

AL Zahraa University for women

College of Pharmacy

Physiology

Lab2

2nd stage



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Clotting time

Clotting time is defined as the time interval in between onset of bleeding and appearance of semisolid mass i.e. clot.

Normal value of clotting time is 3-4 minutes.

Clotting time is determined using two methods : Capillary tube method and Test tube method.

The aim of the experiment is to determine the clotting time of the subject.

- **Requirements:**

Spirit, cotton, needle, capillary tube, stopwatch.

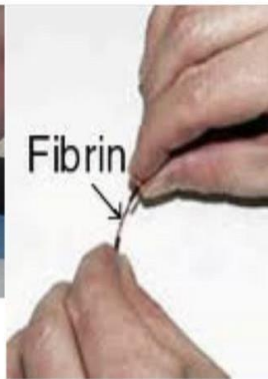
- **Procedure:**

Capillary tube method:

1. The finger tip of the subject is sterilized and a bold prick is made in the finger tip with a sterilized needle to have free flow of blood.

2. The blood coming out of the puncture is sucked into a capillary glass tube of 15cm long.
3. Then the tube is kept undisturbed horizontally for about 1-2 minutes.
4. A small bit of the glass tube is broken off every 30 seconds until a fine thread of clotted blood appears while the capillary tube is broken.
5. When the thread appears the stopwatch is stopped. This gave us the clotting time.

The period in between appearance of blood in finger and formation of clot was taken as clotting time.



Bleeding Time

The bleeding time is the time required for a small cut to stop bleeding.

When a blood vessel is injured, blood comes out for some time and then it stops because of the formation of platelet plug. The duration of bleeding is the bleeding time.

Normal value for bleeding time is 1-3 minutes.

- Significance:
 - The bleeding time is mainly used in the diagnosis and treatment of the hemorrhagic diseases.
 - The bleeding time is also useful just before operations such as tonsillectomy. In such cases it may point out an abnormal bleeding process. This will aware the physician to take proper precaution.

The bleeding time may be performed by following methods: Duke Method, Ivy's Method, Macfarlane Method.

The aim of the experiment is to determine the bleeding time of the subject.

- Requirements

Spirit, cotton, needle, piece of filter or blotting paper, stopwatch.

- Procedure:

Duke method for bleeding time:

- 1) The fingertip of the subject is sterilized with spirit and a bold prick is made with a sterile needle to have free flow of blood.
- 2) The stopwatch is started, and time is recorded.
- 3) A piece of blotting paper is folded into half and exactly at every 15

seconds interval.

- 4) the blood coming out from the puncture is wiped.
- 5) The above step is repeated until blood ceases to flow.
- 6) The time at which blood ceased to flow is recorded.
- 7) The bleeding time is determined from the recorded time data.

