Toronto District School Board

Operational Procedure PR607

Title: **DIABETES MANAGEMENT**

Adopted: April 27, 2010
Effected: April 27, 2010
Revised: **April 16, 2019**
Reviewed: **April 16, 2019**
Authorization: Director's Council

1.0 RATIONALE

The Diabetes Management Operational Procedure (The Procedure") supports the implementation of the Student Health Support Policy (P092) and the management of Diabetes in schools.

2.0 OBJECTIVE

To provide procedures for the management of diabetes in schools.

3.0 DEFINITIONS

Diabetes refers to a chronic disease, in which the body either cannot produce insulin or cannot properly use the insulin it produces. Without insulin, glucose builds up in the blood stream and the body begins to break down fat to be used for energy. The body creates ketones and an excess of this material can result in severe complications that can result in coma and/or death. There are three types of diabetes which require significantly different management, they include, Type 1 Diabetes; Type 2 Diabetes; and Gestational Diabetes. Type 1 Diabetes (insulin dependent) can occur at any age and cannot be prevented or cured. Students with Type 1 Diabetes must inject insulin several times every day. Type 2 Diabetes (non-insulin dependent) typically develops in late adolescent and adulthood, but can appear earlier. Individuals who are obese are at the greatest risk of developing Type 2 Diabetes. Management includes lifestyle modification emphasizing healthy eating, increased physical activity and decrease in sedentary activity. Students with Type 2 Diabetes may need to self-monitor their blood glucose and in some cases take oral medication or inject insulin. Gestational Diabetes develops in 2-5 per cent of pregnant women. This type of diabetes usually disappears after childbirth, but can result in a higher risk of future development of Type 2 Diabetes for the mother.

Prevalent Medical Conditions are conditions that have the potential to result in a medical incident or a life-threatening medical emergency, which include, but are not limited to, anaphylaxis, asthma, diabetes, epilepsy, and sickle cell disorder.

For additional definitions see (Appendix A - What is Diabetes?) and (Appendix C - Glossary of Terms).

4.0 RESPONSIBILITY

Within the Director's Office, the responsibility for the implementation, coordination, and day-to-day management of the Procedure is assigned to the Associate Director, Equity, Well-Being, and School Improvement.

5.0 APPLICATION AND SCOPE

This procedure applies to all school staff and others that have contact with students on a regular basis.

6.0 PROCEDURES

6.1. Creating a Positive Environment for Students with Diabetes

School personnel can support students with diabetes by learning about the disease and by having frequent, open communication with parents and students. This will help to reduce apprehension and anxiety in students, parent/guardian/caregiver, and school personnel. Open communication will support a positive attitude toward students' full participation and ensure that students participate in all school activities including excursions and sports activities.

When the blood glucose is in proper balance, children or adolescents will behave and achieve as others. In terms of academic performance, physical activity, behaviour and attendance at school, the teacher's expectations of students should be the same as if they did not have diabetes.

6.2. Special Considerations for Students with Additional Needs

In the event that students are not able to be independent in their care (e.g. a student may be too young, physically and/or developmentally challenged or in a diabetic emergency situation) adult intervention will be required on their behalf to support their safety and management of their diabetes.

If students are not taking responsibility for their diabetes care it may be due to other factors including: language, cognitive ability, physical ability, maturity level, behavioural issues and psychosocial barriers. This requires communication between parent/guardian/caregiver, teachers and other professional support as appropriate and may require more direct intervention and support to ensure their safety.

Research indicates that with increasing age comes decreasing compliance and worsening of blood sugar control. This can be understood within the context of normal adolescent development and the desire to be independent. Adolescent students may require ongoing guidance and support to ensure safe management of their diabetes. Young students may be at risk of non-compliance, but current statistics indicate that more deaths occur among teenagers and young adults. A process must be developed that takes into consideration the age, maturity and responsibility level of students with diabetes.

6.3. Effective Practices in Schools

(a) Blood Glucose Monitoring/Insulin Injection

Students need a safe, hygienic, private space or space where they are comfortable in the school to perform self-blood glucose monitoring and insulin injections throughout the school day. In some instances, they may require support or supervision of these activities.

Some students may not be able to perform self-blood glucose monitoring and or insulin administration throughout the school day. As necessary, school staff will seek support from the parent/guardian/ caregiver and/or the Community Care Access Centre. This will be discussed as part of the Diabetes Management Plan and arrangements made where students are not able to self-care.

