Chromosome Analysis: Products of Conception (POC)

Test Code: CO
Turnaround time: 10 days - 21 days
CPT Codes: 88233 x1, 88262 x1, 88291 x1

Condition Description

This test will detect abnormalities in chromosome number and large deletions/duplications of chromosome material, as well as balanced chromosome rearrangements.

Please note: We recommend microarray analysis as the cytogenetic test for POC samples. For more information about the microarray, please click here.

The advantages of POC microarrays are:

- it utilizes uncultured DNA, which overcomes many of the limitations of G-banded analysis, including cell culture failure, suboptimal chromosome preparations and maternal overgrowth of cells
- it has the potential to detect chromosomal abnormalities that cannot be visualized by G-banded analysis
- it provides at least a ten-fold increase in the detection of chromosomal imbalances compared to G-banded analysis
- it has a shorter turnaround time since cells do not have to be cultured

Indications

Chromosome analysis performed on POC is warranted for the evaluation of any spontaneous pregnancy loss and can provide a diagnosis as well as the recurrence risks of chromosome problems in a future pregnancy.

Methodology

Chromosome analysis on non-cancerous solid tissue.

Detection

Chromosome analysis by ISCN and ACMG guidelines; minimum band resolution of 450.

Specimen Requirements

Additional Specimen Collection/Handling Instructions Required for this Test
Tissue fixed in formalin cannot be used.

Submit only 1 of the following specimen types

Type: Chorionic Villi
Specimen Requirements:
Collect 15-30 mg of chorionic villi/placental tissue using sterile technique. Place in sterile tube(s) with EGL transport media or other sterile culture media.
Specimen Collection and Shipping: Refrigerate until time of shipment. Ship sample overnight at room temperature for receipt at EGL within 24 hours of collection.

Type: Tissue Biopsy
Specimen Requirements:
Obtain 1-2 cm piece of fetal tissue and place in sterile container with EGL transport media or other sterile culture media. Use sterile dissection (no prep) for internal tissues.
Specimen Collection and Shipping: Refrigerate until time of shipment. Ship sample overnight at room temperature for receipt at EGL within 24 hours of collection.

Related Tests

- Chromosomal Microarray, EmArray Cyto POC (CMPOC) – may detect microdeletions/duplications that are not visible by chromosome analysis and is recommended as a first tier diagnostic test.
- Infertility Panel: Female (MG)
- Infertility Panel: Male (MH)