NCGM
—by Neuberg—

Chromosomal Microarray Analysis with **Cyto-ONE**

ONE Array for All

Chromosomal microarray (CMA) is a powerful tool for detecting copy number variants (CNVs) associated with diseases and phenotypes.

The ACMG and ACOG recommend microarray as the test of choice for the detection of Copy Number Variants—Deletions and Duplications

But

Are all microarrays equally sensitive in detecting CNVs?

&

How do you choose the right one for your patients?

High-resolution microarrays significantly improve diagnostic power

Introducing

Cyto-ONE

ONE Array for All

A **single high-resolution microarray** that will transform the realm of definitive diagnosis

About Cyto-ONE

Cyto-ONE is a high-resolution microarray-based diagnostic test that detects copy number variants of up to 200 kb across all 23 chromosomes.

Step 1	Step 2	Step 3	Step 4
Sample collection (Blood, products of conception, amniocentesis, chorionic villus sampling, Dried Blood Spot, Cord Blood and Extracted DNA)	**Wet-lab assays**	**Bioinformatic analysis**	**Reporting** (Review and interpretation)

What to Expect from Cyto-One

What It covers

- Full chromosomal aneuploidies
- Microdeletions and duplications of up to 200kb*
- Regions of homozygosity (ROH)
- Uniparental disomy

* Dependent on probe spacing and gene coverage

Turnaround time: 13 to 15 days

What It Does Not Cover

- Balanced chromosomal rearrangements
- Low-level mosaicism
- Single gene defects

How Does Cyto-One Support Your Decision-Making

- Initiating quick intervention or response in at-risk mothers including pregnancy termination
- Providing the best assistance before childbirth or the right therapeutic approach after the birth of the baby

	Cyto-ONE	Other Microarrays
SNP marker	Approx. **1,000,000** markers	**7,50,000** markers
Probe spacing (Kb)-Mean/Median	**5 kb**	**~50 kb**
Backbone	**~15—20 Kb**	**200 kb**
Copy Neutral Loss of Heterozygosity (cnLOH)	**<3Mb**	**5Mb**
Failure Rate	**<2%**	**upto 5%**

When to Recommend Cyto-ONE?

It can help get early answers during both prenatal and postnatal periods.

- Recurrent pregnancy loss
- IUD (intrauterine death) and IUGR (intrauterine growth restriction)
- Presence of fetal soft markers
- Confirmatory test in positive-screen results or high-risk cases
- Add-on test for fetal chromosomal evaluation
- Presence of congenital anomalies in babies
- Evaluation of autism, intellectual disability and dysmorphism in babies/children

Why Clinicians and Parents Should Consider Cyto-ONE

- Higher detection rates and lower failure rates
- Detection of ROH (Regions Of Homozygosity)
- Prediction of the presence of an underlying recessive disorder
- Fast turnaround time for timely management

Experience. Competency. Accuracy

Choose CytoOne for timely and precise answers

MCC required for all prenatal tests

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To know more or book the test,

Neuberg Center for Genomic Medicine (NCGM) | NCGM, Inc.(a Neuberg Diagnostics Company)
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References:

1. American College of Obstetricians and Gynecologists. Microarrays and next-generation sequencing technology: the use of advanced genetic diagnostic tools in obstetrics and gynecology. ACOG Committee opinion no. 682. American College of Obstetricians and Gynecologists. Obstet Gynecol. 2016;128:e262-8.