

SPECIMEN COLLECTION & PREPARATION

Laboratory test results are dependent on the quality of the specimen submitted. It is important that all specimens and request slips be properly labeled with the name of the patient, collection date, and the origin (source) of the specimen, when applicable.

The most common interfering substances are listed on the specimen requirement column of the test listing. A more comprehensive listing is available in Young DS: Effects of Drugs on Clinical Laboratory Tests. Fourth edition. Washington DC, AACC Press, 1995.

If there is any doubt or question regarding the type of specimen that should be collected, it is imperative that AVH Laboratory (544-1570) be called to clarify the order and specimen requirements.

Blood Collection

Most laboratory tests are performed on anticoagulated 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 indicated anticoagulant to yield necessary plasma volume. Gently mix blood collection tube by inverting 6 to 10 times immediately after draw. If required, separate the plasma from the cells by centrifugation within 20 to 30 minutes.

Serum: Draw a sufficient amount of blood to yield necessary serum volume. Allow blood to clot at ambient temperature; and then, separate serum from clot by centrifugation within 20 to 30 minutes. Caution: avoid hemolysis.

Whole Blood: Draw a sufficient amount of blood with indicated anticoagulant. Gently mix blood collection tube by inverting 6 to 10 times immediately after draw.

Specimen Collection Tubes

The following is a list of tubes referred to in the AVH Laboratory specimen requirements:

Green-Top Tube (Sodium Heparin) Gel SST: This tube contains sodium heparin — used for collection of heparinized plasma or whole blood for special tests.

Note: After tube has been filled with blood, immediately invert tube several times in order to prevent coagulation.

Lavender-Top Tube (EDTA): This tube contains EDTA as an anticoagulant — used for most hematological procedures.

Note: After tube has been filled with blood, immediately invert tube several times in order to prevent coagulation.

Light Blue-Top Tube (Sodium Citrate): This tube contains sodium citrate as an anticoagulant — 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, invert tube 6 to 10 times in order to activate the anticoagulant.

Red-Top Tube: This tube is a plain VACUTAINER® containing no anticoagulant— used for collection of serum for selected chemistry tests and for some tests sent to Mayo Medical Labs.

Gold-Top Gel Tube: This tube contains a clot activator and serum gel separator — used for various laboratory tests.

Note: Invert tube to activate clotting; let stand for 20 to 30 minutes before centrifuging for 10 minutes. If frozen serum is required, pour off serum into plastic vial and freeze. Do not freeze VACUTAINER(S)®.

Special Collection Tubes: Some tests require specific tubes for proper analysis. Please contact AVH Lab prior to patient draw to obtain correct tubes for metal analysis or other tests as identified in individual test listings.

Yellow-Top Tube (ACD): This tube contains ACD — used for drawing whole blood for special tests sent to Mayo Medical Labs and for whole blood for Blood Bank testing.