Clotting Time – [Whole Blood] Analysis

Objective

The objective of this test is to determine the clotting time of whole blood. Clotting time assesses the integrity of the intrinsic and common coagulation pathways and is used to detect coagulation factor deficiencies or monitor anticoagulant therapy.

Materials and Methods

Materials:
- Whole blood sample (capillary or venous)
- Capillary tubes or glass test tubes
- Stopwatch
- Water bath (optional)

Methods:
1. Sample Collection: Obtain whole blood by finger prick or venipuncture.
2. Capillary Method: Fill capillary tube with blood and break at 30-second intervals until fibrin thread appears.
3. Test Tube Method: Collect blood in glass tube, tilt every 30 seconds to check for clot formation.
4. Interpretation: Compare clotting time with normal reference range (usually 5–15 minutes).
5. Safety: Follow aseptic procedures and dispose of sharps properly.

Results

- Normal clotting time: 5–15 minutes (method-dependent)
- Prolonged clotting time: Suggests coagulation factor deficiencies (hemophilia, liver disease) or anticoagulant therapy
- Shortened clotting time: Rare, usually clinically insignificant

Conclusion

Clotting time is a basic screening test for evaluating the intrinsic coagulation pathway. Abnormal results should be confirmed with specific coagulation tests such as APTT, PT, and factor assays for definitive diagnosis and clinical management.