

# Gynecology And Obstetrics

Information for health professionals



## TOMORROW non invasive prenatal test

TOMORROW Prenatal Test is CGC Genetics' solution for non-invasive prenatal testing. This is a non-invasive method that tests for fetal trisomy of chromosomes 21, 18 and 13, to identify fetal gender and to detect aneuploidies of sex chromosomes (monosomy X, XXX, XXY, XYY).

### EARLY DETECTION

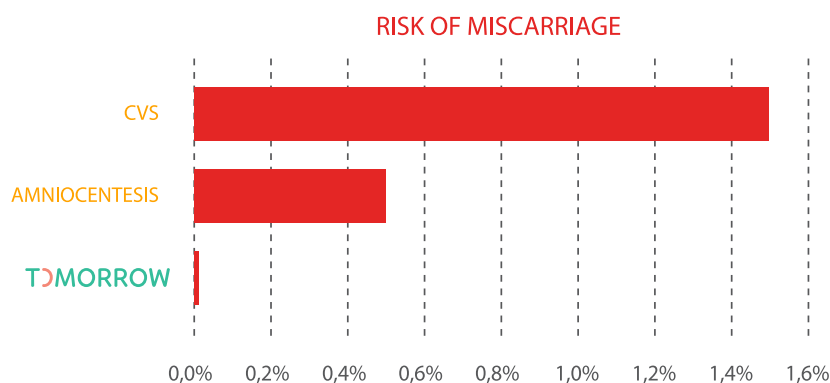
Test can be performed as early as 10 weeks of gestation.

### SIMPLE

Only a simple blood collection is required, with no prior preparation.

### SAFE

Performing the test has no risk of miscarriage, commonly associated with invasive methods.



### TURNAROUND TIME

Report ready in 6 business days on average (max 10).

### TWIN PREGNANCY

Trisomy detection for chromosomes 21, 18 and 13 can also be performed in twin pregnancies (two fetuses).

### IVF/EGG DONATION

TOMORROW Prenatal Test can be performed in IVF/egg donations.

## FETAL FRACTION

Includes fraction of fetal DNA estimated to be present in the analyzed sample, in accordance with the latest recommendation of the American College of Medical Genetics (ACMG).

## RELIABLE TEST

There are important differences between noninvasive prenatal tests that you should take into account in your decision. TOMORROW is an accurate test with a false positive and false negative rate of less than 0.5%.

	Sensitivity	Specificity
Trisomy 21	99.14%	99.94%
Trisomy 18	98.31%	99.90%
Trisomy 13	98.15%	99.95%
Monosomy X	95.00%	99.00%

## MOST ADVANCED TECHNOLOGY

TOMORROW uses state-of-the-art genetic analysis technology: the Next Generation Sequencing (NGS) to analyze circulating free DNA in maternal blood. From a sample of maternal blood, the circulating DNA, maternal and fetal-placental DNA, is sequenced and the number of specific sequences of each of the chromosomes of interest is determined. A complex bioinformatic analysis allows the copy-number of each of the chromosomes of interest to be calculated.

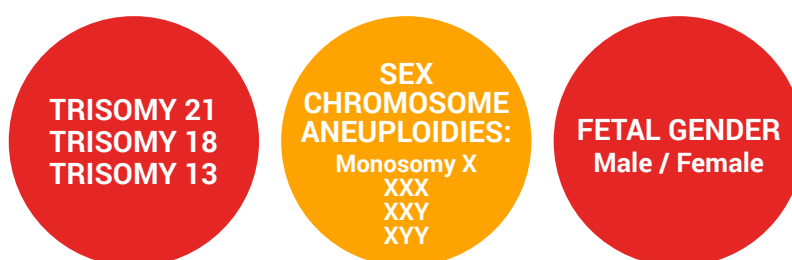
## FREE OF CHARGE CONFIRMATION

In case of increased risk, confirmation of the result with invasive prenatal testing is recommended. For such cases, CGC Genetics provides QF-PCR analysis (24-48 hours), and chromosome analysis (karyotype). Confirmation analyzes in these cases are performed free of charge.

### PLEASE NOTE:

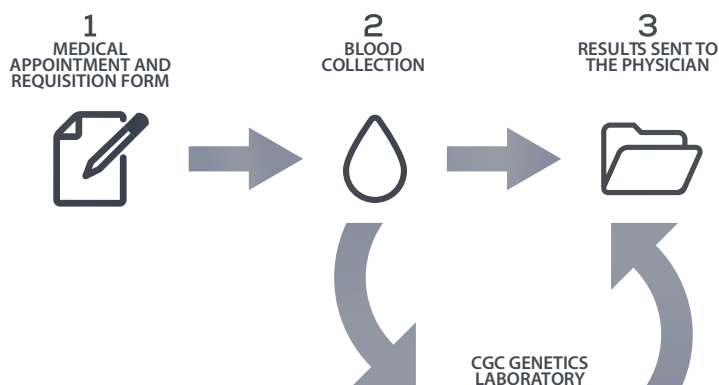
TOMORROW Prenatal Test is not available in USA, Canada, China and Japan.

## TOMORROW TEST DETECTS



### TOMORROW in three simple steps:

1. Blood collection from week 10 of gestation.
2. Send blood sample (7-10 mL) for analysis, collected in the supplied tube.
3. Receive the test results in 6 working days (maximum 10).



