



3.9 Diabetes

Purpose

This policy has been designed to:

- Provide the necessary strategies to ensure the health and safety of all persons with Type 1 and Type 2 diabetes involved with John Street, including monitoring blood glucose levels and responding to hypoglycaemia and hyperglycaemia.
- Raise the community's awareness of diabetes and its management/prevention through education and policy implementation.

Objective

To ensure that John Street will develop and implement a clear set of procedures and expectations to be followed with regard to the management of diabetes.

Definitions

Type 1 diabetes – is an auto-immune condition which occurs when the immune system damages the insulin producing cells in the pancreas.

Type 2 diabetes – occurs when either insulin is not working effectively (insulin resistance) or the pancreas does not produce sufficient insulin (or a combination of both).

Diabetes Emergency Action Plan - a medical management plan prepared and signed by a Doctor providing the child's name, a photograph of the child and clear instructions on preventing and treating various diabetes-related episodes and potential emergencies.

Nominated Educator - An Educator nominated to be the liaison between parents/guardians of a child with diabetes and the John Street Board. This person also checks the hypo kit is current, the adrenalin auto-injector kit is complete, and leads Educator practice sessions after all Educators have undertaken anaphylaxis management training.

Health Support Plan - A plan specific to John Street that specifies each child's health support needs, the ways that each child with diabetes could become hypoglycaemic while in the care of John Street, practical strategies to maintain blood glucose levels, and who is responsible for implementing the strategies. The Health Support Plan should be developed by families of children with diabetes and Educators at John Street and should be reviewed at least annually, but always upon the enrolment or diagnosis of each child who is diabetic.

Trained Educator – for the purposes of this policy, this refers to those Educators who have received relevant professionally run training in the treatments or techniques required to support the health needs of a child with diabetes, and hold first aid training, anaphylaxis management training, and emergency asthma management training qualifications approved by ACECQA, as prescribed in the *Education and Care Services National Law Act 2010* in accordance with regulation 137 (1) (e).

Hyperglycaemia – A high blood glucose level is when there is too much glucose in the blood stream for normal functioning. A high blood glucose level is when there is too much glucose in the blood stream. The number is usually above 15.0mmol/L. High blood glucose levels can be caused by not enough insulin, too much food, common illness (e.g. a cold) and stress.

Hypoglycaemia - A low blood glucose level is when there is not enough glucose in the blood stream for normal functioning. The number is usually below 4.0mmol/L. Low blood glucose levels can be caused by too much insulin, exercise, or not eating enough exchanges (carbohydrates). Untreated, hypoglycaemia can lead to loss of consciousness and death.

Hypo Kit – The preferred ‘kit’ for individual children, provided by the child’s family, for use in the event of hypoglycaemia, or ‘hypo’.

Policy Statement

John Street recognises the need to educate its Educators, families and the community about diabetes and to promote responsible diabetes management strategies.

Children with diabetes are no more likely to be sick than other young people and can generally be expected to do everything their peers do. Because of their diabetes, they may, however, need:

- special consideration when planning sport, excursions and other activities;
- extra toilet provisions;
- extra consideration if unwell;
- some individual supervision;
- to eat at additional times, especially when involved in physical activity; and
- special provisions if testing for blood glucose levels and injecting insulin.

Procedures

- The Director will discuss with Educators their knowledge and experience of diabetes in young children, and arrange for information sessions to be held at the centre as required.
- The Director will discuss this policy and its implementation with parents/guardians of children with diabetes in preparation for their enrolment, ensuring parents/guardians’ satisfaction with both the policy, and its implementation in relation to their child.
- The Director will review the adequacy of the response of John Street if a child displays hypoglycaemia or hyperglycaemia, and will consider the need for additional training and other corrective action.

