MaterniT®

# Non-Invasive Prenatal Testing

Insights into your baby's health as early as nine weeks into your pregnancy

Dynacare®

Genetics and Specialty Services

During pregnancy, your blood contains small fragments of your fetus' DNA. Non-Invasive Prenatal Testing (NIPT) analyzes this DNA in a sample of your blood to determine the risk of certain chromosome conditions in the baby.

## What are Chromosomes?

Chromosomes carry genetic information that tells our bodies how to grow, develop and function. Humans typically have 23 pairs of chromosomes.

## Why Screen for Chromosomal Conditions in Pregnancy?

The health and development of a baby may be impacted by having an extra copy or a missing copy of a chromosome, including smaller pieces of chromosomes. For example, having an extra copy of a chromosome is called trisomy. A common example of this is trisomy 21, also known as Down syndrome.

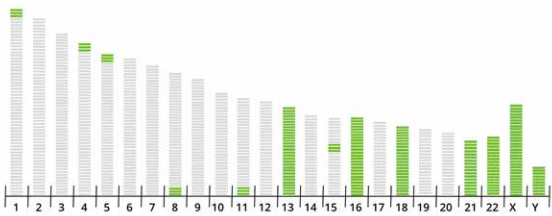
Early identification of a chromosome condition may impact pregnancy management or help expectant parents prepare.

# MaterniT® 21 PLUS

Highly reliable, this test includes screening for trisomy 21 (Down syndrome), trisomy 18 (Edwards syndrome) and trisomy 13 (Patau syndrome).

## Multiple screening options available:

- Fetal sex
- Sex chromosome conditions (SCA)+
- Enhanced Sequencing Series (ESS)+: Analysis of 7 clinically relevant microdeletions, trisomy 22, and trisomy 16, which are relatively rare but may impact baby's health or pregnancy outcomes.




Chromosomes

+ Singleton pregnancies only

| MaterniT® 21 PLUS | Estimated Live Births Affected |
|---|---|
| Fetal sex* | N/A |
| Trisomy 21 (Down syndrome) | 1 in 700[1] |
| Trisomy 18 (Edwards syndrome) | 1 in 5,000[1] |
| Trisomy 13 (Patau syndrome) | 1 in 16,000[1] |
| Sex Chromosome Conditions* (SCA) | |
| 45,X (Turner syndrome) | 1 in 2,000 females[1] |
| 47,XXY (Klinefelter syndrome) | 1 in 650 males[1] |
| 47,XXX (Triple X syndrome) | 1 in 1,000 females[1] |
| 47,XYY (XYY syndrome) | 1 in 1,000 males[1] |
| Enhanced Sequencing Series (ESS)* | |
| 22q11.2 deletion syndrome | 1 in 4,000[1] |
| 5p15 (Cri-du-chat syndrome) | 1 in 20,000 to 50,000[1] |
| 1p36 deletion syndrome | 1 in 5,000 to 10,000[1] |
| 15q11 (Prader-Willi syndrome) | 1 in 10,000 to 30,000[1] |
| 15q11 (Angelman syndrome) | 1 in 12,000 to 20,000[1] |
| 11q23 (Jacobsen syndrome) | 1 in 100,000[1] |
| 8q24 (Langer-Giedion syndrome) | Rare[1] |
| 4p16 (Wolf-Hirschhorn syndrome) | 1 in 50,000[1] |
| Trisomy 16 | Rare (almost all cases result in miscarriage)[2] |
| Trisomy 22 | Rare (almost all cases result in miscarriage)[3] |

* Optional

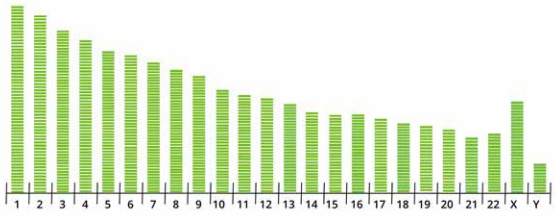
**References:** **1.** Prevalence data obtained from MedlinePlus.gov, accessed on July 5, 2024. **2.** Disorders of Chromosome 16 Foundation. A brief (and basic) overview of Chromosome 16 disorders. 2011. http://www.trisomy16.org/about/ what_are_doc16.html. Accessed July 5, 2024. **3.** Heinrich T, Nanda I, Rehn M, et al. Live-born Trisomy 22: Patient report and review. Mol Syndromol. 2013 Jan; 3(6): 262–269.

# MaterniT® GENOME

This test analyzes all 23 pairs of chromosomes for extra or missing copies, including smaller pieces of chromosomes, and fetal sex (optional).

MaterniT® GENOME is recommended for high risk pregnancies as it is up to 30% more likely to help your healthcare provider find the cause of other abnormal blood work or ultrasounds.

**GENOME - Flex Option:** Genome-wide sample reanalysis is available upon request after completion of MaterniT®21 PLUS during the pregnancy.




Chromosomes

| Testing / Screening | MaterniT® 21 PLUS | MaterniT® GENOME |
|---|---|---|
| Trisomy 13, 18, 21 | ✓ | ✓ |
| Fetal sex | ✓* | ✓* |
| Sex Chromosome Abnormalities (SCAs)* | ✓* | ✓ |
| Microdeletions | ✓* x7 | ✓ x7 targeted, anything ≥ 7Mb |
| Trisomy 16, 22 | ✓* | ✓ All 23 chromosomes |
| Genome-wide with Subchromosomal Copy Number Variants* (CNVs) | | ✓ Same resolution as karyotype |
| Twins | ✓ | |
| Multifetal >2 fetuses | ✓ | |
| Accepts samples with vanishing twin | ✓ | ✓ |
| IVF and donor eggs | ✓ | ✓ |
| Mosaicism ratio | ✓ | ✓ |
| Gestational age available | 9 weeks | 9 weeks |
| Turn-around time | 7-10 days | 7-10 days |
| Effective with high maternal weight | ✓ | ✓ |

*Optional
*Singleton pregnancies only

# How to Order Test

**Step 1 – Choose your Test Online**
Scan QR code to visit DynacarePlus.com and pay for test online.

**Step 2 – Obtain a Signed MaterniT® Requisition**
Download the MaterniT® requisition form and have it signed by your healthcare provider.

**Step 3 – Provide your Sample**
For sample collection instructions in your area, visit Dynacare.ca/PrenatalTesting, or call 888.988.1888

**Step 4 – Get Results**
Results will be sent to your healthcare provider once available (within 10 business days). You can also visit DynacarePlus.com to view your results online. With your test purchase, you will receive a free Dynacare Plus membership valid for 1 year.

# Understanding Your Results

- **Negative** - The pregnancy is not at an increased risk of being affected by the chromosome conditions screened; however, this result does not guarantee a healthy baby.
- **Positive** - The pregnancy is at an increased risk for a certain chromosome condition. Diagnostic testing, such as chorionic villus samples (CVS) or amniocentesis along with genetic counselling, is highly recommended to confirm NIPT results.

MaterniT® NIPT provides a risk assessment. The result is not diagnostic. False positives and false negatives may occur, and each result should be considered in the context of other clinical results, ultrasound findings, and family history. Please note this test does not screen for all possible genetic conditions.

**Ask your healthcare provider if MaterniT® prenatal screening is right for you.**

# Have Questions?

For any questions, talk to your healthcare provider or contact Dynacare at:

**888.988.1888**

**DynacareGenetics@Dynacare.ca**

**Dynacare.ca/PrenatalTesting**