

What is Diabetes?

- Diabetes is a serious chronic health condition which occurs when there is too much glucose in the blood.
- When we eat foods that contain carbohydrates, our body breaks it down into glucose. Glucose, is the body's energy source. The amount of glucose in a person's bloodstream is referred to as blood glucose level (BGL).
- An increase in BGL stimulates the release of a hormone called insulin from the pancreas. Insulin acts like a key to 'unlock' the 'doors' of the body's cells, allowing glucose into those cells so that it can be used for energy.
- When a person has diabetes, their pancreas either cannot make/produce enough insulin or does not work properly, or both. As a result, the person experiences high BGLs (hyperglycaemia) or low BGLs (hypoglycaemia) which are glucose levels outside the targeted range.
- If not managed, BGLs outside of the targeted range can be harmful to the body and can lead to long term health complications.

Managing Diabetes

- Managing diabetes requires regular monitoring of a child's Blood Glucose Level to check it is within a target range. BGLs rise and fall during the day for many reasons, such as when, what and how much food a person eats, their level of exercise or physical activity, medication, stress, excitement, illness or pain. Balancing the factors that raise or lower a child's BGL is vital.
- Managing diabetes may include:
 - Eating at a particular time
 - Drinking more water
 - Going to the toilet more often
 - Monitoring and recording BGL
 - Administering Insulin
 - Monitoring and recording Ketones
 - Administering Glucagon (in the event of an emergency)
 - Providing privacy when any specialise health procedures are performed.
- Regular communication with a child's treating medical practitioner/Diabetes Educator is essential. Only contact and share information with treating medical practitioner/Diabetes Educator if parents/guardians have provided written authorisation via their child's Medical Condition Record.
- Establish a communication book for parents/guardians and educators to share incidental information between the home and centre which may influence BGL e.g. child's behaviour/activity levels, food intake. Keep at the centre in the same known location.

Please note: Trained teacher/educator Volunteers are unable to implement parents/guardians instructions that are inconsistent with a child's Diabetes Management Plan and Dosage Card/Pump Reading Instructions. Educators must follow instructions outlined in a child's Diabetes Management Plan and (if applicable) Insulin Dosage Card/Pump Reading Instructions which have been prepared/authorised by a registered medical practitioner.

Specialised Health Procedure Volunteers and Training

As outlined in appendix 2 of the Medical Condition Procedure:

- At least 2 teachers/educators are required volunteer to managed the health needs of a child with Diabetes and to perform specialised health procedures relating to diabetes management i.e. blood glucose monitoring, administration of insulin, ketone monitoring, administration of Glucagon. Childcare and extended kindergarten programs will require more than 2 teacher/educator volunteers to ensure there is at least 1 trained teacher/educator volunteer rostered when the child is present at the centre.
- Training must be completed prior to child commencing or before an enrolled child (recently diagnosed) is able to return to the centre.
- Teacher/educator volunteers are required to complete:
 - 1. Theory**
 - Practical Diabetes for Childcare Workers
 - Online | Free | 2 hours
 - 2. Practical Training**
 - Facilitated by Credentialed Diabetes Educator (fee for service). In most instances a child's diabetes educator may be able to attend the centre to deliver this training.
 - Practical training includes practical implementation of the child's diabetes management plan and required specialised health procedure(s).
 - The Credentialed Diabetes Educator is required assess competency by observing educator/teacher volunteers demonstrating the specialised health procedure(s).

Documentation

- Queensland Diabetes Management Plan template prepared/authorised by a registered medical practitioner such as Credentialed Diabetes Educator must be provided to the centre.

- When applicable, an Insulin Dosage Card/Pump Reading Instructions (prepared/authorised by a registered medical practitioner) detailing the child's first and last name, medication name (insulin) and insulin dosage amount per BGL reading must be provided to the centre.
- As children attending an early childhood education programs are recently diagnosed, the Diabetes Management Plan and (if applicable) Insulin Dosage Card must be updated, prepared and authorised by registered medical practitioner at least every 3 months.
- When a child's Diabetes Management Plan and Insulin Dosage Card are incomplete, confusing or difficult to follow, contact your C&K Early Childhood Pedagogy Advisor for advice. It is responsibility of parents/guardians to supply documentation that is complete and easy to follow. If appropriate, parents/guardians can be asked to engage a [Credentialed Diabetes Educator](#) (fee for service) to amend documentation.
- When applicable, a [Diabetes Blood Glucose/Ketone and Medication Authorisation Record](#) is completed by parents/guardians and educators/teachers.

