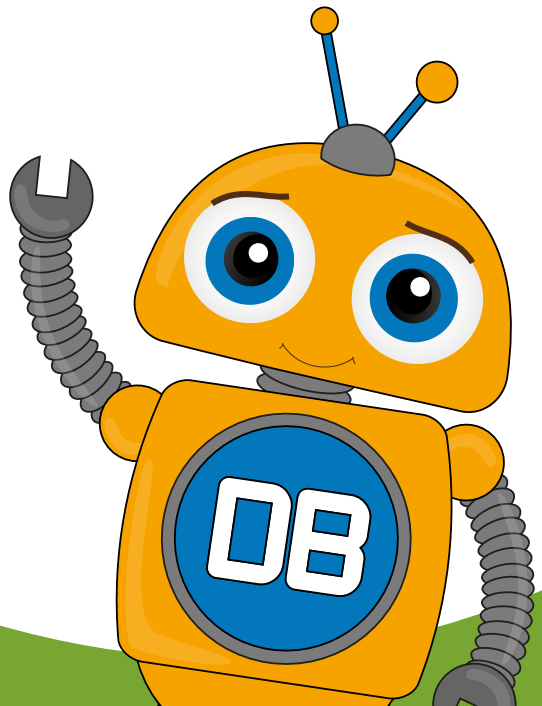
DigiBete

DigiBete Structured Education

Goals of Diabetes Education

Resources relevant for 0–5 year olds

This handout is designed to explain what your child needs to know about the management of diabetes. It has been tailored to the educational needs of 0-5 year olds.



DigiBete Structured Education

Goals for 0–5 year olds

HANDOUT FOR PARENTS

A few words about this age group

Parents should copy the learning available in nurseries and early years settings – colours, numbers, early phonics, storytelling and imaginative play. Children may ask a lot of why, when, how questions.

The preschool period is a time of rapid development of children's thinking abilities or cognition. Children use routines to help their understanding of events.

At this stage, parents/carers, with the support of healthcare teams, are completely responsible for the child's daily diabetes care.

You are encouraged to model positive diabetes care, to vocalise and use 'think aloud' explanations of what you are doing with your child, rather than just doing it to them. For example, 'We need to change your cannula or give an injection. Let's choose a site together.' Social learning theory which provides the foundation for behaviour modelling, says that most behaviours are learned by observation and modelling. Your child should be encouraged to help with some diabetes tasks or parts of the tasks if they are old enough and able. It will depend at what age they are diagnosed as to how involved they are.

Diabetes Knowledge:

Depending on age – children may be able to state in their own words that:

- They have diabetes – they may know the word even if they do not know what it is.
- Their body needs insulin every day.
- They need injections or wear an insulin pump.

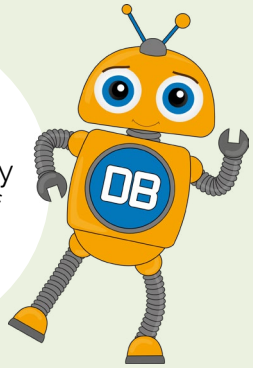
Story books are available to help with understanding of Type 1 diabetes.

Video resources showing other children with Type 1 diabetes can be shared.

Children should be told that:

- Diabetes is lifelong and will not go away.
- It is not their fault or anyone's fault they have diabetes – they didn't do anything wrong.
- Diabetes is not catching/contagious – their siblings or friends will not catch diabetes from them.

Diabetes words and routines may become part of children's play.



Food

Children of this age need structure around mealtimes to allow positive learned feeding behaviours.

- Have regular meal and snack times so the child is not too hungry or too tired to eat.
- Continuous eating or 'grazing' should be avoided.
- Eating together as a family or with siblings makes it a social occasion.
- Offer small, age appropriate portions so they are likely to eat what is offered and not put off by too much food.
- Small, nutritious food snacks between meals at set times should be expected for this age group.
- Gradually introduce new foods and give lots of praise when eating, no matter how small.
- Let young children feed themselves with finger foods and then using children's cutlery.
- Limit mealtimes to 20 minutes.
- Insulin doses may need to be split around a meal if the child is an unreliable eater, to reduce the risk of hypoglycaemia.
- Replace uneaten carbs with alternative food carbs – milk, yogurt, fruit, plain biscuit, rice cakes – rather than hypo treatment or a sweet option.
- All children under 5 should receive a vitamin supplement (A,D,C) irrespective of diabetes.

Children should:

Know to ask an adult before taking or eating food.
Know that they need insulin at mealtimes (via injections or a pump).
Be offered and encouraged to try a wide variety of foods.

Exercise

Activity and active play should be encouraged as part of a healthy lifestyle and is an important part of diabetes management – parents should create opportunities for this to happen. Play in the garden, park, walking the dog, a bike or scooter ride all count as active play. If participating in a structured activity (swimming, soft play session, sports) additional precautions may be needed to prevent hypoglycaemia. Children under 5 should be active for 3 hours per day.

- Extra carbohydrate may be necessary if glucose is less than 7mmol/L before activity.
- Insulin reductions can be made or glucose targets increased if exercise is planned.
- Check glucose before outdoor play which is likely to be more physical and affected by temperature.
- Use of a continuous glucose monitor is hugely beneficial in this age during activity.
- If glucose is above 14mmol/L, a ketone check should also be performed to ensure sufficient insulin on board and cannula or infusion site checked for leaks or displacement.
- A supervising adult should have easy access to hypoglycaemia treatment and know when to use it and how much to use.