John Street will implement the following procedures to care for a child with diabetic health needs:

- Whenever a child with diabetes is enrolled at John Street, or newly diagnosed as having diabetes, a Health Support Plan will be developed to document special needs and considerations including:
 - creating a safe environment for the child;
 - assistance with recognition of signs and symptoms and appropriate treatment of hypoglycaemia (low blood glucose level) and hyperglycaemia (high blood glucose level);
 - adequate supervision of and ability to perform blood glucose testing if required;
 - taking of medication and/or insulin injections if required;
 - advocating and positively supporting healthy dietary behaviour; and
 - encouraging physical activity and special precautions for exercise.
- A communications plan will be developed to inform all relevant Educators, including students and volunteers of:
 - the child's name and room they are educated and cared for in;
 - the child's risk minimisation plan;
 - where the child's Emergency Action Plan/Health Support Plan will be located;
 - where the child's insulin/blood monitoring kit/snack box etc. will be stored; and
 - which Educators will be responsible for administering treatment.
- Young children with diabetes at John Street may need an Educator to test their blood sugar.
- Educators will be trained in awareness of the signs and symptoms of low blood sugar including, but not limited to: the child presenting pale, hungry, sweating, weak, confused and/or aggressive. Signs and symptoms of high blood sugar include thirsty, need to urinate, hot dry skin, smell of acetone on breath.
- Exercise can result in hypoglycaemia, so extra carbohydrates may be required before, during or after physical activity, depending on the duration and intensity of the activity. Parents will supply the extra carbohydrates and Educators will ensure that this is readily accessible from the place physical activity is occurring.
- Management of diabetes in children at John Street will be supported by the child having in place a Diabetes Emergency Action Plan which includes:
 - **Administration of insulin, if needed** - Information on how to give insulin to the child, how much insulin to give, and how to store the insulin. Insulin may be delivered as a shot, an insulin pen, or via an insulin pump.

- **Oral medicine** – Children may be prescribed with oral medication by their doctor, and Educators may be required to administer in line with medical advice.
- **Meals and snacks** – Including permission to eat a snack anytime the child needs it. Families are asked to provide John Street with snacks to give their child when he or she has signs of low blood sugar. This also includes a list of foods the child can eat, how much, and when, and a list of foods that the child can have during special occasions, such as birthday parties, excursions and special events.
- **Blood sugar testing** – Information on how often and when a child's blood sugar may need to be tested by Educators. For example, the child may need his or her blood sugar tested before lunch, when he or she has symptoms of low blood sugar, after strenuous activity, if the child isn't eating or at any other time an Educator has concerns.
- **Symptoms of low or high blood sugar** – One child's symptoms of low or high blood sugar may be different from another. Regular blood glucose monitoring is therefore essential. The child's Diabetes Emergency Action Plan should detail the child's symptoms of low or high blood sugar and how to treat it. For high blood sugar, low blood sugar, and/or hypoglycaemia, Educators will follow the child's Diabetes Emergency Action Plan.

Families of a child with diabetes at John Street are required to:

- Inform Educators, either on enrolment or on diagnosis, of their child's diabetes;
- Provide Educators with a Diabetes Emergency Action Plan and written consent to administer treatment strategies identified in the action plan;
- Provide Educators with a complete 'hypo kit';
- Regularly check the content and expiry date of the hypo kit and any medication;
- Assist Educators by offering information and answering any questions regarding their child's diabetes, including history;
- Notify the Director and Educators of any changes to their child's status and provide a new Diabetes Emergency Action Plan in accordance with these changes;
- Communicate all relevant information and concerns to Educators, for example, any matter relating to the health of the child.

Families are also required to advise John Street of their child's **food plan** for diabetes which may include the following:

- **Type of food** - Food containing slowly absorbed carbohydrates that must be eaten at each meal.
- **Timing of meals** - Most food plans are based on three major meals (breakfast, lunch and evening meal) and three snacks (morning, afternoon tea and at bedtime). If the interval

between meals and snacks is too long, a low blood glucose level can occur and an additional snack may have to be eaten.

- **Quantities of food** - the amount of food for each meal is also important and meals should never be skipped. Intake of carbohydrate foods needs to be balanced with insulin dosages. If usual carbohydrates are not eaten, the risk of a hypo increases. Similarly, if an unusual amount of fast-acting carbohydrates are eaten, hyperglycaemia may occur.
- Very young children may require extra supervision at meal and snack times. Most children will have a food plan that fits in with regular child care routines, avoiding the need to eat at odd times. Young people with diabetes usually cannot delay meal times.
- The foods routinely recommended for diabetes are based on the same healthy eating principles recommended for all people. As per the Diabetes Emergency Action Plan, families are responsible for providing snacks that are to be given to their child in the instance of low blood sugar. Low joule or diet products can be used freely by a person with diabetes.

Monitoring signs and symptoms

Signs are observable indicators whereas symptoms are what the person can feel and report.