For Gynecology and Obstetrics, CGC Genetics offers a list of tests integrated in multiple aspects:

## PRENATAL DIAGNOSIS

- **Array CGH.** Chromosomal analysis through a microarray, or array CGH, is a high resolution analytical method that allows a detailed study of the whole genome, and can detect deletions and duplications not visible under the microscope. The solution provided by CGC Genetics has the highest analytical resolution along with the clinical interpretation of results ensured by our medical geneticists.

We have array CGH with the resolution that best suits cases of prenatal diagnosis. International recommendations on the use of this prenatal test are:

- > Structural ultrasound abnormalities;
- > Increased nuchal translucency;
- > Apparently balanced translocations and inversions, and other structural chromosomal rearrangements;
- > Family studies - search for familial microdeletions /microduplications in the fetus.

- **NGS panels.** CGC Genetics has several NGS panels available which allow, in a single test, to sequence several genes associated with a pathology or phenotype. In particular for prenatal diagnosis, we provide the following NGS panels:

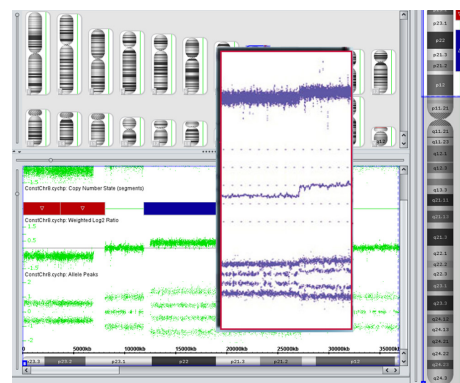
- > Craniosynostoses (NGS panel for 5 genes),
- > Noonan syndrome and Noonan spectrum (NGS panel for 9 genes),
- > Skeletal dysplasias (NGS panel for 6 genes).

- **Chromosome Analysis (Karyotype)** in amniotic fluid or chorionic villus sample.

- **QF-PCR (Quantitative Fluorescence Polymerase Chain Reaction)** for fast testing of the most frequent aneuploidies (on chromosomes 13, 18, 21, X and Y) in amniotic fluid or chorionic villus.

- **Familial genetic studies** - search for familial mutations in the fetus

- **Genetic diagnosis** - in the presence of structural alterations compatible with specific genetic disease.



## COMBINED PRENATAL SCREENING

The prenatal screening allows the identification of pregnant women at increased risk for major trisomies: 21, 18 and 13. This test combines values of biochemical parameters (free  $\beta$ hCG and PAPP-A) with echographic parameters (nuchal translucency and nasal bones).

## ONCOLOGY, INCLUDING BREAST CANCER

- Sequencing analysis of BRCA1 and BRCA2 genes
- Del/Dup analysis of BRCA1 and BRCA2 genes
- Familial mutations of hereditary cancer
- Sequencing panel for 10 genes associated with breast / ovarian cancer
- Sequencing panel for 26 genes associated with breast / ovarian cancer

## EMBRYOFETAL PATHOLOGY

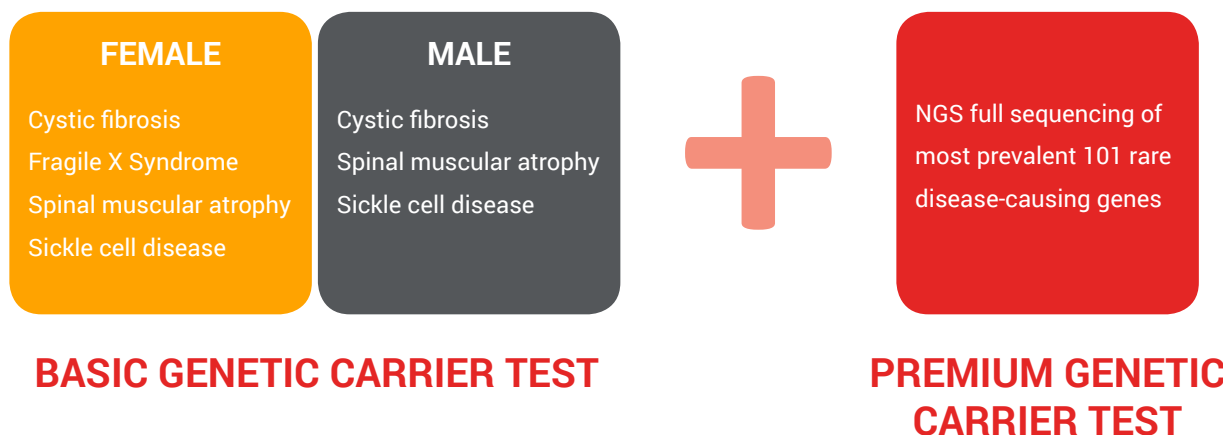
This laboratory preferably performs examinations in the areas of obstetric surgical pathology and autopsy, namely:

- Early abortion: embryo and gestational sac (<11 weeks)
- Placenta
- Fetal / neonatal autopsy (> 11 weeks)
- Surgical specimens (ectopic pregnancy and uterine pathology of pregnancy)

## INFERTILITY

- Etiologic study of infertility (premature ovarian failure, Y chromosome microdeletions, congenital bilateral agenesis of vas deferens, 21-hydroxylase deficiency, and peripheral blood karyotype)
- Thrombophilia study

## CARRIER STUDY



## OTHER STUDIES

For Gynecology and Obstetrics, CGC Genetics has an extensive list of genetic tests in addition to these mentioned here, in particular for prenatal diagnosis of specific genetic diseases. For more information on these and other tests, please contact us or check our website at [www.cgcgenetics.com](http://www.cgcgenetics.com).

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