

## Basics of Blood Sugars

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### What is a blood glucose level?

Your blood glucose (blood sugar) level is the amount of sugar in your blood. After you eat, your body breaks down food into a type of sugar called glucose. Your body uses glucose for energy.

The goal is to keep your blood sugar as close to normal as possible. Normal blood sugar levels can help you feel better, lower your risk of infection, and reduce the risk of problems caused by diabetes. Your doctor, nurse or dietitian will tell you what your blood sugar goals should be.

Here are some rules to follow:

- Your first blood sugar check in the morning, before you eat, should be between 80 and 130 mg/dL. This is called your fasting blood sugar.
- Your blood sugar before meals should be less than 140 mg/dL.
- Your blood sugar should be less than 180 mg/dL within 2 hours after you eat a meal.

### How do I check my blood sugar?

A blood glucose meter, also called a glucometer can be used to check the amount of sugar in your blood. You should check your blood sugar at different times during the day. This will help you to know if your insulin and medicine is working.

### When should I check my blood sugar?

- Ask your doctor, nurse or dietitian about when and how often you should check your blood sugar.
- Most people check their blood sugar in the morning, before meals and at bedtime.
- Check your blood sugar if you do not feel well. You may not feel well if your blood sugar levels are too low or too high.

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**This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.**

## What should I do with my blood sugar readings?

Each time you check your blood sugar, write down the results on your blood sugar record sheet. **Bring this sheet with you to every clinic visit.** A blood sugar that is too high or too low can make you sick. If your blood sugars are often high or low, your insulin or medicine dose may need to be changed.

- **It is important to call your doctor if your blood sugar is less than 70 mg/dL or over 200 mg/dL several times in a week.**

## What is a low blood sugar (Hypoglycemia)?

Hypoglycemia is when your blood sugar is **low**. This means there is not enough sugar in your blood. A blood sugar less than 70 mg/dL is a low blood sugar.

## What can cause a low blood sugar?

A low blood sugar may be caused by any of the following:

- Taking too much insulin
- Taking too much diabetes medicine by mouth
- Skipping meals and snacks
- Not eating enough at meals and snacks
- Too much exercise
- Vomiting or diarrhea
- Too much alcohol

## How will I feel if my blood sugar is low?

Signs of a low blood sugar may include:

- Feeling shaky, sweaty or nervous
- Weakness or feeling tired
- Feeling cranky
- Double or blurry vision
- Headache
- When your blood sugar gets very low, it can cause you to become confused, not think clearly and even make you pass out.

## What should I do if my blood sugar is low?

- If you have symptoms of a low blood sugar, check your blood sugar right away. **If it is less than 70 mg/dL, you need to act quickly and follow the “Rule of 15”.**
- If you have symptoms of a low blood sugar and you are not able to check your blood sugar right away, **follow the “Rule of 15”.**

## The Rule of 15 includes the following:

**Eat or drink 15 grams of a fast acting sugar.** Each of the following items provides 15 grams of a fast acting sugar.

- 1/2 cup (4 ounces) of fruit juice or regular soda (not diet)
- 1 cup (8 ounces) of skim or fat free milk
- Glucose tablets (follow the directions on the package)
- 1 tablespoon sugar, honey or corn syrup

**Wait 15 minutes and check your blood sugar again.**

- **If your blood sugar is still less than 70 mg/dL,** or you do not feel better, eat or drink another 15 grams of carbohydrate.

**Wait another 15 minutes and check your blood sugar again.**

- **If your blood sugar is still less than 70 mg/dL call your doctor.**
- If your blood sugar is 100 mg/dL or more, you will be fine. You may feel tired for a short period of time. If it is close to meal time, you can eat. If your next meal time is more than 1 hour away, eat a snack of 30 grams of carbohydrate with a protein (for example 1/2 sandwich and a cup of milk).

## Are low blood sugars a problem?

- Yes, low blood sugar can lead to serious health problems. If your blood sugar gets too low you could pass out.
- Do not eat or drink too much sugar when your blood sugar is low. This may cause your blood sugar to go back up too high.
- If you have low blood sugars more than 2 to 3 times in a week, call your doctor. Your medicine may need to be changed.

## What should I do if I do not have my blood glucose meter?

It is important to **always** have a meter with you to check your blood sugar. If you find yourself without a meter and think your blood sugar is low, follow the “Rule of 15” until your symptoms get better. Check your blood sugar as soon as you can get to your meter.

## What is a high blood sugar (Hyperglycemia)?

Hyperglycemia is when your blood sugar is too **high**. This means there is too much sugar in your blood. A high blood sugar can happen when you:

- Do not take enough insulin
- Take your insulin too late
- Eat foods high in sugar or carbohydrates
- Have stress
- Have an infection or illness
- Take a steroid medicine

## How will I feel if my blood sugar is high?

Signs of a high blood sugar may include:

- Blurry vision
- Dry mouth
- Thirsty
- Urinating often
- Feeling tired

Some patients with a high blood sugar have no symptoms at all. It is important to monitor your blood sugar levels.

## What should I do if my blood sugars are high?

Follow your carbohydrate counting and/or sliding scale insulin orders. If your blood sugar stays high, above 200 mg/dL, call your doctor.

## **How can I prevent low or high blood sugars?**

Here are some tips to help prevent your blood sugar from going too high or too low:

- Always eat the same amount of carbohydrates
- Eat your meals at regular times
- Do not skip or delay your meals
- Try to eat a balance of protein, fat and carbohydrates
- Take your insulin as your doctor has ordered