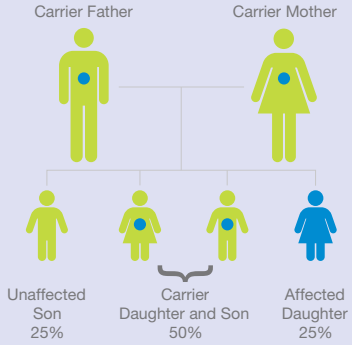
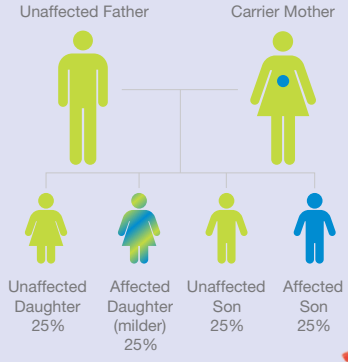
Autosomal Recessive Disorders

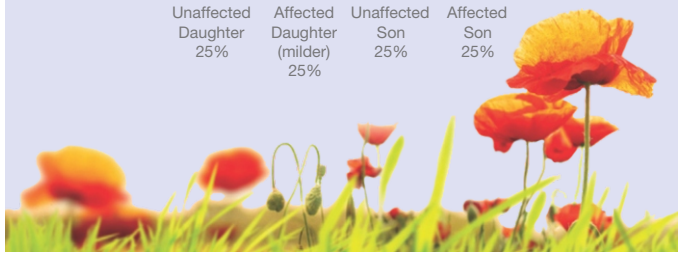
In general, every child inherits two copies of each gene, one from their mom and one from their dad. If two people who are carriers for the same disorder have children together, they have a 1 in 4 (25%) chance in each pregnancy of both passing on their gene mutations and to have a child affected with the disorder.



X-linked Disorders

Women have two X chromosomes, while men have one X and one Y chromosome. Only women can be carriers of X-linked disorders; carriers have a 1 in 2 (50%) chance in each pregnancy of passing an abnormal gene to their children. Sons that inherit an X-linked gene mutation from their mother will have the disorder because they only have one X chromosome. Fragile X syndrome is a unique X-linked condition. Males inheriting the gene mutation will have the syndrome while females inheriting the gene mutation may be less severely affected than males or may not have symptoms at all.





Natera Offers Screening for the Following Disorders:

Cystic Fibrosis is a serious childhood disease with severe breathing difficulties, repeated lung infections and permanent lung damage, digestive problems and other complications.

Fragile X (carrier screening offered for females only) is an X-linked disorder. It is the most common inherited form of intellectual disability and is associated with autistic-like behaviors, emotional and behavioral problems. Fragile X affects males more commonly than females.

Bloom Syndrome is a severe childhood-onset condition associated with growth delay, sensitivity to sunlight, immune deficiency, increased risk for certain cancers and, occasionally, intellectual impairment.

Canavan Disease is a worsening neurological disorder, fatal in early childhood.

Familial Dysautonomia causes incomplete development of the nervous system resulting in multiple problems including motor delays, low muscle tone, and lifethreatening nervous system crises.

Fanconi Anemia, Type C causes progressive childhood-onset anemia, multiple birth defects, and increased risk for certain types of cancer. Gaucher Disease may have onset in early childhood, or later in life. Bone fractures, anemia and enlarged spleen and liver are seen in the most common form of this condition.

Glycogen Storage Disease, Type 1A is a severe disorder with onset in infancy. It is associated with an enlarged liver, hypoglycemia (low blood sugar), growth problems, and life-threatening complications including kidney and pancreatic dysfunction, and blood disorders.

Mucolipidosis, Type IV causes childhood-onset growth delays, severe intellectual disability, eye problems, and in some cases, may result in early death. Niemann-Pick Disease, Type A is a severe and progressive neurological disorder and is fatal in early childhood.

Sickle Cell Anemia causes chronic anemia, severe pain, tendency toward infections and other serious health problems (testing identifies hemoglobin S and C trait).

Spinal Muscular Atrophy (SMA) is a serious childhood condition that causes worsening muscle weakness, decreased ability to breathe and loss of motor skills.

Tay-Sachs Disease is a condition that presents in the first year of life with rapid neurological deterioration and is fatal in early childhood.

We're Here For You

For more information on carrier screening talk to your health care provider or contact Natera to speak with one of our Certified Genetic Counselors. You can also visit our website at www.natera.com.

