

DIABETES AND HOME BLOOD GLUCOSE MONITORING

PATIENT/FAMILY INFORMATION SHEET

What is home blood glucose monitoring (HBGM)?

Home blood glucose monitoring (HBGM) is the measurement of blood glucose (sugar) by individuals with diabetes and pre-diabetes to evaluate diabetes management, using a machine called a glucose meter.

How does a glucose meter work?

A small drop of blood, usually from the fingertip, is applied to a chemically-treated test strip. Depending on the brand of meter, the strip may be in the meter before the blood sample is applied or may be inserted into the meter after the blood sample is placed on the test strip. The result of the test will appear on the meter within 5 to 45 seconds.

How often should I test my blood glucose level?

Your physician will ask you to monitor your blood glucose based upon the degree to which your diabetes is controlled. For example, individuals with type 2 diabetes or pre-diabetes who have well-controlled blood glucose may be instructed to spot-check levels a couple of times per week. Individuals who use insulin (type 1 or type 2 diabetes*), whose medications have changed or whose control has been poor may need to check one or more times per day. More testing is recommended during periods of illness.

Are there any safety concerns with monitoring blood glucose?

Yes, there are some safety recommendations. Only one person should use a lancing device to obtain a blood sample. Sharing the lancing device increases the risk of bloodborne infections, such as hepatitis B virus, hepatitis C virus and HIV.

Safely dispose of used lancets (needles). See Greenwich Hospital Patient/Family Information sheet, Diabetes and “Sharps” Disposal.

When should I test my blood glucose level?

The time of the day when blood glucose is tested provides different information:

Testing Time	Special Considerations	What are my targets?	What does the test mean?
Fasting	<ul style="list-style-type: none"> In the morning before eating or drinking 	<ul style="list-style-type: none"> 70-130 mg/dl 	<ul style="list-style-type: none"> Is the liver over-producing glucose overnight? Is the bedtime dose of insulin appropriate?
Before meals	<ul style="list-style-type: none"> Right before eating 	<ul style="list-style-type: none"> 70-130 mg/dl 	<ul style="list-style-type: none"> Has my blood glucose level come down appropriately since I last ate?
After meals	<ul style="list-style-type: none"> 1 to 2 hours after eating 	<ul style="list-style-type: none"> less than 140 - 180 mg/dl 	<ul style="list-style-type: none"> Do my food choices and portions need to be changed? Does my medication or insulin need to be adjusted?
Bedtime	<ul style="list-style-type: none"> Right before going to bed 	<ul style="list-style-type: none"> 100-140 mg/dl 	<ul style="list-style-type: none"> If I take insulin, do I need a snack?
3:00 AM	<ul style="list-style-type: none"> When directed by your physician or diabetes educator 	<ul style="list-style-type: none"> 100-140 mg/dl 	<ul style="list-style-type: none"> Is my blood glucose level appropriate during the night when I sleep?

Your physician or diabetes educator will recommend when you should check your blood glucose level. Ask your physician, nurse or diabetes educator to help you complete the chart below. Keep this chart to remind yourself of the frequency of blood glucose testing.

Prescription for Testing Blood Glucose at Home

Check blood glucose each day _____ times as follows:

Before the following meals:

- Before Breakfast ("fasting")
- Before Lunch
- Before Dinner
- Bedtime

1-2 hours after the following meals:

- After Breakfast
- After Lunch
- After Dinner
- 3 AM