

Specimen Collection and Handling Guidelines for Whole Blood

If protocol-specific collection and handling instructions for whole blood are not provided in the protocol or through a linked resource (usually in Section 15 in SWOG-led protocols), then follow the instructions outlined below.

Collecting Whole Blood

1. Use the protocol-specified [Vacutainer tube type](#).
 - a. If the recommended size of vacutainer tube specified in the clinical trial protocol is not available, then other sized tubes may be used to collect the total volume of blood (e.g., if 10 mL of blood is requested, then two (2) 5-mL tubes may be used).
 - b. Pre-label vacutainer tube(s) according to [specimen labeling requirements](#).
2. Use aseptic techniques and draw blood from the participant into the vacutainer tube(s). The amount of blood required will vary per protocol; refer to section 15 for required/requested collection volumes.
3. Immediately after the blood is drawn, gently invert the tube 5-10 times to thoroughly mix the blood with the anticoagulant.

Collecting Whole Blood in Streck cfDNA tubes

1. Label Streck cfDNA tube(s) according to [specimen labeling requirements](#).
2. Collect 10 mL of blood into each pre-labeled tube and gently invert to mix. Note: blood must be thoroughly mixed to ensure preservation of specimen.
 - a. Note: if patients may have an indwelling catheter: heparin should be avoided in pre-collection flush procedures. If therapeutic heparin dosing contamination is a possibility, then venipuncture is recommended as a first choice collection method. If a Streck cfDNA tube immediately follows a heparin tube in the draw order, then collecting an EDTA tube as a waste tube prior to collection in the Streck Cell-Free DNA BCT is recommended.
3. After collection, **blood in Streck cfDNA tubes should never be refrigerated**, as this will compromise the specimen. Blood collected in Streck cfDNA tubes is stable at room temperature.

Storing Whole Blood

1. After collection, keep blood at room temperature until shipment. Whenever possible, blood should be shipped on the same day of collection.
2. If blood cannot be shipped on the same day of collection, store in a 4°C refrigerator (40°F) until shipment the next business day. **Do not freeze whole blood**. If whole blood is stored longer than 24 hours, then note the storage time on the specimen shipping form.
 - Note: Some tubes (e.g., Streck cfDNA) must be kept at room temperature.