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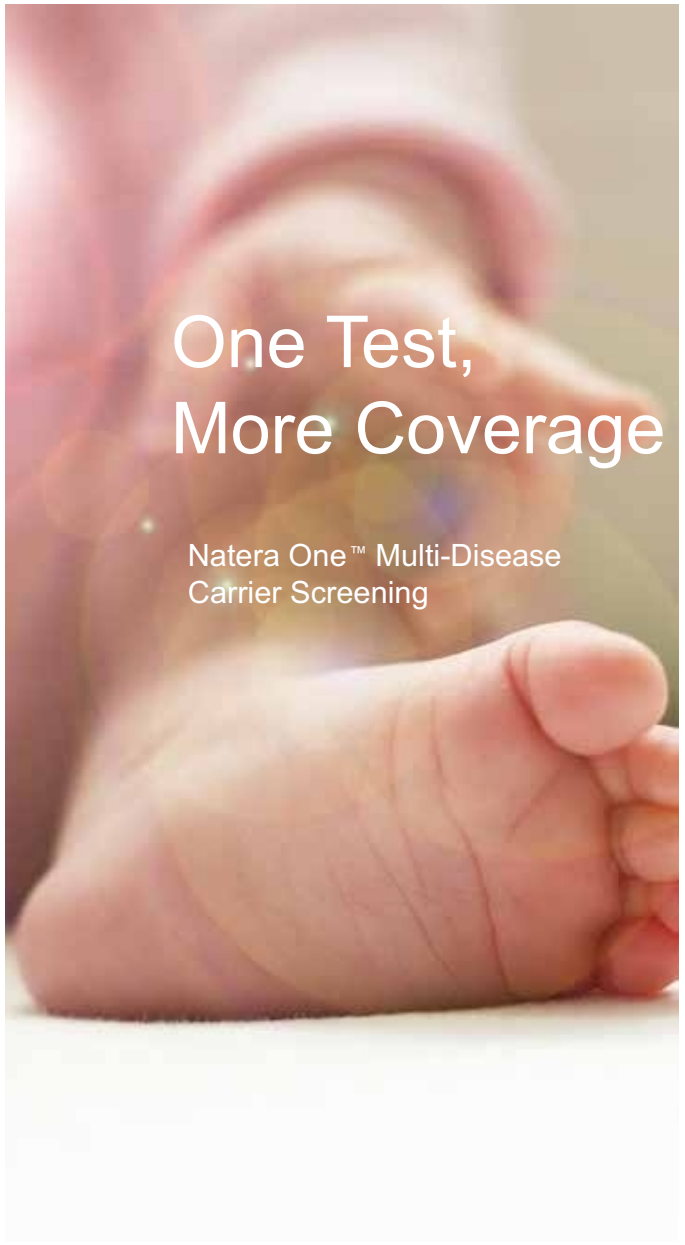

PATHOLOGISTS LANCET LABORATORIES
Key to Diagnostic Excellence

natera™
Conceive. Deliver.

Understanding Carrier Screening

Natera One™ is a genetic test that can determine if you are a carrier of a genetic disorder. Carriers are typically healthy and have no symptoms, but have an increased chance to have a child with a genetic condition. Natera One can test for two types of genetic disorders, autosomal recessive and X-linked. All the disorders on the Natera One panel are severe and cause symptoms in early childhood.

What Causes a Genetic Disorder?

A genetic disorder is caused by a change, or mutation, in a particular gene or pair of genes, which causes that gene or gene pair to function improperly or not function at all. When a gene or gene pair doesn't work correctly it prevents the body from developing normally. With autosomal recessive conditions a pair of non-working genes can cause a genetic disorder and in X-linked conditions a single non-working gene can cause a genetic disorder.

What if There Are No Disorders in My Family?

Carriers are typically healthy and have no symptoms. With autosomal recessive conditions the mutation (gene change) can be passed on for generations without an affected family member until two people who are carriers for the same genetic condition have an affected child. Most people only become aware that they are carriers after having a child with a genetic disorder, or through carrier screening.

Is Carrier Screening Right for You?

Anyone planning a pregnancy or who is cu-r rently pregnant can choose to have genetic carrier screening. Carrier screening is recommended by multiple medical associations including the American College of Medical Genetics (ACMG) and American College of Obstetricians and Gynecologists (ACOG). Some patients and physicians may opt to screen for additional disorders.

The Natera Difference

At Natera we believe in responsible carrier screening, which means testing for inherited disorders and mutations that have a known effect and cause serious genetic disease. We have selected disorders for Natera One based on the recommended screening guidelines from ACMG and ACOG. Natera One is a responsible multi-disease screening panel. With Natera you know what your results mean and can feel confident in your test.

How Is Carrier Screening Performed?

Carrier screening requires only a simple blood draw and a referral form that is completed by your physician. Results are typically returned within 10 business days.

Can I Have an Affected Baby if I Screen Negative?

A negative (normal) result means we did not find any of the mutations screened for, and you have a reduced chance to have a child affected with the genetic disorders screened. However, a limitation of all carrier screening is that it cannot detect all gene mutations that could be present. Carrier screening is designed to detect the most common mutations people are likely to carry. Your test results will provide the "residual risk" or remaining chance that you are still a carrier for the disorder despite a negative test result.

What if We Are Both Carriers?

Finding out you are at risk of having a child with a serious genetic condition can be distressing. We cannot change our genes — but knowing this info-r mation gives you more control over your reproductive options. Each couple is different, and the ideal option depends on your own desires and values. Here are some different reproductive options that can be considered:

- Conceive naturally
- Prenatal testing
- In Vitro Fertilization (IVF) with Preimplantation Genetic Diagnosis (PGD)
- Conceive with donor sperm or eggs
- Choose to adopt
- Choose not to have children