



Sierra Endocrine Associates

Medical Group

Endocrinology, Diabetology, & Metabolism

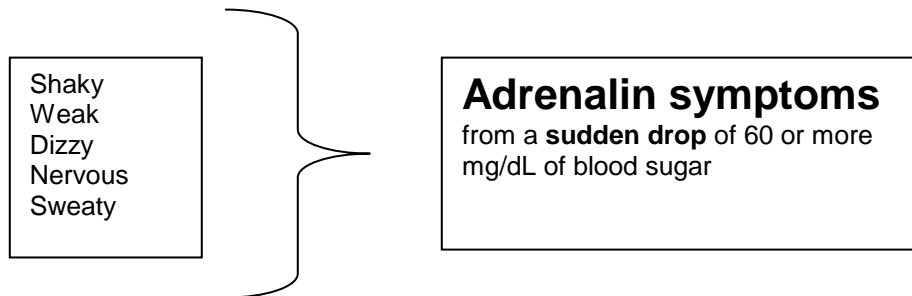
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Treating Low Blood Sugar

Low blood sugar, also called hypoglycemia, can feel awful but is rarely dangerous. Many people get early warning signs of low blood sugar. These include feeling:



This is best treated with fast-acting sugar. First, test your blood sugar to be sure that it is low (under 70). Then eat or drink something that will replace the missing blood sugar. The fastest relief comes from replacing glucose, using 4 glucose tablets (Dex 4 or store brands). Several other sugar sources also act quickly:

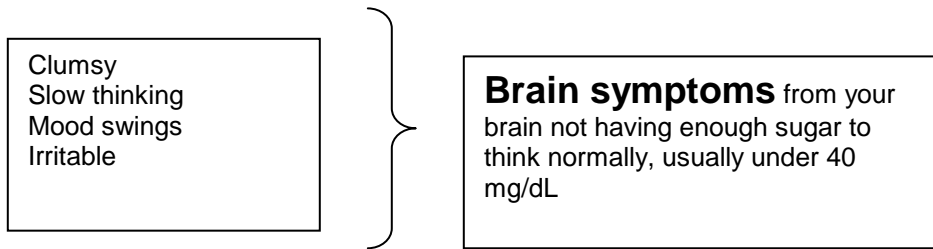
- 6 oz. regular soda
- 6 jelly beans (or 15 Jelly Belly beans)
- 3 B-D brand glucose tablets

Usually your blood sugar will return to normal within 15 to 30 minutes. To be sure that this was a mild low blood sugar, it is wise to test your blood sugar a second time about 30 minutes after you eat the sugary food to make sure you are back over 100 mg/dL. Candy bars, fruit juice and food are not as helpful because they do not get digested and turned into blood sugar as quickly. Then your liver has to empty its stored sugar and you are more likely to have another low blood sugar episode later.

Moderate to severe hypoglycemia

Not even the most conscientious person can prevent every low blood sugar. That is why you need to have fast-acting sugar available. Occasionally, you may experience a moderate low blood sugar. This means you did not have your blood sugar rise up enough after treating the low. When you test the second time if you are still under 100, then either eat a meal (if you are due to eat) or eat a small snack if it is more than 30 minutes to the next meal.

Rarely, people taking some diabetes medications can have a severe low blood sugar episode. This is a low blood sugar reaction that you could not treat yourself; someone else had to recognize the problem and either feed you sugary food or call for emergency help. After years of having diabetes, you may no longer get the early warning feelings, but you will still get some warning with neuroglycopenic symptoms. That is, your brain will give you some warning because it will not have enough sugar available to function completely normally.



If you treat a low blood sugar and the follow-up test in 15 to 30 minutes is still under 80, you may be at risk for having a severe low. You should:

- Continue treating the low with fast-acting sugar and testing every 15 to 30 minutes until you are over 100 mg/dL
- Eat a meal once you are over 100 (and take less insulin if you take insulin)
- Alert family members or friends so that they can either check on you or treat a low if you are not able

Ask your doctor if you need to have a glucagon emergency kit available.

To help prevent lows

- Identify the time of day that most lows happen
- Try to figure out if there is a likely cause: a change in medication? Change in exercise? Change in food eaten?
- Try an experiment to see if you can correct the pattern of frequent lows
- If lows continue to be frequent or severe, contact Sierra Endocrine Associates by calling the office to report blood sugars and describe the problem at 431-6197. You can also fax a report of blood sugars and medication taken to 431-8827.

Remember, stress hormones released during a low blood sugar can make you feel panic. When you feel panicky it is easy to over eat. This can set up swings between high and low blood sugar and cause weight gain. If a blood sugar goes high after a low, you are probably eating too much to treat the low.

Nighttime lows

Nighttime lows can be miserable: you can wake up shaky and sweaty, have nightmares, wake up the next morning not feeling well or with a headache. Often you will have an unusually high blood sugar in the morning after a nocturnal hypoglycemic episode. In extreme cases, you can have some memory loss from a severe low. These need to be prevented. Contact Sierra Endocrine Associates if you do not know what to do to prevent nighttime lows from occurring.

It is best to have the three-step plan for treating lows as an established habit. That way you are more likely to prevent repeated lows or severe lows. Remember,

- 1) Test blood sugar if possible
- 2) Eat or drink 15 to 20 grams of fast-acting sugar
- 3) Wait 15 to 30 minutes and test again to see if further action is needed.

It is also wise to develop and agree on an action plan with family, friends and co-workers before a problem situation occurs. Your introduction to a conversation might be: "You know I have diabetes. I usually can balance food and medicine/ insulin pretty well. Sometimes I end up with more medication than I needed and my blood sugar can drop too low. When this happens I may be confused or act strange. All I need is some sugar and in 10 minutes I should be fine. I keep _____ (fill in the blank with what you keep handy to treat lows) in my desk drawer (or wherever). If I don't respond within 15 minutes, then call 911." Experience shows that it is far better to have an advance plan than to have close contacts experience a severe low without any preparation.

If you experience frequent or severe lows, consider keeping a glucagon kit available at home and at work. Remember the greatest risk for a severe low is within 48 hours of a previous severe low. It is wise to decrease time-release insulin by 10% after a severe low.

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