Equipment

- Whenever child with diabetes is in attendance, parents/guardians must supply the following items (when applicable) in a zipped bag that is clearly labelled with child's name:
 - Blood Glucose Meter and strips
 - Ketone strips (if separate device required)
 - Hypo Kit (including emergency foods)
 - Insulin Dosage Card/Pump Reading Instructions
 - Medication
 - Adequate protection for pump to allow active play
- If applicable, centre to purchase a sharps container. Dispose of and purchase as required.
- If applicable, maintain a labelled 'Sharps Disposal Kit' containing a sharps container, disposable gloves and information relating to [Safe Handling and Disposal of Needles and Syringes](#).
- If applicable, parents/guardians must ensure pump battery is charged to at least 20% at the beginning of the day. If a child's pump malfunctions, breaks or stops working, instruct parents/guardians to collect their child as soon as possible but no later than 90mins.

Blood Glucose Monitoring

- A child with Diabetes may require their BGL to be regularly checked and recorded. How and when BGLs are monitored must be detailed in the child's Diabetes Management Plan. BGL targets are individualised and must be detailed in the Diabetes Management Plan.
- BGL checks can be performed using a finger prick on a strip inserted into a Blood Glucose Meter and/or via a continuous Glucose Monitor.
- BGL monitoring:
 - Measure the effect of food, activity and insulin,
 - Detects hypoglycaemia and hyperglycaemia, and
 - Supports diabetes management when a child is unwell.
- Use personal protective equipment such as disposal gloves when completing BGL monitoring.
- Appropriately handle and dispose of sharps (via a sharps container) and other infectious waste.
- Promptly clean and disinfectant items contaminated by bodily fluids.
- Wash your hands and the child hands, before and after BGL checks.
- Document child's BGL via [Diabetes Blood Glucose/Ketone and Medication Authorisation Record](#) and share with parents/guardians daily.

Insulin administration and storage

- Insulin is the medication used to treat Type 1 Diabetes and is administered via a pen device, syringe (needle) or continuously through an insulin pump.
- Children with diabetes may or may not require insulin whilst attending the centre.
- C&K do not expect educators to administer Insulin via a needle/syringe. Whenever possible, C&K prefer Insulin to be administered at the centre via a pen device or pump.
- Insulin must be administered as per [Administration of Medication Procedure](#) and documented via the [Diabetes Blood Glucose/Ketone and Medication Authorisation Record](#).
- Store unopened insulin in the fridge, ideally between 2°C and 8°C in a locked container. Display 'medication is stored here' sign on fridge.
- Once opened, insulin can be stored at room temperature below 25°C, away from direct sunlight, in a location which is inaccessible to children. Once opened, insulin can remain below 25°C for up to 28 days. Location must display 'medication is stored here' sign.

Hypoglycaemia (low blood glucose/'Hypo')

- Hypoglycaemia (or 'hypo') occurs when BGL falls below 4 mmol/L. BGL levels below 4 mmol/L require immediate treatment.
- If child arrives at the centre with a **BGL below 4 mmol/L**, parent/guardian must remain at the centre until child's BGL returns to target level as indicated in child's Diabetes Management Plan.
- If left untreated, Hypoglycaemia can be life threatening. Immediate treatment is crucial and must not be delayed.
- Individual signs/symptoms can progress quickly from mild to severe and may include paleness, hunger, sweating, weakness, lack of concentration, confusion and irritability.
- Hypoglycaemia can occur at any time but is more likely to occur if a meal is delayed or missed, not eating enough carbohydrate, during/after physical activity or the child has had too much insulin.
- A child's Diabetes Management Plan must detail a 'Hypo Kit', which may include Blood Glucose Meter and strips, and emergency foods or fast acting carbohydrates e.g. glucose jellybeans, fruit juice, sugar sachets or glucose tablets/gel equivalent and biscuits.

