EXPERIMENT NO.: 2 **DATE:**

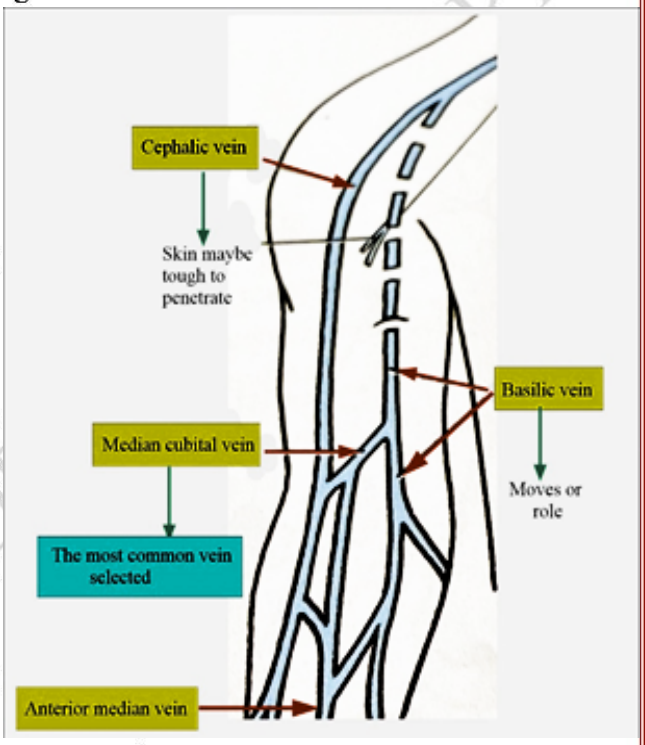
AIM: GENERAL TECHNIQUES FOR THE COLLECTION OF BLOOD.

INTRODUCTION:

Blood is collected for the various hematological investigations to obtain accurate and precise results in the laboratory which will to identify a correct diagnosis of the patient's disease.

Three popular methods of blood collection or sampling are:

1. Venipuncture Sampling
2. Arterial Sampling
3. Capillary Sampling



1. Venipuncture Sampling

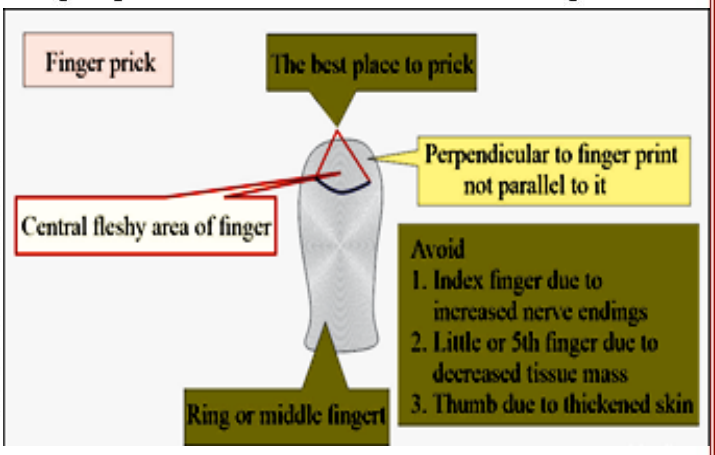
- This is the easiest way to collect the blood sample.
- It is free of complications.
- Blood is taken from the superficial veins.
- The commonest site is the antecubital fossa because of the presence of basilic vein, cephalic vein, median cubital veins are the commonest veins.
- Veins of the wrist or hand may be used and another site is the femoral vein.

2. Arterial blood:

- Arterial blood is used to measure arterial blood gases, like oxygen, CO_2, and pH.
- Arterial puncture is more difficult than the venous sample.
- The Brachial and radial arteries are often used; the femoral artery is usually avoided because of bleeding.