(b) Management of Diet Requirements

Proper timing of meals and snacks is important for a student with diabetes to maintain proper blood sugar levels. Students need the opportunity to eat all meals and snacks fully, where applicable, and on time. Students may require more time, flexibility and supervision as they eat lunch or snacks throughout the day. As well, some assistance may be required to keep an appropriate schedule. Students should have a safe place in the classroom to keep their required food and be encouraged to eat only what is sent from home.

In addition, emergency food supplies that include oral glucose, juice and/or fast acting sugar should be available in other locations in the school including the school office and gymnasium. The location of emergency supplies should be recorded on the Diabetes Management Plan. Staff should be aware of the location of emergency supplies. Where classmates are sufficiently mature to understand the importance of these emergency supplies, they too can be informed of the location.

Parent/guardian/caregiver is responsible for the provision of all food and emergency supplies for the children. Additional supplies should be

provided for special events such as excursions or days with high levels of physical activity.

(c) Emergency Procedures

A Diabetes Management Plan will be developed for each student who is identified with diabetes. The plan will be implemented in accordance with the medical requirements for each student.

Hypoglycaemia (low blood sugar) occurs when the amount of blood sugar is lower than an individual's target range. This can develop quickly and requires an immediate response. Staff should be alert for the following symptoms and contact parent/guardian/caregiver/ if they appear:

- cold, clammy or sweaty skin;
- paleness, quietness;
- shakiness or lack of coordination;
- fatigue, dizziness; and
- irritability, hostility and poor behaviour.

The symptoms of severe hypoglycaemia are confusion, slurred speech, staggered gait and eventual unresponsiveness. In the most severe cases students may become unconscious and/or experience a seizure requiring emergency response. Severe hypoglycaemia can be life threatening and will require a call to 911 for Emergency Medical Services and treatment with injectable glucagon.

Hyperglycaemia (high blood sugar) occurs when the amount of blood sugar is higher than an individual's target range for a prolonged period of time. An urgent response to severe high blood sugar levels is not necessary if there are no symptoms. However, parent/ guardian/caregiver should be notified the same day if school personnel note the following symptoms:

- frequent trips to the washroom to urinate;
- excessive thirst;
- blurred vision; and
- hunger.

An urgent response to severe hyperglycaemia symptoms may be necessary in the event that the student experiences some of the following symptoms:

- nausea;
- vomiting;
- extreme thirst;
- frequent/excessive urination; and

- general malaise.

This may result in DKA (Diabetic Ketoacidosis), which is a life threatening condition caused by a severe shortage of insulin and which can occur for a variety of reasons. The body becomes dangerously acidic and extremely dehydrated.

If any of these symptoms is present school staff must call 911 immediately. The parent/guardian/ caregiver should be alerted and if they cannot be reached, school staff should accompany the student to the hospital.

6.4. Roles and Responsibilities for Elementary and Secondary Schools

Nothing in this procedure is intended to alter the terms or effect of any TDSB collective agreement or the provision of any TDSB policy or procedure in respect to the administration of medication.

(a) School Principal

(i) *Operational Duties*

(A) Reviews Operational Procedure PR607, Diabetes Management, with entire staff each year in September and throughout the school year when required.

(B) Notifies cafeteria staff, lunchroom supervisors, other school-based staff and volunteers of the individual student's Diabetes Management Plan.

(C) Advises occasional teachers to review the individual Diabetes Management Plans for students in their assigned classroom.

(D) Ensures that the parent/guardian/caregiver is called and emergency action is taken as required when the student has not responded to the actions outlined in the Diabetes Management Plan. Where necessary arranges for transport of students to a hospital or emergency medical facility. Designates a staff person to accompany the student to the hospital.

(E) Provides a discreet location where the student may self-monitor and/or self-administer medication.

(F) Provides a secure location(s) for the student's emergency supplies in the school office and classroom, as necessary.

(G) Informs School Council on the Diabetes Management Procedure (PR607) and provides information on diabetes identification and prevention.

(H) Provides appropriate supervision, including during self-monitoring and/or self-administration of medication, as appropriate.

(I) Communicates procedures for the safe disposal of sharps, lancets and testing strips. (TDSB Caretaking Handbook Section H-4)

(J) Communicates universal precautions for blood and bodily fluids.

(ii) *Consent and Parental Involvement*

(A) Ensures that upon registration, parent/guardian/caregiver and students are asked to supply information on diabetes and any other prevalent medical conditions.

(B) Obtains informed consent from parent/guardian/student prior to displaying and sharing emergency intervention practices information with staff and other approved individuals related to the student's prevalent medical condition. This information is to be posted in a non-public area of the school (e.g. staff room and/or school office in a sealed non-descriptive envelope, etc.) in accordance with applicable privacy legislation.