Monitoring a young person with diabetes for signs and symptoms of high or low blood glucose levels is very important if he or she is unable to test the blood glucose level using a blood glucose meter.

- Educators will be trained in what signs to look for and when to take action.
- The family and the Educators will have a system in place so that the symptoms are reported and any action taken is communicated.
- Families will use the record of signs, symptoms and action to make changes to the management of their child's diabetes.

Blood glucose testing

Blood glucose testing is used to monitor whether the insulin doses being taken are the right amounts. Regular blood glucose testing is essential for children on insulin injections. It also enables safe management of sick days and exercise. Some young people will know how to prick their finger and measure the blood glucose using their own blood glucose meter, however this is not typical for children under school-age.

- Educators will be responsible for undertaking blood glucose tests in accordance with a child's diabetes management plan. Families are responsible for ensuring educators are trained in blood glucose testing and feel confident in testing their child.
- Educators will be trained on how to supervise this to support this aspect of the child's self-management if applicable.

Special precautions for exercise

The Director, and/or Educators at John Street will need to discuss a plan with families regarding the implications for management of the diabetes during physical activity. There are many ways in which this could be done.

- The agreed strategies should be written in the individual diabetes care plan and health support plan and monitored through the communication book.

- The support plan should determine how Educators will ensure that food and drinks for the treatment of low blood glucose levels (hypoglycaemia or 'hypo') are available at the place of physical activity and sport.
- Educators will need to have access to (or be carrying) the hypo kit.

Young people with diabetes need additional supervision during exercise. The younger child may also need to have meals supervised, especially before exercise.

- Any sport in which a low blood glucose level would cause a risk to the child or student should be carefully planned and always occur under strict supervision.
- Water sports need very careful planning and supervision because a low blood glucose may increase the risk of drowning.
- Some features of a low blood glucose level may be masked by cooler body temperatures experienced during water based activity.
- For excursions in and/or around water the Educator will be located on the edge of the water-based activity as a safety watch for the child.

Storage of equipment

- Blood glucose monitoring equipment should be safely stored so that it is accessible as required by the Educator, but is not accessible to children. Typically this equipment is stored with the child's hypo kit.
- Hypo kits will be stored in the room with the child.

Hypoglycaemia – Low Blood Glucose Levels

Hypoglycaemia may occur at any time, but there is a greater chance of this happening with exercise, before the next meal is due (usually morning tea or lunch) or if food intake is low. Hypoglycaemia may be dangerous. The signs can progress from mild to severe very quickly—prompt first aid treatment is crucial.

Signs of Hypoglycaemia:

Mild	Moderate	Severe
<ul style="list-style-type: none"> – Sweating, paleness, trembling, hunger, weakness – Changes in mood and behaviour (e.g. crying, argumentative outbursts, aggressiveness) – Inability to think clearly, lack of coordination 	<ul style="list-style-type: none"> – Inability to help oneself – Glazed expression – Being disorientated, unaware or seemingly intoxicated – Inability to drink and swallow without much encouragement – Headache, abdominal pain or nausea 	<ul style="list-style-type: none"> – Inability to stand – Inability to respond to instructions – Extreme disorientation – Inability to drink and swallow (leading to danger of inhaling food into the lungs) – Unconsciousness or seizures (jerking or twitching of face, body or limbs)

First Aid for Hypoglycaemia

Mild to moderate hypos can be treated by giving foods or drinks by mouth. Families will provide John Street with their child’s preferred hypo kit.

The essentials in the treatment of **mild to moderate** hypos are the following:

Step 1	Test blood glucose levels. If glucose levels are below 4 mmol/L, go to Step 2
Step 2	Give glucose immediately to raise the blood glucose level (e.g. half a can of normal [with sugar] soft or fruit drink, gluco-gel, or 5-6 jelly beans if the child is over 3 years of age
Step 3	Wait 15 minutes
Step 4	If blood glucose levels remain below 4 mmol/L, repeat Step 2 until glucose levels are 4mmol/L or above.
Step 5	If blood glucose levels are 4mmol/L or higher, follow up with a snack of one piece of fruit or one slice of bread or dried biscuits or cup of milk
Step 6	If there is still no improvement, call an ambulance. State clearly that the person has diabetes, and whether he or she is conscious. Inform emergency contacts
Step 7	If unconscious, maintain airway, breathing and circulation (the ‘ABC’ of first aid) while awaiting the ambulance

Severe hypos require either an injection of glucose into the vein (this can only be given by a doctor or a trained paramedic) or the intramuscular injection from the *Glucagen Hypo Kit*® (this can only be given by a doctor, a paramedic, or a parent or guardian).