Your child should:

- Know they might need a snack before exercise.
- Enjoy being active and having fun with family and/or friends.
- Know that diabetes will not stop play, but to report if they feel funny.

Diabetes Technology

Very young children may be offered technology to help manage their diabetes. This may include continuous glucose sensors (preferably with alarms to alert to low or high glucose levels), smart insulin pens, insulin pumps or automated insulin delivery systems. These devices may be used separately or together to create a safer environment for the child and provide more information to the adults caring for them.

Any adult caring for a young child with diabetes should have appropriate and ongoing training and support from healthcare staff or a parent, to ensure they feel confident in operating or using the technology.

You should understand the importance of injection or cannula rotation and how to look after skin around sites.

Insulin

Insulin administration via injection or insulin pump is an adult's responsibility. Anyone caring for a child with diabetes should have appropriate training from parents or healthcare staff to allow safe administration of insulin.

With supervision, children may help with the process by:

- Finding the injecting device/cannula set.
- Deciding a new site for the injection/cannula insertion.
- Counting to 10 after insulin has been injected.

Children may know, depending on age:

- That an adult will give their insulin via injection or insulin pump.
- That their insulin pump is not a toy.
- That they need to wear their insulin pump most of the time.
- That only an adult can make their pump work.
- That other children should not touch their pump.

Glucose Monitoring

A glucose monitoring system with alarms is the safest way of managing diabetes in this age group. Regular blood glucose checks throughout a 24h period (including overnight) should be done by an adult if there is no access to a glucose sensor. 6-10 checks per day are optimal if there is no glucose sensor. Parents should respond promptly to alarms at all times of day or night.
A blood glucose check is required if symptoms do not match sensor glucose readings.
Some glucose sensors do not require blood glucose checks to confirm hyperglycaemia or hypoglycaemia.

Children may, depending on age and length of diagnosis:

- Know that their glucose sensor is not a toy.
- Know that they need to wear their sensor most of the time.
- Know that different fingers are used for checking blood glucose values.
- Be able to scan their own sensor, if required.
- Listen for an alarm and tell an adult if they hear one.
- Recognise glucose numbers that are too low 3.9mmol/L is a recommended value for initiating hypo treatment.

Hyperglycaemia or HYPER = High Glucose Level (10mmol/L or more) and Illness

High glucose levels are likely to cause symptoms of thirst, increased wet nappies or bed wetting, tiredness, misbehaviour or emotional behaviour, or maybe a sign of illness (see below).

If glucose levels are constantly high over several days, insulin adjustments may be needed and parents should contact their team for guidance. Rapid periods of growth can cause higher glucose levels, needing adjustments to insulin.

Children in this age group are more likely to have regular childhood infections, irrespective of diabetes. These illnesses may often cause high glucose levels as the body tries to fight the infection. Vomiting or diarrhoea may cause low glucose levels.

Blood Ketone levels should be monitored during any type of illness episode, even with low glucose levels. Young children can become ketotic more quickly than older children.

Contact healthcare staff for advice during illness. Never stop insulin during illness. Sometimes admissions to hospital for fluids and insulin cannot be avoided in this age group.

Young children are more likely to have 'starvation ketones' first thing in the morning, due to long periods of sleeping and fasting overnight. These are not associated with illness and will clear quickly when breakfast is given with insulin.

Hypoglycaemia or HYPO = Low Glucose Level (3.9mmol/L or less)

Children in this age group may have less or no awareness of hypoglycaemia or may not be able to communicate their feelings of hypoglycaemia. Regular checking of sensor glucose readings or checking blood glucose and acting accordingly, is important for safety. Parents should use language reflecting hypo treatment as a medicine, not a sugary treat.

If a hypo is identified, ask the child if they feel 'different' or 'funny', to try and train them to associate these feelings with low glucose values.

Children should:

- Be encouraged to say how they feel if a hypo is identified.
- Tell an adult immediately if they do not feel well.
- Know they need a sugary drink or tablets or treatment if told by an adult.

Families should have an opportunity to revise how to use the glucagon injection kit annually or access video resources. Expiration dates of stored glucagon should be checked regularly; expired glucagon may not work effectively in an emergency. Some childcare facilities may store glucagon.

Emotional Wellbeing

Caring for a young child with diabetes can bring significant challenges for adults. Lack of sleep can also affect parent's ability to care for someone with diabetes. Parents may change their working patterns to accommodate this additional responsibility. Clinical psychology support is available for parents, recognizing the challenges that they face and the importance of their wellbeing as well as that of their child. Find local support groups or other families who may have had similar lived experience, who understand their circumstances and may be able to offer practical help and support.

- Children may start to realise that they are different from their siblings or friends.
- Siblings may feel jealous of the necessary increased attention given to the child with diabetes.
- Avoid speaking negatively about diabetes in front of children.
- Access films or books to help children understand their diabetes.
- Clinical psychologists, play specialists or nurses may be able to help with distraction techniques for distressing procedures.

Children should:

- Be able to talk about their feelings towards diabetes.
- Have their feelings acknowledged if they are sad, cross, frustrated or worried about diabetes.
- Have the opportunity to meet other children with diabetes, or access video resources showing other children with T1 diabetes.

www.digibete.org