(C) Obtains consent to administer medication and complete Form 536A, Administration of Prescribed Medication and Form 536B, Management of Emergency Medical Concerns.

(D) Meets with parent/guardian/caregiver to complete the following:

- Form 536A, Administration of Prescribed Medication
- Form 536B, Management of Emergency Medical Concerns
- Form 536 C Student Medical Alert
- Form 607A, Diabetes Management Plan
- Form 607B, Hyperglycaemic Emergency Plan and/or Hypoglycaemic Emergency Plan
- Excursion Form 511E Medical Information
- Excursion Form 511K Physical Education Information

- Excursion Forms 511C, 511I, 511J, as appropriate.

(E) Convenes a case conference which may include parent/guardian/caregiver, the student if appropriate, school staff to gather medical information related to the condition including identification and management of an individual student's diabetes. In some instances, LHINCase Manager, Care Coordinator and/or Diabetic Care Educators may also be part of the case conference.

(F) Obtains consent from parent/guardian/caregiver and student with diabetes to share information with staff and other approved individuals.

(G) Works closely with the parent/guardian/caregiver and student with diabetes to provide ongoing support.

(H) Requests parent/guardian/caregiver provides all required supplies and food for their children.

(I) Ensures that LHIN is contacted for all students who are unable to manage their blood glucose (sugar) monitoring, insulin injections or pump independently as well as to request support for training and education of involved school personnel. Medication which safely can be administered by a layperson within the terms and conditions of collective agreements may be administered by staff.

(iii) *Documentation*

(A) Develops and maintains a file for each student including but not limited to:

- current management and treatment;
- a copy of instructions from the student's physician or nurse, if appropriate; and
- forms identified in 6.4(a)(ii)(B)

(B) Communicates information on diabetes to parent/guardian/caregiver, students, employees and volunteers and updates information as appropriate.

(C) Ensures that Form 536B, Management of Emergency Medical Concerns, is posted in a non-public area of (i.e. staff room and/or school office, classroom etc.) and the Teacher's Day Book. Ensures that Hypoglycaemic or

Hyperglycaemic Emergency Action Plans are readily available.

(D) Provides cafeteria staff with a copy of the Management of Emergency Medical Concerns (Form 536B) in the food preparation area where staff can review it discretely while respecting the privacy and confidentiality of the student.

(E) Provides the Board's Transportation department with a list of students with diabetes riding the school bus.

(iv) *Professional Learning*

(A) Distributes information on managing diabetes to school-based staff and others who are in direct contact with students on a regular basis.

(B) Provides information for school staff regarding how to respond to hypoglycaemic incidents and other emergency situations related to diabetes.

(C) Provides teachers with appropriate resources to use in their classrooms.

(D) Directs staff to on-line course on Key to Learn.

(b) <u>Teachers and Classroom Support Staff</u>

(i) *Preparation*

(A) Reviews and maintains Form 536B, Management of Emergency Medical Concerns and the Diabetes Management Plan in the Teacher's Day Book and posts them in a non-public area of the classroom according to the individual plan.

(B) Reviews Emergency Plan for individual students.

(C) Leaves information in an organized, prominent and accessible format for occasional teachers.

(D) Receives information on diabetes management and the causes, identification and prevention of diabetes.

(E) Participates in case conferences with parent/guardian/caregiver, principal and health professionals as required.

(F) Permits the student with diabetes to take action to prevent or treat low blood glucose (sugar). Allows flexibility in class routine and school rules as required.

(G) Informs parent/guardian/caregiver when the supply of fast acting sugar (oral glucose, juice etc.) is running low.

(H) Develops open lines of communication and encourages student(s) to indicate low blood sugar when he/she feels the first symptoms or has a general feeling of "unwellness".

(I) Notifies parent/guardian/caregiver of the child with diabetes of school trips, special events, and athletic activities. Takes steps necessary to support the safety of the student (e.g. emergency glucose on hand, watches for signs of hypoglycaemia/hyperglycaemia).

(J) Takes appropriate supplies and Pocket Emergency Card on all trips off the school property.

(K) Provides an accessible, secure and safe location for items for blood sugar monitoring and insulin injections.

(L) Follows the individual student Diabetes Management Plan during school-sanctioned excursions and provides it to other individuals as required.

(ii) *Classroom Support*

(A) Discusses diabetes with the class in age appropriate terms and informs classmates of the location of fast acting sugars.

(B) Encourages students with diabetes to eat only what they bring from home.

(C) Enforces school rules about bullying and threats related to diabetes.

