

## **Coagulation time**

It is the time required for blood to coagulate. Normal coagulating time is about 3-8 minutes . Blood clotting is change occurs in the plasma. The RBCs and WBCs play no role in the formation of blood clot .

## **Bleeding Time (BT)**

- **Principle:**
- The bleeding time test is a useful tool to test for platelet plug formation and capillary integrity. Occasionally, the bleeding time test will be ordered on a patient scheduled for surgery.
- The bleeding time is dependent upon:-
  1. The efficiency of tissue fluid in accelerating the coagulation process,
  2. On capillary function and
  3. The number of blood platelets present and their ability to form a platelet plug.

Prolonged bleeding times are generally found when

1. The platelet count is below 50,000/ $\mu$ L, and
2. When there is platelet dysfunction.
3. When a patient is suspected of having a bleeding disorder.

These tests include the bleeding time:

1. prothrombin time.
2. activated partial thromboplastin time.
3. platelet count& fibrinogen.

There are 2 pathways for blood clotting .

1. Intrinsic pathway .
2. Extrinsic pathway .

The first stage in the clotting of blood occurs when the platelets break down or tissues damage .

### **Procedure**

1. Sterilize the tip of finger with cotton moistened with alcohol.
2. Prick the finger with sterile lancet .
3. Touch the end of un heparinized capillary tube ( blue ring )and allow blood to rise at  $\frac{3}{4}$  full and note the time .
4. Wait 1 minute and break off a small portion of the tube .
5. Gently pull the tube apart and look for a stand of clotted blood .
6. Continue to break off piece of tube every 30 seconds until a clot is observed ,the time between the shedding of blood and clot formation is the coagulating time .