3. Capillary blood:

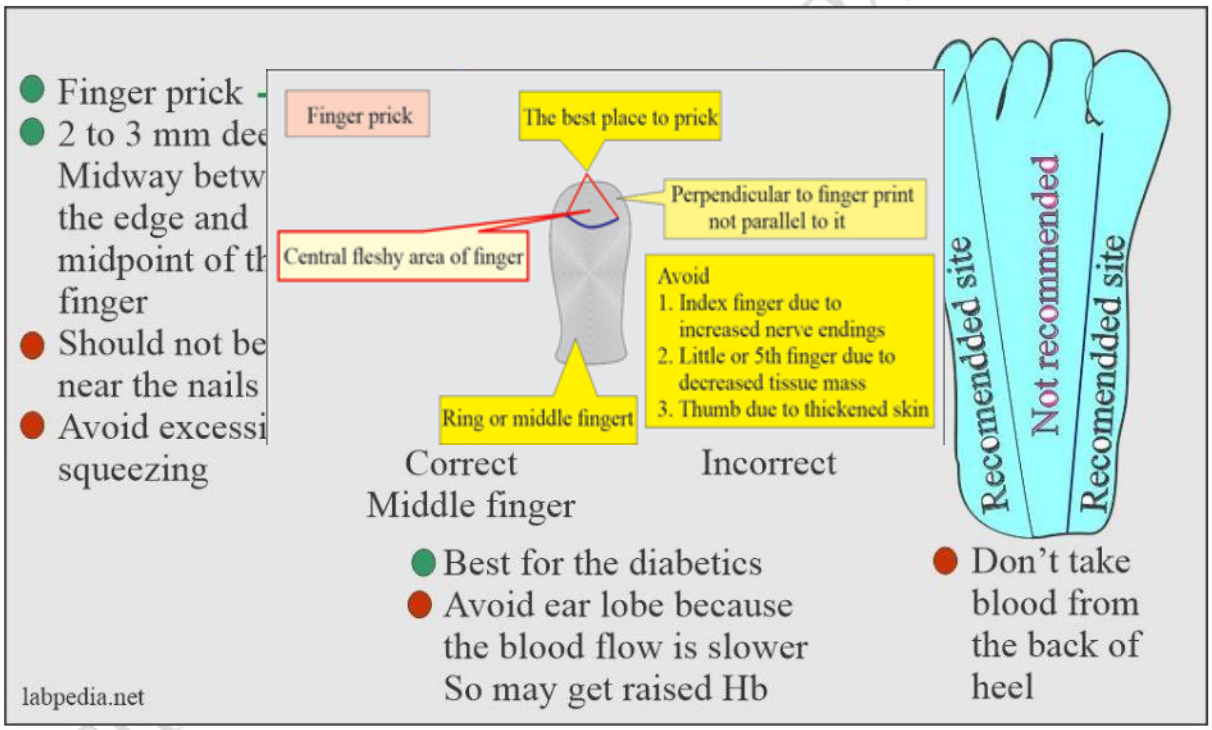
- It is mostly used in the pediatric patient's group where there is no need for a large amount of blood.
- The common sites are the fingertips, heel, and ear lobe. The heel is most commonly used in infants.
- The middle or ring finger is preferred as having the greatest depth of tissue beneath the skin and hence offering the least chances of injury.
- The thumb or index finger may be more likely to be calloused or scarred, as well as being much more sensitive, making the procedure more painful.



- Repeated punctures should not be made on the same site to avoid pain and dilution of the blood with extracellular fluid.

PROCEDURE OF FINGER PRICK:

- First warm the finger or hand to increase the blood flow for that shake the two hand or you can put the hand or finger in warm water also.
- After then gently apply the 70 % of alcohol on the correct finger.
- Then rub middle or ring finger of non-dominant hand from top to bottom by your thumb of dominant hand.
- Hold the finger and prick the finger by newly fresh and sterile lancet or by using pen device.
- Collect sufficient quantities of blood if possible then discard the first drop of blood due to contamination of protein and skin material.
- After collection of blood again sterilize the finger using 70 % of methylated alcohol or proof spirit using cotton wool.



Note:

- Discard the used needle and syringe or blood-sampling device into a puncture resistant sharps container.
- Do not use someone else used lancet or pricking niddle.

SIGNATURE OF TEACHER