

Paediatrics

Patient Leaflet

Children with Diabetes becoming ill



Children with diabetes should not experience more illness or infections than their siblings or peers without diabetes.

However, it is likely that any illness will have an impact on diabetes control.

In general, illnesses associated with a temperature will cause the blood glucose levels to rise. Many families notice that insulin requirements increase a few days before their child has symptoms of an illness, and that this increased need for insulin persists several days after the illness has stopped.

Illnesses where there is diarrhoea or vomiting are likely to cause the blood glucose level to drop and there is often difficulty in maintaining adequate carbohydrate intake. These problems may lead to a need for a reduction in the insulin dosage.

General principles:

- **Never stop insulin** - The insulin dose may need to be increased or decreased depending on the glucose and ketone level.
- Encourage fluids to prevent dehydration
- Increase the frequency of monitoring of blood glucose and blood ketone levels. High blood glucose levels and ketones are an indication that more insulin is needed.
- **Ketones are very dangerous** - Ketones are acids which can quickly make you feel very unwell. They may make you vomit or you may become breathless. If ketones persist you may develop Diabetes Ketoacidosis (DKA). DKA may cause you to become extremely unwell and you may require urgent hospital treatment. Ketones may still be produced when you are ill, even if your blood glucose levels are low therefore always check for ketones if you feel unwell, regardless of your blood glucose level.

As previously stated, never stop giving your child insulin even if they are not eating (if not eating see dietary management below).

What else do I need to do?

- **Test blood glucose and blood ketones levels more often than usual** - Check this every two to four hours.
- **If blood glucose levels are high and ketones are present (greater than 0.6mmol/l) the body does not have enough insulin.**
- **It is important to encourage your child to drink more** - A combination of having high blood glucose levels, a high temperature and ketones will increase the risk of your child becoming dehydrated. Aim for approximately five pints of sugar free liquids, especially water, a day. This is approximately one glass every hour. If they cannot manage a whole glass at once, get them to take regular sips.

How much insulin should I give my child?

- If blood glucose level is less than 14mmol/l, give their usual insulin and remember to check blood ketones.
- If blood glucose level is higher than 14mmol/l extra insulin is required. If you have been given a correction factor or are using a bolus advisor meter (Expert) follow this advice. If you are at all unsure please contact PDSN's for advice. **Remember to always check for blood ketones if blood glucose levels are rising.**

Dietary management

Children and young people may not feel like eating when they are unwell. This does not matter – continue to give quick acting boluses of insulin for any carbohydrate eaten/drunk if their blood glucose level are within or above their target range and/or to correct high blood glucose levels.

If your child is vomiting they are advised to eat a light diet e.g. toast or crackers. If blood glucose levels are dropping or are low because of nausea and/or vomiting or refusal to eat encourage your child to have drinks containing glucose. Some examples are below, aim for 20 grams per hour.

Each of these contains 10 grams of carbohydrate:

Fruit juice (unsweetened)	100ml
Lucozade	50ml
Coca Cola (not diet)	150ml
Lemonade (fizzy/sweetened)	150ml
Ice cream	one briquette/scoop
Jelly (ordinary)	two tablespoons
Yoghurt (fruit)	60mg
Ice lollies/ice pops	one lolly

Please contact the Diabetes team or use your 'red box access' if your child is experiencing any of the following or you are concerned:

- Unable to keep fluids down
- Persistent vomiting
- Persistent diarrhoea
- Unexpected/unexplained high blood glucose levels with ketones
- If your child develops abdominal pain, become short of breath or drowsy
- Your child is not improving or becoming drowsy
- Blood glucose levels stay high, even after treatment, or they are low
- You are unsure of how much insulin or fluid to give your child
- You are worried and need advice

Diabetic Ketoacidosis (DKA)

The symptoms of ketoacidosis are thirst and passing large amounts of urine, followed by abdominal pain, sickness, vomiting, drowsiness and heavy laboured breathing.

It is very important to prevent DKA from happening. Never miss out insulin injections especially when you are unwell. If DKA develops, it must be recognised and treated quickly.

Ketoacidosis is a serious condition. You must seek medical help if you develop the symptoms of DKA.

Contact the Paediatric Diabetes Specialist Nurse on 01908 996 522 for support and guidance. However if they are not available, ring Ward 4 on 01908 996 367 and speak to the nurse in charge.