



Department of Anesthesia Techniques
Title of the lecture:- Glucose testing

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Glucose testing

A blood glucose test measures the glucose levels in your blood. Glucose is a type of sugar. It is your body's main source of energy. A hormone called insulin helps move glucose from your bloodstream into your cells. Too much or too little glucose in the blood can be a sign of a serious medical condition. High blood glucose levels (hyperglycemia) may be a sign of diabetes, a disorder that can cause heart disease, blindness, kidney failure and other complications. Low blood glucose levels (hypoglycemia) can also lead to major health problems, including brain damage, if not treated.

Glucose is a single reagent set for determination of true glucose using GOD & POD method. Glucose reagent estimates glucose in just 10 minutes at 37 °C or 15 minutes at R.T. by end point method. The GOD-POD method is specific to glucose only.



Q1: What does mean GOD-POD method?

Q2: What is “Chromogen” and what it’s contains in this test?

Q3: What is the red compound?

Q4: What is the glucose isomer in this test?



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Method:

GLUCOSE

METHOD – GOD-POD
PRODUCT CODE – LG03

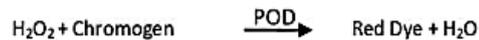
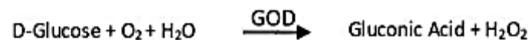


INSTRUCTIONS FOR USE

INTENDED USE: Test for estimation of glucose in serum / plasma using GOD-POD method.

SUMMARY AND PRINCIPLE

Glucose is a single reagent set for determination of true glucose using GOD & POD. Glucose reagent estimates glucose in just 10 minutes at 37 °C or 15 minutes at R.T. by end point method. The GOD-POD method is specific to glucose only.



KIT COMPONENTS

Reagent 1: Glucose Reagent
Reagent 2: Glucose Standard (100 mg/dL)

REAGENT PREPARATION, STORAGE & STABILITY

Glucose is a single ready to use reagent. The reagent kit should be stored at 2 - 8 °C and is stable till the expiry date indicated on the label.

PRECAUTIONS & HANDLING

The reagents/samples should be handled by qualified personnel only. Discard reagent/sample as per good laboratory practices and local

ASSAY PROCEDURE

	Blank	Standard	Test
Reagent	1000 µl	1000 µl	1000 µl
Standard	NA	10 µl	NA
Sample	NA	NA	10 µl
Mix the reagent and sample/standard in the above-mentioned ratio.			
Incubate the assay mixture for 10 minutes at 37 or 15 minutes at room temperature.			
Aspirate reaction mixture into flow cell and measure the absorbance.			
The final colour is stable for 2 hours if not directly exposed to light.			

CALCULATION

$$\text{Glucose (mg/dL)} = \frac{\text{Abs. of sample} \times 100}{\text{Abs. of standard}}$$

Equipment:

- 1- Spectrophotometer.
- 2- Glucose kit.
- 3- Auto pipette.
- 4- Tips.
- 5- Tubes.
- 6- Rack.
- 7- Centrifuge.



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Results:

Fasting blood glucose: 60-110 mg/dl

Postprandial blood glucose: < 145 mg/dl