What Is Microarray Testing?

The human body contains genetic information that is bundled into packages called chromosomes. Genetic information within each chromosome tells a person’s body how to grow and develop. Changes in the amount of genetic information, such as extra or missing pieces of a chromosome, may cause medical conditions such as birth defects, delays in early development, learning difficulties, autism or other medical issues.

When an entire chromosome is extra or is missing, this often leads to a miscarriage. Approximately 1 in 5 clinically recognized pregnancies end in miscarriage, and of early pregnancy losses, approximately 50% have a significant chromosomal abnormality.

Microarray testing is an advanced technique used to evaluate miscarriage tissue for chromosomal abnormalities.

Microarray testing has a higher success rate in determining whether a chromosomal abnormality was the cause of the pregnancy loss compared to traditional testing, such as karyotyping or FISH.

About CombiMatrix

CombiMatrix is a genetic testing laboratory whose mission is to provide specialized genetic tests that make a difference. Our testing services provide patients and physicians with information that can assist in making more informed care decisions.
Microarray Analysis for Pregnancy Loss

If you have had two or more miscarriages, your doctor may suggest microarray testing on tissue from your miscarriage. The test results can help provide more information regarding the cause of the miscarriage.

Microarray testing can help you to:
- Know whether the miscarriage was due to a chromosomal abnormality
- Learn whether there is an increased risk for future pregnancies
- Work through the grieving process by answering the question “Why?”

Prior to or following microarray testing on miscarriage tissue, it may be recommended that individuals who have experienced recurrent pregnancy loss undergo karyotyping themselves to rule out the possibility of a balanced rearrangement of chromosomal information. Such rearrangements can lead to an increased risk for unbalanced chromosomal rearrangements in future pregnancies.

How Is Microarray Testing Performed?
Microarray testing for pregnancy loss can be performed on two sample types:
1. Fresh miscarriage tissue (preferred)
2. Formalin-fixed, paraffin-embedded (FFPE) miscarriage tissue

Your doctor will determine which type of sample will be sent.

What Are the Types of Test Results?
There are typically three types of microarray analysis test results:

Normal: A normal test result means that microarray testing did not detect any chromosomal abnormalities.

Abnormal: An abnormal test result means that microarray testing did detect extra or missing chromosomal information. If your test result is abnormal, your doctor will provide more specific information about the abnormality detected and whether studies on you and your partner are recommended.

Variant of Uncertain Significance (VOUS): A VOUS result means that chromosomal microarray testing identified extra or missing genetic information but that this change is not well understood or is very rare. In this situation, it is not possible to determine with certainty whether the change to the chromosomal information was the cause of the miscarriage. In some situations, studies on you and your partner may be required for further clarification.

What Is the Chance That the Test Result Will Be Abnormal?
About 50% of early (first trimester) miscarriages have a chromosomal abnormality. If your pregnancy loss occurred after the first trimester, your doctor will discuss the chances for an abnormal result with you based on your specific situation.

How Long Will It Take to Get My Test Results?
Microarray testing typically takes 7-10 days from the time the tissue sample is received by our laboratory. The results will be returned to the doctor who ordered the test. Your doctor will review the test results with you.

Will My insurance Cover Microarray Testing?
Some insurance companies will pay the full cost of microarray testing, while others may pay only a portion of the cost. CombiMatrix accepts samples from all patients with commercial health insurance coverage and will bill your insurance company directly on your behalf. We strive to minimize your financial burden and offer flexible payment plans to help make microarray testing affordable for you and your family.

Additional Questions?
If you still have questions or want to learn more, speak to your doctor, genetic counselor or other healthcare provider.

Additional information is also available on our website at www.combimatrix.com.