

Specimen Collection and Preparation

The following are general instructions for specimen collection and transport. Some tests have specific instructions which vary from these general ones. **Always follow the specific instructions for each test.**

Blood Collection:

Most laboratory tests are performed on anti-coagulated whole blood, plasma, or serum. In general, specimens should be refrigerated until placed in the courier box for transport to the laboratory. Please see our individual test directory section for specific requirements.

- **Plasma:** Draw a sufficient amount of blood with the indicated anticoagulant to yield the necessary plasma volume. Gently mix blood draw tube by inverting 6 to 10 times immediately after collection. If required, separate plasma from cells by centrifugation within 20 to 30 minutes.
- **Serum:** Draw a sufficient amount of blood to yield the necessary serum volume. Allow blood to clot at ambient temperature, then separate serum from clot by centrifugation within 20 to 30 minutes. Caution: Avoid hemolysis.
- **Whole Blood:** Draw a sufficient amount of blood with the indicated anticoagulant. Gently mix blood draw tube by inverting 6 to 10 times immediately after draw.

Specimen Tube Draw Order:

The following is a list of tubes referred to in the St. Francis Lab Services:

- Serum gel tube
- Red-top tube (plain-no preservative)
- Blue-top tube (sodium citrate)
- Royal blue-top tube
- Green-top tube (heparin)
- Lavender-top tube (EDTA)
- Grey-top tube (potassium oxalate/sodium fluoride)

Specimen Draw Tubes:

If more than 1 tube type is required on a patient, please draw tubes in the following order to assure specimen integrity:

- **Blue-top tube (Sodium Citrate):** This tube contains sodium citrate as an anticoagulant. It is used for drawing blood for coagulation studies.
Note: It is imperative that the tube be completely filled. The ratio of blood to anticoagulant is critical for valid prothrombin time results. Immediately after draw, gently invert the tube 6 to 10 times in order to activate anticoagulant.
- **Red-top tube:** This tube is a plain vacutainer containing no anticoagulant. It is used for drawing serum for selected chemistry tests.

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- Serum Gel tube: This tube contains a clot activator and serum gel separator. It is used for various laboratory tests.
Note: Gently invert tube to activate clotting. Let the tube stand for 20 to 30 minutes before centrifuging for 10 minutes.
- Green-top tube (Sodium Heparin): This tube contains sodium heparin. It is used for drawing heparinized plasma or whole blood for special tests.
Note: After the tube has been filled with blood, immediately invert the tube several times in order to prevent coagulation.
- Lavender-top tube (EDTA): This tube contains EDTA as an anticoagulant. It is used for most hematological procedures.
Note: It is imperative that the tube is allowed to fill to proper capacity to maintain the proper ratio of blood to anticoagulant. Immediately after the tube has been filled with blood, gently invert several times in order to prevent coagulation.
- Grey-top tube (Potassium Oxalate/Sodium Fluoride): This tube contains potassium oxalate as an anticoagulant and sodium fluoride as a preservative. It is used to preserve glucose in whole blood and for some special chemistry tests.
Note: After the tube has been filled with blood, immediately invert the tube several times in order to prevent coagulation.

Miscellaneous tubes:

- Royal blue-top tube: There are 2 types of royal blue-top tubes—one with anticoagulant EDTA and the other plain. These are used for drawing whole blood or serum for trace element analysis. Refer to individual metals in individual test listings to determine the tube type necessary. Please call St. Francis Lab Services at 318-966-5221 for assistance, if required.
- Special Collection tubes: Some tests require specific tubes for proper analysis. Please contact St. Francis Lab Services at 318-966-5221 or 318-966-5222 prior to patient collection to obtain correct tubes for metal analysis or other tests as identified in individual test listings.
- Yellow-top tube (ACD): This tube contains ACD. It is used for drawing whole blood for special tests.