

FACTS ABOUT DIABETES AND HELPFUL INFORMATION

Diabetes is a disease in which the body's ability to respond to or produce insulin is impaired. This results in an abnormal breakdown of carbohydrates and high levels of glucose (sugar) in the blood.

There are 3 main types of diabetes. But, in school kitchens, we encounter 2 types:

- Type 1 Diabetes: this is sometimes called “juvenile diabetes” and is insulin dependent.
 - People with this type of diabetes are born with this and it is typically a genetically inherited trait. This means they cannot control it without the use of insulin injections or an insulin pump.
 - While this is rare, it is the one that we see the most in schools. The majority of children requesting information in schools have this type of diabetes.
 - This type of diabetes cannot be reversed without major surgery and organ transplants (normally only done in adults). So, most people live with the insulin dependency for most their lives.
- Type 2 Diabetes: This used to be referred to as “adult onset diabetes” or “non-insulin dependent diabetes”.
 - This is the most common form of diabetes in the UK (2.7 million people with Type 1 vs. 300K with Type 2). However, though this is becoming common in younger people, we rarely see it in schools.
 - Type 2 diabetes can be managed with diet, exercise, and medication. Some people can reverse their type 2 diabetes with proper care. In extreme instances Type 2 diabetes will have to be controlled by insulin.

For our purposes, all the below information refers to Type 1 Diabetes.

There are 3 main components of calories:

- Protein
- Fats
- Carbohydrates

Sugar (glucose) is contained and counted in the carbohydrate section. So, students who are injecting insulin before/after meals need to count their carbohydrate content to give them a gauge of how much insulin they will need to counteract what they will/ have eaten.

It is becoming increasingly common for students to inject themselves before lunch. In recent years, studies have proven that this is best for younger children to manage their insulin.

However, this comes with some implications for the kitchens.

- Because a student has already injected their insulin, they need to have the specific amount of carbs that they have injected against.
- A new report for carbohydrate calculation has been designed to take into account the actual portion sizes that you are serving.
 - We are going to be using a mix of supplier ingredient information with back up from the Carbs and Cals book (this is used by almost all diabetics).

- This will make the diabetic portions look more like the portions you're serving to other children.
- Parents and schools can request this information by contacting me on the allergens account.
- Because the diabetic children will be injecting against a specific meal, it will be helpful with schools that do not have pre-order systems in place, to have the school alert them to the meal the child has chosen before lunch. This way you can ensure that you have the specific meal available.
 - If any parent contacts me for carbohydrate information, I will alert the kitchen to the student as I would an allergy child.
 - All diabetic children will usually have an adult support (usually a first aider or school nurse) at the school. On rare occasions, the student may not eat all of their meal. If this happens, the adult support may contact the kitchen in order to help the student meet their carb requirement. I have created a list of products, that we generally have on hand, along with their carb count. This can be given to the adult support to choose which option will best suit the child.
 - This should only be given to the adult support. **DO NOT** give this to a child without the adult support there to supervise.

What happens if the insulin isn't controlled correctly?

- Hypoglycaemia:
 - This occurs when the blood sugar drops too low. This can happen if the student has injected their insulin and then eaten too few of the carbohydrates they injected against. For Instance:
 - A child has injected for 45g of carbohydrates but only eaten 25g of carbohydrates.
 - It can also occur if the student injects too soon before a meal.
 - The result is that there is too much insulin in the blood.
 - This can cause people to become faint, weak, fatigued, high heart rate, blurred vision, and in extreme cases coma.
- Hyperglycaemia:
 - This occurs when there is too much sugar in the blood.
 - This occurs if they miss a dose of insulin or they don't inject enough insulin to counteract the carbohydrates in a meal.
 - This can cause people to experience frequent urination, increased thirst, tiredness, and blurred vision.

It is for these reasons that we suggest that when you first have a diabetic student come into the school, you weigh out their portions for the first few weeks. You will need a small digital scale and this can be obtained by coordinating with your Operations / Area Manager.