Never put food or drink in the mouth of a person who is unconscious, convulsing or unable to swallow, in case it is inhaled.

In severe hypoglycaemia:

Step 1	Lie the child on one side and protect from injury
Step 2	Provide first aid, checking that there is no danger around, and maintain airway, breathing and circulation (the ‘ABC’ of first aid). Check that the mouth is clear to allow unobstructed breathing. Skin colour should remain pale to normal if the person is breathing properly.
Step 3	Call an ambulance and inform the operator that there is a diabetic emergency
Step 4	Inform emergency contacts as per policy

Hyperglycaemia – High Blood Glucose Levels

Hyperglycaemia (high blood glucose levels) can be caused by not enough insulin, too much food, common illness (e.g. a cold) and stress. When blood glucose levels are high for a long period of time, the body starts to break down fat and muscle for energy. When this happens, the body makes ketones. A blood or urine test can detect ketones. Usually a child’s blood glucose monitor can also test for ketones (using different coloured strips).

Signs for this condition may develop over several days and can include:

Mild	Moderate	Severe
<p><i>Educators often become aware of this when the child constantly asks for permission to go to the toilet and to obtain a drink.</i></p> <p><i>As signs develop over time, mild hyperglycaemia isn't always visible to Educators at John Street. Communication with families about children's wellbeing assists in identifying changes to children's health.</i></p>	<p>Frequent urination</p> <p>Excessive thirst</p> <p>Change in behaviour (usually irritability)</p> <p>Lethargy</p> <p>Weight loss</p> <p>Lack of concentration</p>	<p>Rapid laboured breathing</p> <p>Vomiting</p> <p>Sweet acetone smell to breath</p> <p>Abdominal pains</p> <p>Flushed cheeks</p> <p>Severe dehydration</p>

First Aid for Hyperglycaemia

Test blood glucose levels. If blood glucose levels are above 15, test for ketones. If ketones are less than 1, continue usual diabetes care. If ketones are 1 or higher, the parents or guardians should be called or – if not contactable - an ambulance should be called immediately .

In severe hyperglycaemia:

Step 1	Lie the child on one side and protect from injury
Step 2	Provide first aid, checking that there is no danger around, and maintain airway, breathing and circulation (the 'ABC' of first aid). Check that the mouth is clear to allow unobstructed breathing. Skin colour should remain pale to normal if the person is breathing properly.
Step 3	Call an ambulance and inform the operator that there is a diabetic emergency
Step 4	Inform emergency contacts as per policy

Responsibility

Active implementation of this policy is a shared community responsibility.

The Director will:

- discuss with Educators their knowledge of issues following Educators participation in any diabetes information sessions and/or training.
- Selectively audit enrolment checklists (e.g. annually) to ensure that documentation is current and complete.
- Discuss this policy and its implementation with parents/guardians of children with diabetes to gauge their satisfaction with both the policy and its implementation in relation to their child.
- Respond to complaints.

The Nominated Educator (as nominated by the Director) will:

- Determine the levels of Educator competence and confidence in managing diabetes, including responding to hypoglycaemia.

- Routinely review the children medication and hypo kits to ensure that it is complete and that nothing has expired.
- Liaise with the Board (through the Director) and parents of children with diabetes.

Parents/guardians shall:

- Read and be familiar with the Diabetes policy.
- Identify and liaise with the nominated Educator.
- Bring relevant issues to the attention of both Educators and the Director.
- Maintain a food plan and hypo kit for John Street which includes extra carbohydrates.

General Information

Type 1 Diabetes

Type 1 diabetes occurs due to a severe deficiency of insulin. Insulin is the hormone which controls blood glucose levels or BGLs. Type 1 diabetes is an auto-immune disease in which the body's own immune system attacks the insulin-making cells in the pancreas and destroys them over time. There is no risk of contracting diabetes from affected individuals.

Signs and symptoms of diabetes occur over a period of days and weeks. They include lethargy, weight loss, increased urination and excessive thirst. Without insulin the disease progresses to a life threatening condition marked by dehydration, high blood glucose levels and a build-up of acids (ketones) in the blood (ketoacidosis).

