

How to Test Blood Glucose Levels

Introduction

Testing the level of glucose in the blood provides accurate information about how efficiently the body is utilizing glucose from the food we eat. Blood glucose testing is necessary for the monitoring and maintenance of Type I and Type II Diabetes Mellitus. Checking your blood glucose levels is a simple process that uses a glucometer, test strips and a lancet.

When Do I Test My Level?

- Before each meal
- Before bed
- When experiencing signs and symptoms of hyperglycemia
 - ✓ Increased thirst or hunger
 - ✓ Frequent urination
 - ✓ Headache
 - ✓ Blurred vision
 - ✓ fatigue

What Equipment do I Need to Test My Level?

- glucometer
- test strips
- lancet device
- alcohol wipes
- 2x2 gauze pads
- sharps container

NOTE: Please see the Glucose Test Kit Description for further explanation of equipment.

Instructions

1. Gather all equipment.

2. Thoroughly wash and dry your hands. Wash hands with soap and warm water for a minimum of 15 seconds. Be sure to clean all surfaces of the hand and under the nails.

3. Turn on the meter and open your test strip. Check the expiration date of your test strip. Expired strips may alter the test results.

4. Insert the test strip into the glucometer. The test strip has two ends. One end contains a circuit board that will transmit the sample into the glucometer for analysis. Insert this end into your glucometer. The other end is the sample chamber end. This is where you will place your blood sample. When inserting the strip into the glucometer, be careful not to touch the sample chamber end. This may alter test results.

Sample Chamber End -
Place blood sample on
this end



Circuit Board End -
Insert this end into
the glucometer

Figure 1: Glucose Test Strip (Dreamstime, 2015)

5. Cleanse the finger with alcohol swab. Be sure to let the alcohol dry completely before pricking the finger to avoid irritation.

6. Pierce the skin with the lancet device. Press the lancet firmly against the side of the finger. Avoid using the fingertip. The tip of the finger is more sensitive to irritation than the side. Press the plunger of the lancet device.



Figure 2: Lancet Device (American Diabetes Association, 2014)

NOTE: Encourage bleeding with the use of gravity. Avoid milking or squeezing the finger.

7. Wipe the first drop of blood with the sterile gauze pad. Using the initial drop may alter results.



8. Collect the blood sample. When a large drop of blood accumulates on the finger, apply the sample to the test strip. Hold the test strip to the drop of blood until the glucometer absorbs enough for a reading. The glucometer will beep when this has occurred.

Figure 3: Glucometer (Sugar Testing Machine, 2013)

9. Apply pressure to the puncture site with gauze until bleeding has stopped.

10. Glucose level results will appear on the glucometer LCD screen. See WARNING below.

11. Dispose of your lancet in the sharps container.

WARNING: If critical values are obtained call your physician immediately!

CRITICAL VALUES
Levels less than 50mg/dL
Levels greater than 450 mg/dL

References

- American Diabetes Association. (2014, July 26). *Lancet device*. [digital image]. Retrieved from <http://community.diabetes.org/t5/Recently-Diagnosed-New-Members/Can-you-recommend-a-lancing-device/td-p/538705>
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