

## Dealing with diabetes: day to day

Levels: 1, 2 and 3

**Subject:** How much glucose is right?

TEACHER

STUDENTS

1/2



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If a healthy person were to check their glucose levels at the start of the day, before they'd had something to eat, they could expect a reading of, anywhere, between 65 and 110 milligrams of glucose per deciliter of blood (mg/dl). If the same person did a check after a meal, the reading would not exceed 140 mg/dl. This state we call **NORMOGLYCEMIA**.

Given that a person with diabetes will find it hard to stay within such parameters, diabetes specialists have established other, more attainable, goals.

Thus, for a person with diabetes, a pre-mealtime reading of between 65 and 140 is considered acceptable; and, similarly, no-one should be alarmed if, two hours after a meal, the glucometer delivers a reading greater than 140, yet lower than 180 mg/dl.

A person, whose glucose levels fluctuate between 180 and 300, needs – without further delay – to address the fact that their diabetes control therapy is not having the required effect and needs adjusting.

When glucose levels climb above 300, then, the situation is considered to be serious. This state we refer to as **HYPERGLYCEMIA**. When this happens, a student with diabetes is likely to feel an abnormally frequent need to urinate.

If, on the other hand, the glucometer delivers a reading under 65, this is a warning that the child is suffering from **HYPOGLYCEMIA**. The child should, immediately, have something to eat or drink, to replenish their body's glucose supplies that have started to run low. Fruit juices and sugar cubes are among the most popular instant remedies, which is why it is never a bad idea to have a couple of each of these, on hand – they keep well, in a drawer! – just in case.

A child suffering from **HYPOGLYCEMIA** will display a series of symptoms; signals the brain sends out, to warn him or her that 'brain food' levels are running low. Though symptoms will vary, the most common are: feeling dizzy, sweating, feeling weak, feeling hungry or, sometimes, become irritated.

Once something with a high sugar-content has been ingested, a short rest is all it takes for the child to feel fully recovered; usually, no more than about 5 minutes.

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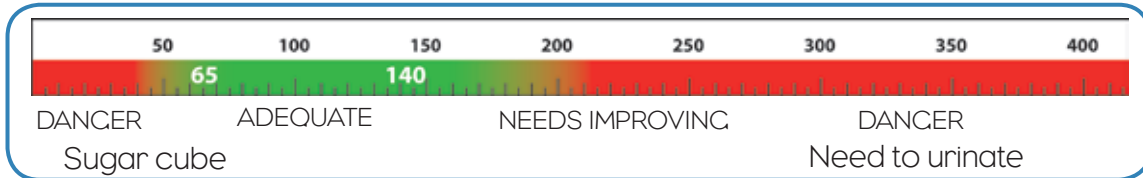
TEACHER

STUDENTS

2/2



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## A QUICK WORD, ABOUT TERMINOLOGY

Granted! Phonologically speaking, the words **HYPOGLYCEMIA** and **HYPERGLYCEMIA** are very similar and people do tend to confuse them! However, they are radically different, both in concept and as regards the kind of response action that both one and the other will require.

One way to help your students distinguish between the two is to write 'HYPER', on the board, and give a few examples of other words that also begin with this prefix: HYPERmarket, HYPERspace, HYPERsensitive, HYPERtension... Then, you can do the same with "HYPO", only specifying that it means exactly the opposite!

**Did you know...** When, during an event, a sports commentator refers to a cyclist, runner, etc., as having "bonked" or "hit the wall", what they're really saying is that the person is suffering from

**HYPOGLYCEMIA?**

## SUGGESTED ACTIVITIES

TITLE	DESCRIPTION	LEVEL	REF.
Working with numbers (4)	Relating figures to Hypoglycemia, Normoglycemia, Hyperglycemia	2	14
What's your glucose level? (1)	Working with data and charts	2	16
What's your glucose level? (2)	Working with data and charts	3	17
	COMPUTER ANIMATION		