Treatment for Type 1 diabetes involves insulin injections, blood glucose monitoring and food management.

Type 2 diabetes

Type 2 diabetes usually does not usually emerge until adulthood and is associated with the following risk factors: being overweight, inactivity and a genetic predisposition. However, Type 2 diabetes affects some children, in particular children with identified risk factors which are compounded by disadvantaged socioeconomic conditions and/or other medical conditions.

Type 2 diabetes is different from Type 1 diabetes. People with Type 2 diabetes are able to make insulin but when it is released into the blood stream it is unable to work efficiently (insulin resistance). This leads to high blood glucose levels (hyperglycaemia)

Contact details for resources and support

Diabetes Victoria www.diabetesvic.org.au provides information on diabetes, and provides resources for children's services and families, management plan samples, professional learning tools, workshops, webinars, and publications.

Scope of Policy

This policy applies when a child diagnosed with diabetes by a qualified medical practitioner is enrolled at John Street. It applies to the child/children enrolled, their parents/guardians, Educators, and the

Board. It also applies to other relevant members of the community, such as student, volunteers and visiting specialists.

Legislative Provisions

Education and Care Services National Law Act 2010 – 167 (1) (2) and (3), 175 (1)

Education and Care services National Regulations 2011:

R. 90	<i>Medical Conditions Policy</i>
R. 91	<i>Medical Conditions Policy to be provided to parents</i>
R. 92	<i>Medication Record</i>
R. 93	<i>Administration of Medication</i>
R.94	<i>Exception to authorisation requirement—anaphylaxis or asthma emergency</i>
R. 95	<i>Procedure for administration of medication</i>
R.168	<i>Education and Care Services Must have policies and procedures: (2) (d) – policies and procedures are required in relation to dealing with medical conditions in children, including matters set out in regulation 90</i>
R.177	<i>Prescribed enrolment and other documents to be kept by approved provider: (c) – a medication record as set out in regulation 90</i>
R.181	<i>Confidentiality of records kept by approved provider</i>
R.183	<i>Storage of records and other documents</i>
R.184	<i>Storage of records after service approval transferred</i>

National Quality Standard for Early Childhood Education and Care & School Age Care

Standard 2.1	<i>Each child’s health and physical activity is supported and promoted.</i>
Element 2.1.2	Effective illness and injury management and hygiene practices are promoted and implemented.
Element 2.1.3	Healthy eating and physical activity are promoted and appropriate for each child.
Element 2.2.2	Plans to effectively manage incidents and emergencies are developed in consultation with relevant authorities, practised and implemented.
Standard 4.1	Staffing arrangements enhance children's learning and development.
Element 7.1.2	Systems are in place to manage risk and enable the effective management and operation of a quality service.

Background Legislation

Information Privacy Act 2000 (Vic)	<i>Management of personal information</i>
Privacy Act 1988 (Cth.)	<i>Information Privacy</i>
Health Act 1958	<i>Public Health & Wellbeing Guidelines</i>
Health Records Act 2001	<i>Use of Health Records</i>
Occupational Health & Safety Act 2004	<i>Providing a safe environment</i>

Sources

Diabetes Australia (Victoria) <https://www.diabetesvic.org.au/Home>

Royal Children's Hospital, [Caring for Diabetes in Children & Adolescents](https://www.rch.org.au/uploadedFiles/Main/Content/diabetes/diabetes-manual.pdf), – retrieved Feb 2019
<https://www.rch.org.au/uploadedFiles/Main/Content/diabetes/diabetes-manual.pdf>

Related John Street Policies, Procedures and Guidelines

Policies	<i>Enrolment, Orientation & Custody Arrangements; Illness & Infection; Nutrition, Food & Beverages, Dietary Requirements & Food Allergies; Occupational Health & Safety; Providing a Child Safe Environment; Birthday Parties; Excursions & Routine Outings; Ongoing Professional Development; Recruitment & Retention of Educators; Supervision of Children; Immunisation; Equity, Diversity & the Children's Program;</i>
Appendices	<i>Enrolment Checklist for Diabetes; Authority to Administer Medication; Special Health Needs Support Plan;</i>

Authorisation

This policy was approved by the John Street Board in March 2019.