

DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE  
PRECISION DIAGNOSTICS – INHERITED DISEASE

## Instructions for Collecting, Handling & Shipping of Specimens

**Specimen Identification:** Please put full name and date of birth on each specimen as it is drawn. Unlabeled specimens will not be processed.

**Test Orders:** A completed requisition must accompany all specimens. Include a separate requisition for each person being tested or specimen type, including the signed consent form for patient, parent or guardian. Each specimen needs to be accompanied by the Consent form, available on our website at [www.childrenscolorado.org/laborder](http://www.childrenscolorado.org/laborder) underneath the Precision Diagnostics section.

**Paperwork:** Please include copies of medical records confirming diagnosis in affected patients and any other relevant clinical notes, such as reports of genetic testing already performed, should accompany specimens. Please avoid sending personal health information (PHI) by email except in securely encrypted messages. Fax and mail are better for HIPAA privacy compliance.

**Shipment of Specimens:** Samples should be received within 72 hours of collection if possible - maximum 5 days. Our recommendation is to use FedEx or UPS for shipping and obtain a tracking number to ensure safe delivery. Samples that are received on a Friday afternoon, Saturday, Sunday or before a major holiday will not be processed until the next business day. If samples need to be stored in your laboratory prior to shipping, they should be stored at room temperature or refrigerate until you send; **do not freeze**. Local couriers may be used to deliver specimens within the Denver metropolitan area.

**Specimen shipping address:**

Children's Hospital Colorado  
Attn: Clinical Laboratory - Precision Diagnostics Laboratory  
13123 E 16th Ave, Rm. B0200  
Aurora, CO 80045

**Peripheral Whole Blood:** 5 ml (adult), 2-5 ml (pediatric), minimum of 1 ml (newborns). We prefer EDTA (lavender/purple top) vacutainer tubes, but we can also accept blue, yellow or green top tubes if necessary. We cannot accept red top tubes (clotted blood) for DNA testing. Transfusions of whole blood prior to peripheral blood collection may result in an inconclusive interpretation.

**Extracted DNA:** We accept extracted DNA for any test; send approximately 10-20 µg. From overseas, we recommend sending extracted DNA. Keep some DNA as a backup if possible, in case a sample is damaged in transit. From Canada, send either whole blood or DNA.

**Cell Cultures - Fibroblasts and Other:** Send cultured cells at room temperature: Two T25 flasks, filled with media for shipment. Please continue to maintain the cell culture as a backup until results are reported.

**Maternal Cell Contamination Study (MCC):** We test for maternal cell contamination with all prenatal testing. If a fetal sample is contaminated with maternal cells, interpretation will be inconclusive. Please provide a maternal blood sample, 2-3 ml in an EDTA (purple top) tube, either before or with the fetal sample. **Send a separate test order form for the maternal sample.** If a maternal DNA sample is already stored in our laboratory, please contact us to ask if we need an additional specimen.

**Amniotic Fluid - Direct:** Please establish a cell culture before sending direct fluid; maintain the cell culture as a backup until results are reported. If the direct sample size is too small, results will be reported on the cell culture. For second trimester samples, send two (2) samples of direct amniotic fluid, 15-20 ml each, in sterile, securely capped plastic tubes. For third trimester samples, send a total of 45-50 ml of direct fluid. Transport promptly at room temperature.

**Amniotic Fluid - Cell Culture:** Send cultured amniocytes at room temperature: Two T25 flasks, filled with media for shipment. Please continue to maintain the cell culture as a backup until results are reported.

**CVS - Direct:** Please establish a cell culture before sending direct tissue; maintain the cell culture as a backup until results are reported. If the direct sample size is too small, the results will be reported on the cell culture. Direct CVS specimen: At least 10-15 mg of tissue in a sterile medium in a sterile, securely capped plastic container or centrifuge tube. Clean the tissue and transport promptly at room temp.

**CVS - Cell Culture:** Send cultured cells at room temperature: Two T25 flasks, filled with media for shipment. Please continue to maintain the cell culture as a backup until results are reported.

**Saliva Specimens:** Contact us to confirm if a saliva sample is suitable for the test you wish to order.



13123 E 16th Ave, Aurora, CO 80045  
720-777-6711 | [childrenscolorado.org](http://childrenscolorado.org)

**NBS, Newborn Screening Blood Spots:** We do not accept this sample source.

**Buccal (Cheek) Swabs:** We do not normally accept this sample.

**Other Sample Types:** Please obtain prior approval of a Laboratory Director for specimen volumes less than the minimum, specimens collected out of the preferred time frames, or analysis of other specimen types.

**Missing Paperwork Policy:** For test order forms with missing or incomplete answers (e.g., absent or unsigned consent forms or inadequate billing information), our policy is to extract DNA and **wait for paperwork before running the test.**