

## what to do with blood sugar results

1. **At first, keep a written record of your results.** These records will help you see patterns and manage them correctly, and understand dose adjustments. The diabetes team can provide you with blood sugar records that you can use.

**Example of a glucose record:** You will need to write the following information in the hour closest to the time the event occurs.

date		12am	3am	6am	7am	8am	9am	10am	11am	12pm
Blood sugar	BG									
Number of carbs	Carbs									
Units of insulin given	Insulin dose									
Gym class, etc.	Exercise									
Ketone level	Keytones									

2. **After being discharged from the hospital, you will need to call in blood sugars daily to the diabetes team.** You will receive discharge instructions with your doses, basic daily instructions, and the phone numbers needed to contact the diabetes team. These numbers are in the beginning of this manual.
  - Each glucose meter has software you can use to load the blood sugars from the meter to a computer. You can often download the software from the meter manufacturer's website.
3. **After the diabetes physician (called an endocrinologist) sees you for your follow-up appointment, you should call as your physician directs and when you suspect a need for insulin adjustments.**
  - Blood sugars will increase when your child has growth spurts, has an illness or is stressed (example: school tests).
  - Even though the child is doing nothing wrong, sometimes they will feel that they will get in trouble if their blood sugars are high. It is important not to label blood sugars as good or bad. The numbers are just measurements.

## ketone testing

### when to test for ketones

- Always if blood sugar is above 300 mg/dl.
- Always if your child feels sick or nauseated, even if the blood sugar is under 300 (especially if she/he vomits, even once).
- For the first week after diagnosis, also check the urine for ketones every morning.

### how to check for ketones: using strips

- Completely cover the colored square on the end of the strip by dipping into fresh urine.
- You can hold the strip directly in the urine stream or the urine can be collected in a cup.



Always confirm written records with the meter's memory. If the wrong blood sugars are given to the team, it could lead to harmful dose adjustments.

- If the child is in diapers, cotton balls can be placed in the diaper and the strip can then be pressed on the wet cotton ball.
- Compare the test area closely with the color chart. Hold the strip close to the color block and match the colors carefully. The timing is very important.
- Ketostix: Read the ketones at exactly 15 seconds after dipping the strip.

### blood ketone meter: Precision Xtra

For toddlers who aren't potty trained, and older kids in the middle of the night, Precision Xtra could be a good option. Follow up with your care team to see if it will be a good fit for your child.

### what to do if ketones are positive

1. Notify the diabetes nurses or physician if ketones are moderate to large. More insulin may be needed due to the illness and ketones.
2. Have your child rest or play quietly. They should avoid exercise until ketones are gone. Exercise can make ketones worse.
3. Encourage fluid intake, especially water.
4. Recheck urine until ketones are negative.
5. Give insulin as ordered by physician or by your ketone correction scale. If you do not have a ketone correction scale, please contact your provider.
6. Record the result of the ketones in your blood sugar record. You can use the following letters or numbers to record the result:

ketone results	blood ketone results	what to write in record
Negative	0.0-0.6	N or 0
Trace	N/A	T or 5
Small	0.7-1.0	S or 15
Moderate	1.1-1.5	M or 40
Large	Above 1.5	L or 80
Large-Large	N/A	LL or 160

## insulin and injections

Insulin is a hormone made by the beta cells in the pancreas. Insulin allows sugar to go from the bloodstream into the body's cells so it can be used for energy. Insulin lowers blood sugar.

### insulin facts

- A person cannot survive without insulin. Insulin is needed in the body 24 hours a day, even if you are not eating.
- People with type 1 diabetes make little or no insulin. So, they need multiple insulin injections in a day. This is because there is not a single insulin which can completely control the blood sugars throughout the day. Therefore, an injection will be needed with each meal and at bedtime.
- People with type 2 diabetes may still produce insulin, but are unable to use it well. Some may need insulin to help control blood sugar levels.
- At this time, insulin does not come in a pill. But, this is being researched.