

## Chernecky & Berger: Laboratory Tests and Diagnostic Procedures, 5th ed.

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Bleeding Time, Duke—Blood

**Norm.**

1–5 minutes.

**Increased.**

Anemia (aplastic, pernicious), collagen diseases, congenital heart disease, disseminated intravascular coagulopathy, drug sensitivity, ethyl alcohol ingestion along with aspirin ingestion, factor deficiency (I, II, V, VII, VIII, IX, XI), fibrinolytic activity, Glanzmann's disease, hemorrhagic disease of the newborn, Hodgkin's disease, hypothyroidism, idiopathic thrombocytopenic purpura, infections (measles, mumps, streptococcal), leukemia (acute), liver disease (severe), mononucleosis (infectious), multiple myeloma, purpura hemorrhagica, scurvy, thrombasthenia, thrombocytopathy, thrombocytopenia purpura (secondary caused by allergy), von Willebrand's disease, and uremia. Drugs include anticoagulants (oral), indomethacin, phenylbutazone, and platelet aggregation inhibitor drugs (aspirin, clopidogrel, eptifibatide). Herbs or natural remedies that may inhibit platelet activity include feverfew (*Tanacetum parthenium*), *Ginkgo biloba*, garlic, ginger, and ginseng.

**Decreased.**

Not clinically significant.

**Description.**

The duration of active bleeding from a standardized superficial puncture wound of the skin is measured. It is most helpful as an indicator of platelet abnormality, either in their number or from their function.

**Professional Considerations**

Consent form NOT required.

### Risks

Bleeding, hematoma, infection, ecchymoses.

### Contraindications

This test is contraindicated in clients with a platelet count  $<50,000/\text{mm}^3$ , in clients with severe bleeding disorders, or in clients who have taken medications containing aspirin within 7 days before the test.

Preparation

1. Obtain alcohol wipes, a lancet, a stopwatch, and filter paper.
2. Screen client for the use of herbal preparations or natural remedies such as feverfew (*Tanacetum parthenium*), *Ginkgo biloba*, garlic, ginger, ginseng.

Procedure

1. Cleanse the site for puncture with an alcohol wipe and allow it to dry completely.

2. Make a small lancet puncture in the fingertip or earlobe and simultaneously start the stopwatch.
3. Remove blood from the wound by gently blotting with filter paper, without exerting pressure on the wound, every 30 seconds.
4. When blood flow ceases, stop timing with the stopwatch. If bleeding continues for more than 20 minutes, discontinue the test and apply pressure to the site.

#### Postprocedure Care

1. Apply a dry, sterile dressing to the site after bleeding stops.

#### Client and Family Teaching

1. Do not take aspirin for 7 days before the test.
2. Call the physician if there are signs of infection at the test site: increasing pain, bleeding, redness, swelling, purulent drainage, or temperature  $>101$  degrees F ( $>38.3$  degrees C).
3. Results are normally available within 24 hours.

#### Factors That Affect Results

1. A uniform incision is difficult to make without considerable skill.
2. Pressing too hard on the blood with the filter paper disturbs the platelet plug and prolongs bleeding time.

#### Other Data

1. The depth of the puncture with the lancet is difficult to standardize and results in difficulty reproducing bleeding times.
2. In one study, daily administration of 75 mg of aspirin for 2 weeks in healthy pregnant women yielded results of Duke bleeding time within normal limits.

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