

Treat Diabetes

Chapter 2

Manage Your Blood Sugar

You Will Learn About:

1. What a glucometer is, how to read it and when to use it
 - a. What is a glucometer?
 - b. How is it used?
 - c. When do you use it?
2. The A1c test
 - a. Relate your A1c test to your blood sugar levels

1. What a Glucometer Is and How to Read It

It is important to manage your blood sugar. A glucometer is one tool to help you do this.

What is a glucometer?

A glucometer is a tool that measures your blood sugar. Your glucometer shows your blood sugar results in millimoles of sugar per litre of blood (mmol/L). Buy a glucometer and testing strips at your closest pharmacy. There are many different models of glucometers so talk to your pharmacist about which model is best for you.

How is it used?

Your glucometer uses a small sample of your blood. This blood comes from your finger. The glucometer measures how much sugar is in this small drop of blood. Once the sample of blood is taken, a reading appears on the glucometer screen. The reading will be in mmol/L, such as 5.2 mmol/L. This reading tells your blood sugar level at that exact moment. Talk to your doctor to learn how often you should check your blood sugar.

When do I use it?

1. Use the numbers from your glucometer to see how your body responds to:
 - What you eat and drink
 - Your diabetes medicine(s)
 - Your exercise and activity levels
 - Your stress (or depression) level
 - Illness (a cold, infection or surgery)

Treat Diabetes

Chapter 2: Manage your Blood Sugar

2. Use your glucometer if you have signs or symptoms of low blood sugar (hypoglycemia) such as:
 - Trembling or shakiness
 - Hard to think
 - Easy to upset (Irritable)
 - Hunger
 - Anxiety
 - Tingling
 - Nausea
 - Sweating

If you experience any of the above signs or symptoms, check your blood sugar as soon as you can. Some people do not experience the signs and symptoms of low blood sugar. If you take insulin or a Secretagogue medicine, you are at risk for low blood sugar (especially after exercise).

Safety Alert!

You are at risk for low blood sugar (especially after exercise) if you take any of the following diabetes medicines:

- Insulin
- Secretagogue medicines such as:
 - Diamicron (Gliclazide)
 - Amaryl (Glimepiride)
 - Glyburide (Diabeta)
 - Repaglinide (Gluconorm)

Check your blood sugar more often. Talk to your doctor about when and how often to check your blood sugar.

3. Use your glucometer if you have signs or symptoms of high blood sugar (hyperglycemia) such as:

- Thirsty
- Tired
- Need to pee more often
- Nausea (upset stomach), stomach pain
- Blurry vision

If you experience any of the above signs or symptoms, check your blood sugar as soon as you can. Many people do not experience the signs and symptoms of high blood sugar. Talk to your doctor about when and how often to check your blood sugar.

4. You will have to check your blood sugar more often if:

- You take insulin
- You take a medicine from the Secretagogue class of medicines
- You have changes to your diabetes medicines
- You have episodes of very low blood sugar (called hypoglycemia)
- You are driving and take insulin or a Secretagogue medicine
- You are ill (with a cold, infection or having surgery)
- You started a new exercise program
- You made changes to your existing exercise program
- Your A1c is not within the normal range

2. The A1c Test

It is important to manage your blood sugar. An A1c test is one tool to help you do this.

What is an A1c test?

An A1c test uses a sample of your blood to measure how well you managed your blood sugar over the past 3 months. The A1c test counts the number of blood cells with sugar attached to them. Your A1c results are shown as a percent (%).

Why is A1c important?

Managing your blood sugar is crucial for managing your diabetes. Your A1c shows how your medicines and healthy habits help manage your blood sugar. Ask your doctor what your A1c level is. Ask them what your target A1c level is too. There are many ways to lower your A1c level. If your A1c level is higher than your target, ask your doctor and healthcare team what you can do to lower it. To lower your A1c, you must make changes to your lifestyle. These changes may include:

- Changing your diabetes medicine(s)
- Eating healthier
- Exercising more often
- Managing your stress (or depression) better
- Avoiding smoking or exposure to second-hand smoke
- Checking your blood sugar more often

How does your A1c test relate to your blood sugar?

The results of your A1c test are shown in percent (%). This is different than your glucometer. Your glucometer readings are measured in millimoles of

Treat Diabetes

Chapter 2: Manage your Blood Sugar

sugar per litre of blood (mmol/L). Your A1c tells you and your doctor how well you managed your blood sugar over the past 3 months. Both you and your doctor can use your A1c to guide how you manage your diabetes.

Use a conversion chart to relate your A1c to your average blood sugar. The conversion chart is easy to use. First, find your A1c level from your blood work. Then follow the same row to find your average blood sugar. For example, 8% A1c means your average blood sugar over the past 3 months was 11.4 mmol/L.

Use the conversion chart below.

A1c (%)	Average Blood Sugar (mmol/L)
5	5.6
6	7.5
7	9.4
8	11.4
9	13.3
10	15.3
11	17.2
12	19.2

Summary:

- A glucometer is used to measure your blood sugar in the moment
- Use your glucometer readings to learn how your body reacts to your medicines, stress (or depression), food, drink, exercise and smoking
- Listen to your body. Check your blood sugar when you notice a change
- A1c tells you how well you managed your blood sugar over the past 3 months
- Lower your A1c by lowering your daily blood sugar readings