

TYPE 1 DIABETES AND ACADEMIC PERFORMANCE: WHAT WE SHOULD KNOW



Glycaemic variations and cognitive functioning

Both hypoglycaemia (blood glucose level below normal) and hyperglycaemia (blood glucose level above normal), may have a momentary impact on the cognitive capabilities of boys and girls with type 1 diabetes (DM 1). People in their immediate environment must be informed and provide adequate support for their positive adaptation to scholastic demands.

Asociación para la Diabetes de Tenerife.

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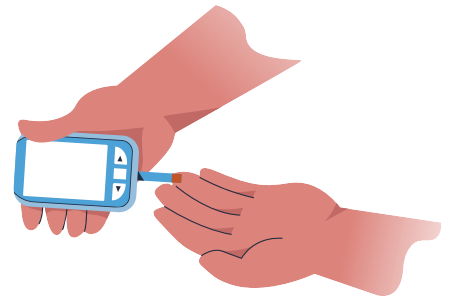


Effects of Hypoglycaemia on the ability to learn



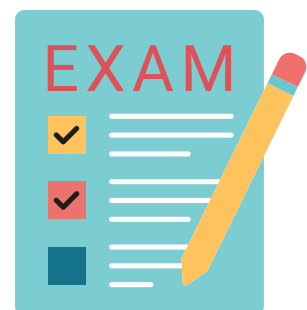
Hypoglycaemia can impair learning and the ability to sustain attention, think critically, and solve problems, and be associated with feelings of anxiety, restlessness, or low energy.

The boy or girl may experience hypoglycaemia without realizing it, which prevents treatment of the low glucose level in a timely manner or to let other people know of the child's needs.



Children who experience hypoglycaemia may be reluctant to report their symptoms to teachers because of fear of shame or social stigma. When any of these situations happens, the cognitive performance of the student may be momentarily affected, and it is possible that they may not be able to complete tasks or retain knowledge of the information that is being taught to them.

An important fact is that cognition can be affected for 30 to 60 minutes after an episode of hypoglycaemia, so should it occur during the course of an exam, the said exam should be invalidated.



We recommend that before an exam (15 or 20 minutes) you check your glucose levels to reduce the chances of having hypoglycaemia or hyperglycaemia that may affect performance.

Effects of hyperglycaemia on the ability to learn.

Although there is no firm evidence that acute hyperglycaemia negatively affects cognition during school, related symptoms such as reduced energy and general discomfort, in addition to frequent use of the toilet that these occasions necessitate, can make it difficult for boys and girls with diabetes to achieve optimal academic performance.

Remember:

Both hypoglycaemia and hyperglycaemia can have a momentary impact on the cognitive abilities of boys and girls with DM 1.

School staff should allow you to monitor your glucose levels (unless through continuous glucose monitors or blood glucose meters) with frequency and take measures to return it to the target range.

It is proven that training staff and the class, and allowing them flexibility in the care of DM 1, benefits your blood glucose results, your quality of life and mental health.

Students with DM 1 have daily challenges at school that, with attention and the right support, they can face them successfully.

At the Asociación para la Diabetes de Tenerife we offer free advice to the educational community about appropriate care for students with DM 1. Here you can get more information and resources.

<https://www.diabetenerife.org/diabetes-y-centros-escolares/>.

Fuentes:

- Lawrence SE, Albanese-O'Neill A, Besançon S, et al. Pautas de consenso de práctica clínica ISPAD 2022: Manejo y apoyo de niños y adolescentes con diabetes en la escuela. Diabetes pediátrica.2022; 23(8):1478-1495. hacer: 10.1111/pedi.13432
- Wagner J, Heapy A, James A, Abbott G. Brief report: glycemic control, quality of life, and school experiences among students with diabetes. J Pediatr Psychol. 2006;31(8):764-769.

Translated by David Waugh

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