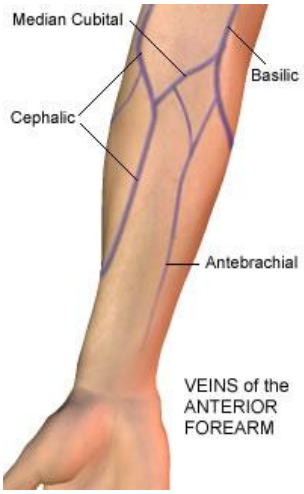
Venipuncture Collection Instructions

Venipuncture using a needle/hub assembly

1. Identify the patient. Ask the patient to state their name and their birth date. Match the name and birth date with the requisition.
2. Explain the procedure.
3. Check patient preparation. Certain specimens require fasting or other patient preparations. If special preparations were necessary, verify that the patient followed the instructions.
4. Select the appropriate tubes and needles for specimens to be collected.
5. Assemble necessary equipment described in materials section.
6. Wash hands and put on gloves.
7. Establish collection order for Vacutainer Plus Plastic Tubes.
    1. Sterile tubes for Cultures
    2. Light Blue (Na Citrate)
    3. Red (clot activator) and Gold (clot activator with SST gel)
    4. Green (Lithium Heparin)
    5. Tan (Sodium Heparin)
    6. Lavender and Pink (EDTA)
    7. Gray (Sodium Fluoride)
8. Patient should be comfortably positioned with the sleeve rolled up and the arm extended and supported on the bed or padded arm of the phlebotomy chair. Never attempt a venipuncture on a standing patient. Patients sometimes feel faint after venipuncture and may suddenly collapse.
9. Apply the tourniquet 3 - 4” above the puncture site. It should be restrictive enough to be slightly uncomfortable for the patient. Tourniquet should be applied for no more than 1 minute.
10. Select a good site for venipuncture. Avoid scarred or bruised areas. Recent IV sites and the arm on the side on which a mastectomy was performed should also be avoided. The median cephalic vein should be used if possible, avoiding the basilic vein. The vein will spring back when lightly pressed on. Inspect and feel the vein you plan to use.



11. If an adequate vein cannot be located, the following techniques may help:
    a) Massaging the arm from the wrist to the elbow to force blood into the vein may also cause the vein to further dilate.
    b) Apply a warm wet towel to the arm for 5 minutes
    c) Have the patient dangle the arm for 5 minutes to distend the veins.
12. Clean the puncture site with alcohol wipes by making a smooth circular pass of the puncture site moving in an outward spiral from the puncture site. Allow the skin to dry and do not touch the puncture site after cleaning. (*See Blood Culture Collection procedure for special cleansing requirements if drawing blood cultures*.)
13. Do not remove the needle cap until the needle is screwed into place on the disposable hub or syringe.
14. Perform the venipuncture
    a) Holding the needle/tube assembly in your dominant hand, flick the needle shield towards you, remove the needle cap. Position the needle with the bevel up.

    NOTE: The needle must not touch anything until it punctures the skin. If it should touch anything, properly discard it and use a new needle.

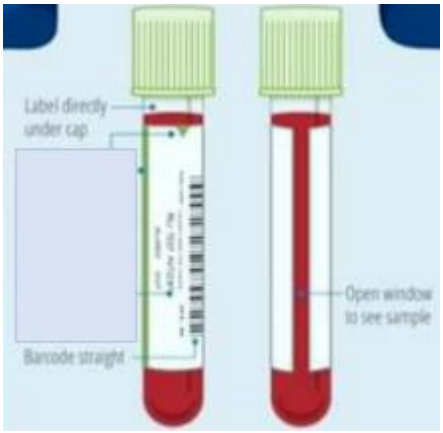
    b) Grasp patient's arm just below the puncture site with your non-dominant hand and pull skin tight with your thumb.
    c) Align the needle/tube assembly with a 15-30 degree angle to the skin. Use a quick, but small, thrust to penetrate the skin and enter the vein in one motion if possible.
    d) Rest your hand on the patient's arm to hold the hub flange steady. Push the tube with the other hand onto the needle and puncture the stopper. Blood should flow when the needle punctures the stopper of tube. If the blood does not flow, then the needle is either through the vein or not in the vein. If the needle has penetrated too far into the vein, pull it back a bit. If the needle has not penetrated far enough, advance it farther into the vein. It is not recommended to shift the needle from side to side as this is considered probing and can result in nerve damage and unnecessary pain to the patient.

