new treatment is also important because biomarker status can change. For example:

An initial early-stage breast cancer may be hormone receptor-positive. If it comes back as metastatic breast cancer, a new biopsy and biomarker test could show that the cancer is now hormone receptor-negative.

What if I need help understanding my test results?

You have the right to know and understand your test results. If your results seem confusing, don’t be afraid to ask questions. Always check with your healthcare team if you’re unsure.

How will my test results inform my treatment?

Your test results will help you and your healthcare team choose an effective treatment plan based on:

- The presence or absence of specific biomarkers in the cancer
- Your overall health history
- Other factors your doctor may discuss with you

In addition to a treatment plan, the test results may make you eligible to participate in a **clinical trial**. Clinical trials are research studies that test potential new treatments. A clinical trial may allow you to try a new treatment that targets a specific biomarker.
How will I pay for biomarker testing?

Commercial insurance plans generally cover biomarker testing if the test is FDA-approved, meets coverage guidelines, and the results will impact treatment decisions. However, plan terms vary and there are no consistent minimum coverage requirements. Learn more about understanding health insurance with metastatic breast cancer here.

Are there other tests my doctor may recommend?

Yes. There are many tests performed as part of breast cancer diagnosis and treatment. These may include imaging tests, blood tests, and tests for inherited genetic mutations passed down from a parent. Learn more about testing.