Insulin is a hormone that regulates glucose levels. For people with type 1 diabetes, the body no longer makes insulin. It’s essential that they take insulin every day to live.

Students with type 1 diabetes use different types of insulin at different times of the day.

Insulin is delivered in different ways. Some students give injections using either an insulin pen or, less commonly, a syringe.

Other students use an insulin pump which delivers insulin continuously throughout the day.

Depending on their age and confidence some children will need support, supervision or assistance to take their insulin.

A diabetes treating team will outline the specific support needed by a student in a student’s diabetes. The plan will document whether the student can work out their own insulin dose or needs support from a staff member. Importantly, school staff should not be expected to make independent clinical decisions about insulin doses. They may be expected, with training, to follow a documented method to work out an insulin dose.
## Insulin administration at school

### Insulin via an insulin pen injection or syringe

Students who inject insulin via a pen or syringe take different types of insulin at different times of the day.

**Mealtime insulin** is given when a student eats carbohydrates, this is also known as bolus insulin. Bolus doses of insulin use a rapid-acting insulin and manage the rise in glucose level following a meal.

Sometimes, an additional dose is given to adjust a high glucose level. This is known as a correction dose or bolus.

**Basal insulin** is also known as background insulin. Basal insulin affects a student’s glucose level overnight and in between their meals. It is usually given at home although it may be given in the school setting if the student attends an overnight school camp.

Some students may use mixed insulin which is not given at school.

Insulin is absorbed best given in the fatty layer just beneath the skin. The preferred site to administer insulin is the abdomen, although it can be given in the outer thigh or buttock. The diabetes treating team will explain a student’s preferred insulin site, and their insulin delivery method in the student’s management plan.

### Insulin via an insulin pump

Another way to deliver insulin is via an insulin pump. An insulin pump is a small computerized device that delivers insulin through a soft plastic tube inserted underneath the skin. The pump is programmed to deliver a small amount of background (basal) insulin continuously 24 hours a day. The pump must be activated by the user to deliver extra insulin each time a meal or snack of carbohydrate is eaten (mealtime bolus).

An extra dose of insulin can also be given to treat a high glucose level (correction bolus).

### Reasonable adjustments

Reasonable adjustments are supportive actions that schools make to support a student with their diabetes management so they can fully participate in school life. Examples of reasonable adjustments may include:

- Ensure current management plans are available
- Ensure staff are trained on insulin administration
- Ensure a safe, comfortable and private area for student to administer insulin if preferred, otherwise where the student is comfortable, i.e. classroom
- The parent may provide specific advice around insulin when their child participates in sport, excursions, camps, exams and other activities
- Infection control including providing clear instructions to staff on how to prevent infection and cross contamination when checking blood glucose levels and administering insulin

### Links