

DIABETES INSULIN PUMPS

For education, child/care and community support services

What is an insulin pump?

An insulin pump is an alternative way of delivering insulin under the skin. Insulin pumps, if well managed, enable the student to improve their diabetes control and reduce the incidence of low blood glucose levels (hypoglycaemia). Insulin pumps also allow more flexibility in the timing and content of meals and snacks and reduce the need for injections. Insulin pumps are becoming increasingly popular with children and adolescents with type 1 diabetes.

How does an insulin pump work?

An insulin pump is a small computerised device that is programmed to automatically deliver small amounts of background (basal) insulin continuously 24 hours a day. In addition, the pump needs to be activated to deliver an extra burst (bolus) of insulin every time carbohydrate food is eaten. An extra bolus of insulin can also be given to correct a high blood glucose level. To activate the pump to deliver a bolus of insulin, the student enters their blood glucose level and the amount of carbohydrate food they are going to eat into the pump. The pump then automatically calculates the correct amount of insulin required and the student activates the pump to deliver this amount.

The pump delivers insulin via a small tube which is inserted under the skin. This tube needs to be replaced every three days at home. The pump can be disconnected for short periods (1-2 hours) during the day for showers, swimming or contact sports. In case of insulin delivery problems via the pump, insulin for injection should always be available at school.

Younger children, who cannot take on the responsibility of delivering insulin boluses without parental supervision, can have their pump programmed to automatically deliver a set amount of extra insulin at recess and lunch. If the pump has been programmed in this way, it is important that all the food provided for recess and lunch is eaten and eaten on time to prevent low blood glucose.

How is management of students with diabetes different on the pump?

The management of students with diabetes on insulin pumps is not very different to the management of students on insulin injections. The important differences are listed below and will be detailed in the student's individual care plan and first aid flow charts:

- Low blood glucose levels are often easier to treat.
- High blood glucose levels need to be taken more seriously as they may indicate an insulin delivery problem.
- Exercise management can include reducing insulin delivery via the pump or disconnecting the pump for swimming or contact sports.

Where can I find more information?

www.chess.sa.edu.au

www.diabetessa.com.au