GlucaGen/Glucagon Injections

- GlucaGen/Glucagon injections may be included in a child's Diabetes Management Plan to respond to Hypoglycaemia.
- C&K do not expect teachers/educators to volunteer to administer GlucaGen/Glucagon. C&K prefer if GlucaGen/Glucagon is administered by parents/guardians or ambulance paramedics. GlucaGen/Glucagon may be administered by educators:
 - If they volunteered to administer GlucaGen/Glucagon and have completed appropriate training.
 - If centre is located in an area where an ambulance response may be more than 30 mins (generally rural/remote locations).
 - Only when directed by the triple 0 operator to administer.

Treating Hypoglycaemia

- Follow child's Diabetes Management Plan.
- Immediately notify parent/guardian by telephone.
- If BGL return to 'target levels' and the child appears to be well, child can remain at the centre.
- If BGL do not return to 'target levels' and/or the child does not appear to be well, continue to follow Diabetes Management Plan and ask parent/guardian to collect their child.
- If GlucaGen/Glucagon is included in a child's Diabetes Management Plan:
 - Phone triple 0 for an ambulance and follow operator instructions.
 - When there are no trained volunteer educators to administer GlucaGen/Glucagon, an ambulance paramedic may administer GlucaGen/Glucagon upon arrival.
 - If there is a trained volunteer educator, administer GlucaGen/Glucagon only when directed by the triple 0 operator.
- When practical (within 24hrs), document all incident details and actions via a [Child Incident Record](#) and implement [Child Incident Reporting Procedure](#).

Hyperglycaemia (high blood glucose)

- Hyperglycaemia occurs when BGLs are too high; typically above 15mmol/L. A child's Diabetes Management Plan will indicate a child's Hyperglycaemia level and what actions to take.
- Symptoms may include excessive thirst, frequent urination, lethargy, mood change, lack of concentration, blurry vision and headaches.
- If child arrives at the centre with **high blood glucose levels** as indicated in child's Diabetes Management Plan, parent/guardian must remain at the centre until child's BGL returns to target level as indicated in child's Diabetes Management Plan.

Treating Hypoglycaemia

- Follow child's Diabetes Management Plan.
- If BGL return to 'target levels' and the child appears to be well, they can remain at the centre.
- If BGL do not return to 'target levels' and/or the child does not appear to be well, continue to follow Diabetes Management Plan and ask parent/guardian to collect their child.
- When practical (within 24hrs), document all incident details and actions via [Child Incident Record](#).

Ketoacidosis

- Hyperglycaemia may result in a build-up of chemicals called Ketones which can lead to a life-threatening condition called Ketoacidosis. Ketoacidosis is a diabetes medical emergency. Signs/symptoms may include rapid, laboured breathing, sweet-smelling breath, abdominal pain, vomiting and diarrhoea.
- Ketone monitoring (via Ketone Meter) identifies high levels of Ketones in the bloodstream.
- Due to the level of clinical assessments required, educators are not expected to assess or interpret Ketone monitoring results. Educators may perform ketone check if they volunteer and have completed appropriate training.

Treating Ketoacidosis

- Follow child's Diabetes Management Plan.
- Immediately notify parent/guardian (or emergency contacts) by telephone and direct them to collect their child.
- If parents/guardians (or emergency contacts) cannot be contacted, immediately phone Triple 0, advise the operator that there is a 'Diabetic Medical Emergency' and follow operator instructions.
- When practical (within 24hrs), document all incident details and actions via [Child, Centre Incident Record](#) and implement [Child, Centre Incident Reporting Procedure](#).

Implement the following risk minimisation strategies

- Consistently implement all tasks and responsibilities detailed in this Guideline.
- Ensure meals and snacks are provided on time and with enough time to consume food. Include additional meals if engaging in vigorous physical activity.
- Provide additional supervision and support when BGLs are low, when administering insulin or child appears unwell.
- Inform child's parent/guardian ahead of time of cooking experiences.
- Parents/guardians will provide adequate protection for the pump to allow the child's engagement in risky play.

In collaboration with parents (where possible) include/adapt these risk minimisation strategies in responsive to the child's health needs. Document in the Risk Minimisation Plan, as part of the child's Medical Condition Record.

References

- Diabetes QLD (2020) [Students with diabetes - Guidelines for Queensland schools](#)
- Education QLD (2018) [Safe handling and disposal of needles and syringes](#)
- [Type 1 Diabetes NDSS](#)
- [Hypoglycaemia NDSS](#)
- [Ketoacidosis NDSS](#)
- [Insulin Fact Sheet NDSS](#)
- [Blood Glucose Monitoring NDSS](#)