

## Common questions

### What is Panorama?

Panorama is a non-invasive prenatal test (NIPT) that can tell you important information about your pregnancy, as early as nine weeks' gestation. With Panorama, you can find out if your baby is at risk for chromosomal abnormalities, such as Down syndrome. If you so choose, you may also find out the sex of your baby.

### How does the Panorama prenatal screen work?

During pregnancy, small pieces of DNA from the baby's placenta cross into mom's bloodstream. Panorama uses a blood sample taken from the mother's arm to analyze the baby's DNA for certain chromosomal conditions that could affect the baby's health. Panorama poses no risk to your baby, unlike amniocentesis and CVS (chorionic villi sampling), which carry a slight risk of miscarriage.

### What conditions does Panorama screen for?

Currently, the test screens for:

- **Trisomy 21 (also called Down syndrome):**  
This is caused by an extra copy of chromosome 21. This is the most common genetic cause of intellectual disability. It may also cause certain birth defects of the heart or other organs and may cause hearing or vision problems.
- **Trisomy 18 (also called Edwards syndrome):**  
This is caused by an extra copy of chromosome 18. Most babies with Edwards syndrome usually pass away before one year of age. Survivors have severe intellectual disability. It also causes serious birth defects of the heart, brain and other organs.
- **Trisomy 13 (also called Patau syndrome):**  
This is caused by an extra copy of chromosome 13. Babies with Patau syndrome usually pass away before one year of age. Survivors experience severe intellectual disability. It also causes many serious birth defects.
- **Monosomy X (also called Turner syndrome or 45, X):**  
This is caused by a missing X chromosome and affects only girls. Girls with Monosomy X may have heart defects, hearing problems, minor learning disabilities and are usually shorter than average. As adults, they are often infertile.

- **Triploidy:**

This is caused by having an extra set of all 23 chromosomes (for a total of 69 chromosomes) and is associated with severe birth defects. A triploid pregnancy can cause serious complications for the mother, such as excessive bleeding after delivery and a risk of developing cancer. Babies with triploidy rarely make it to term and those that do usually pass away within a few months after delivery. It is important for the doctor to know about triploidy, even if the mother miscarries, so that she can be monitored for complications.

- **Klinefelter syndrome (also called 47, XXY):**

This is caused by an extra copy of the X chromosome in boys. Boys with Klinefelter syndrome may have learning disabilities, tend to be taller than average, and most men with this condition are infertile.

- **Triple X syndrome (also known as 47, XXX):**

This is caused by an extra copy of the X chromosome in girls. Some girls with triple X syndrome have learning disabilities, and most are taller than average.

- **XYY syndrome (also called Jacob's syndrome or 47, XYY):**

This is caused by an extra copy of the Y chromosome, and only affects boys. Boys with this condition tend to be taller than average and may have associated mild learning and behavioral difficulties.

- Panorama also screens for *ve* microdeletion syndromes which are described on the next page.

### What kind of results will I get from the Panorama screening test?

The report sent to your healthcare provider will have one of these results:

- **LOW-RISK RESULT:**

A low-risk result means the chance that your baby has one of the chromosome conditions Panorama screens for is very low, which can be reassuring. Most women who have the Panorama screening test will discover their baby is at low risk for the conditions tested.

- **HIGH-RISK RESULT:**

A high-risk result means there is an increased risk that your baby has a particular condition. Your healthcare provider will talk to you about follow-up testing options, so you can determine if your baby is affected.

- There is also a small chance that **NO RESULT** will be obtained from your initial sample. In this case, we may recommend sending us another blood sample for re-testing.

## When will I get my results?

Most results will be returned within 5 to 7 days.

## What are microdeletions? Which ones does Panorama screen for?

A small, missing (or “deleted”) piece of a chromosome is called a microdeletion. Unlike Down syndrome, which occurs more frequently in mothers who are 35 and older, microdeletions occur in pregnancies at the same rate for mothers of any age.

In many cases, there are no obvious ultrasound abnormalities that would suggest the baby has a microdeletion. While many microdeletions have little impact on a child’s health and life, there are some that can cause intellectual disabilities and birth defects.

Panorama screens for five microdeletions, all of which can be associated with serious health issues:

- **22q11.2 deletion syndrome (also called DiGeorge syndrome):**  
Babies born with 22q11.2 deletion syndrome often have heart defects, low blood calcium levels, immune system problems, and mild-to-moderate intellectual disability. They may also have kidney problems, feeding problems, and/or seizures.
- **1p36 deletion syndrome:**  
Babies born with 1p36 deletion syndrome have weak muscle tone, heart and other birth defects, intellectual disabilities, hearing loss and behavior problems. Roughly half of these babies will also have seizures.
- **Angelman syndrome:**  
Babies born with Angelman syndrome often have delayed milestones (like sitting, crawling, and walking), seizures, and problems with balance and walking. They also have severe intellectual disability, and most do not develop speech.
- **Cri-du-chat syndrome (also called 5p minus):**  
Babies born with Cri-du-chat syndrome typically have low birth weight, small head size, and decreased muscle tone. Feeding and breathing difficulties are also common. They also have moderate-to-severe intellectual disability.
- **Prader-Willi syndrome:**  
Babies born with Prader-Willi syndrome have low muscle tone and problems with feeding and gaining weight. They also have intellectual disability. As children and adults, they may develop an over-eating disorder resulting in obesity-related medical problems.

## Who should get the Panorama prenatal screen?

Many pregnant women want to know about the health of their babies. If you would like information about your baby’s health, talk with your healthcare provider. He or she will advise you as to what tests you might want to have to help give you peace of mind.

The Panorama prenatal screen is designed for women of any age and ethnicity who are at least 9 weeks pregnant. It cannot currently be used by women who are carrying more than two babies (for example, triplets), multiples conceived using a donor egg or a surrogate, or those who have received a bone marrow transplant.

## What are the alternatives to the Panorama prenatal screen?

Panorama is not the only screening test available during pregnancy. Older screening tests that measure hormones in a pregnant woman’s blood (often called maternal serum screening tests) can also tell you if there is a high chance your baby has a chromosomal condition, such as Down syndrome. Maternal serum screening tests are less accurate than Panorama when screening for the conditions above. This means that serum screening tests are more likely than Panorama to miss certain chromosomal conditions or indicate an abnormal chromosomal condition when none exists.

Panorama is a screening test; it is not a diagnostic procedure. This means that test results from Panorama only alert you if your baby is at higher or lower risk for a chromosomal condition. Invasive diagnostic testing, such as amniocentesis and CVS (chorionic villi sampling), is necessary to know for certain whether the baby has a chromosomal condition. These tests carry a slight risk of miscarriage.

Learn more at [www.natera.com/panorama-test](http://www.natera.com/panorama-test)

13011 McCallen Pass, Building A Suite 100 | Austin, TX 78753 | [natera.com](http://natera.com)

Panorama has been developed and its performance characteristics determined by the CLIA-certified laboratory performing the test. The test has not been cleared or approved by the US Food and Drug Administration (FDA). CAP accredited, ISO 13485 certified, and CLIA certified. © 2022 Natera, Inc. All Rights Reserved. PAN\_FS\_Panorama Patient FAQ\_20220127\_NAT-9000048

