

# Bleeding Time



# Bleeding Time

- Bleeding time is a test of **platelet function**.
- The time it takes for bleeding to stop (time for a platelet plug to form).
- The **template bleeding time** is used when the test is performed by standard template method.



# Materials

- Alcohol swabs.
- Filter paper.
- A stop-watch.
- A **stylette** to prick an ear lobe.



# Procedure

- Clean the lobe of the ear with an alcohol swab.
- When it is dry, make a single puncture with a stylette (about 3mm deep).
- Note the **time at which the puncture** is made.
- The skin of the ear should not be touched once the puncture has been made until the experiment is over.



## Procedure cont....

- Apply a piece of filter paper to the blood-drop every 30 seconds until the bleeding stops.
- The bleeding time estimated by this method of a normal subject is:  
**2-5 minutes.**



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# The Standardized Template Method

- A **sphygmomanometer cuff** is applied to the subject's arm and inflated to 40mmHg.
- The volar surface is cleaned with 70% alcohol.
- A sterile metal template with a linear slit (11mm long) is pressed firmly against the skin.
- A scalpel blade, with a guard, is carefully introduced so that it protrudes 1mm through the template slit. An incision, 1mm deep and 9mm long can then be made.
- Blood is gently, but completely removed with filter paper at 15 second intervals until the bleeding stops.
- Normal bleeding times determined with this method are in the range **2.5-9.5 minutes**.



# The Standardized Template Method





# Note

- **If the bleeding time exceeds 15 minutes:**
  - stop the procedure.
  - apply pressure to stop the bleeding.
  - report as greater than 15 min.



# Clinical Application

Bleeding time is prolonged in the following conditions:

- **Platelet dysfunction.**
- Blood vessel wall disorders.
- Haemophilia.
- Von Willebrand Disease.
- Thrombocytopenia.
- Vitamin K deficiency.
- Medications: Aspirin.