e) Remove the tube when blood flow stops. The shut-off valve will close to prevent leakage.
f) If multiple tubes are needed they should be inserted and filled in the proper order.
g) Each tube is to be gently inverted 5-10 times to properly mix the blood and the additive.

NOTE: All tubes must be mixed, even red top tubes since plastic tubes have a clot activator.

h) Release the tourniquet just before the needle is removed from the vein to avoid a hematoma.
i) Remove the needle quickly. Immediately apply a 2" x 2" gauze over the puncture site. Point the needle and hub away from the patient and flick the shield over the needle with your thumb. Covering the needle with the shield should occur as quickly as possible to avoid exposure to the needle.
j) Ask the patient to keep the arm extended in straight position and apply pressure on the gauze for at least 2 minutes. Patients on Coumadin therapy will require pressure to the site for 5 – 10 minutes.
k) Dispose of the needle/hub, in a bio-hazardous sharps container. Never remove a needle unless it is necessary for the procedure (i.e. when performing blood cultures or when using a small gauge needle and the risk of hemolysis is a concern). If a needle must be removed, remove the needle using the top of the sharps container to unscrew the needle, causing it to fall into the container.

15. **Label the tubes at the time of draw** with a minimum of the patient's first and last name, patient's birth date, the date, time and initials or identifying number of the person drawing. If a barcode label or stamper plate label is used, the date, time and phlebotomists initials or identifying number must be added. If the patient is in a phlebotomy chair, label the tubes while standing next to the patient. Never leave unlabeled tubes on a counter top or walk out of a room with unlabeled tubes. Never put unlabeled tubes in your pocket. Never pre-label collection tubes before the blood draw. (*See Specimen Labeling link for more information on proper labeling.)*



16. Make sure the patient is stable, and confirm that the bleeding has stopped. Apply a fresh bandage using both gauze and tape or an adhesive bandage.
17. Place the tubes in a bio-hazard bag. Close the bag, making sure the seal is secure. Place the paper requisition in the outside pocket of the bag. MCL accepts one patient draw per bio-hazard bag. If sending using the pneumatic tube system, place in bubble bag before tubing.
18. Transport (tube) the specimen to the laboratory. *(See Packing Specimens for Transport link for more information.)*

Blood Collection Tube Guide and Order of Draw

Tube Top Color	Contents	Most Common Uses
Blue	3.2% Sodium Citrate	**PT, PTT**
Dark Blue	No additive. Special glass and stopper material	**Trace Metals**
Gold (Gel, SST)	Contains separating gel and clot activator	**Some chemistry, endocrinology tests**
Red	Clot activator	**Therapeutic drug monitoring, serology tests.**
Green	Lithium heparin w/ gel	**Most chemistry tests**
Tan	72 USP Sodium Heparin	**Flow Cytometry, Lead testing**
Dark Blue Heparin	Trace Metal free Lithium Heparin	**Chromosome analysis**
Yellow	ACD	**Histocompatibility**
Lavender	7.2 mg (K_3) EDTA	**CBC/Diff, Retic, Sed Rate, HBA1C**
Pink	10.8 mg (K2) EDTA	**ABO & Rh typing, antibody screens & compatibility testing**
Grey	Potassium Oxalate, Sodium Fluoride	**Lactic Acid**

The Test Directory lists the preferred sample to be collected. Please call MercyOne Des Moines Laboratory Customer Service for alternative sample questions.

NOTE: NEVER mix two partially drawn tubes together.

NEVER pour from one tube color into another.