(c) <u>Parent/guardian/caregiver of a Student with Diabetes</u>

(i) Upon Informs the school of the child's diabetes and completes forms identified in 6.4(a)(ii)(B).

(ii) Participates in a case conference with school principal, teacher, involved health professionals as required.

(iii) Informs school administration regarding changes in the child's health, lifestyle, diabetes procedures, management

and updates emergency contact numbers on an on-going basis.

(iv) Provides and maintains at the school a supply of fast-acting sugar (carbohydrates) e.g. oral glucose, juice.

(v) Provides a safe container for blood sugar monitoring items, insulin injection items and medication labelled with the child's name.

(vi) Provides and replenishes all necessary diabetic related supplies including:

- glucose monitor and strips;
- lancing devise and lancets;
- insulin, syringes/pen needles;
- sharps container or for insulin pump, extra infusion set, insulin cartridge, insulin, batteries as appropriate; and
- glucagon needle, Emergency Glucagon Kit.

(vii) Teaches Children

- to wear MedicAlert® identification;
- to understand the causes, identification, prevention and management of low/high blood sugar as appropriate to his/her age or cognitive ability;
- to recognize and act on the first symptoms of low blood sugar;
- to communicate clearly to adults/those in authority that he or she has diabetes and when feeling the onset of symptoms or a general feeling of "unwellness";
- to be responsible for all management apparatus, including proper disposal container;
- to report any possible bullying and threats to an adult in authority;
- to eat only foods approved by parents; and
- to participate at an age appropriate level in their Diabetes Management Plan.

(d) <u>Parent/guardian/caregiver of a Student with Diabetes</u>

With an understanding of diabetes as age appropriate and according to ability:

(i) Wears his/her MedicAlert® identification at all times during the school day.

(ii) Recognizes the symptoms of a low blood sugar reaction.

(iii) Manages symptoms.

(iv) Takes responsibility for following an established eating plan as outlined in the student management plan.

(v) Takes responsibility for bringing and looking after his/her blood glucose (sugar) monitoring and insulin injection apparatus, including proper disposal in an appropriate manner.

(vi) Participates in blood glucose checking, insulin administration and safe disposal of sharps.

(vii) Informs an adult promptly that he/she has diabetes as soon as symptoms of low blood sugar appear or when experiencing feelings of being unwell.

(viii) Self-monitors his/her blood glucose regularly with a glucose meter and keeps the results within a target range.

(e) Parent/guardian/caregiver of a Student with Diabetes

(i) Board Supports a safe and caring school environment for all members of the school community.

(ii) Participates in parent information sessions.

(iii) Encourages their children to respect students with diabetes and their management plans.

(f) Local Health Integrated Network (LHIN) supporting TDSB (Appendix C, Sec D)

(i) Receives applications from parent/guardian/caregiver for health support services beyond the capacity, resources and/or requirements of the schools and/or Board.

(ii) Supports students directly or informs, supports and consults with appropriate school staff.

7.0 EVALUATION

This operational procedure will be reviewed as required, but at a minimum every four (4) years after the effective date.

8.0 APPENDIX

Appendix A: What is Diabetes?
Appendix B: Glossary of Terms

Appendix C: Supplementary Information
Appendix D: Age-Appropriate Developmental Tasks for Children with Diabetes
Appendix E: Misunderstood Behaviours in the Classroom

9.0 REFERENCE DOCUMENTS

Policies:

- Student Health Support Policy (P092)

Procedures:

- Administration of Prescribed Medication (PR536A)
- Diabetes Management Plan (PR607A)
- Hyperglycaemic Emergency Action Plan (PR607B)
- Hypoglycaemic Emergency Action Plan (PR607C)
- Interschool Athletics Tryout and Participation (Elementary) (PR511I)
- Interschool Athletics Tryout and Participation (Secondary) (PR511J)
- Management of Emergency Medical Concerns (PR536B)
- Medical Information Form (PR511E)
- Parent/Guardian Permission for Excursion (PR511C)
- Physical Education Information and Intramural Information/Permission (PR511K)
- Student Medical Alert (PR536C)

What is Diabetes?

Diabetes (formerly known as Diabetes Mellitus) is a serious disease that impairs the body's ability to use food properly. In students with diabetes, insulin is either not produced or does not work efficiently. Without insulin, glucose builds up in the blood stream and the body begins to break down fat to be used for energy. The body creates ketones and an excess of this material can result in severe complications that can result in coma and/or death.

There are three types of diabetes which require significantly different management.

Type 1 Diabetes (insulin-dependent)

Type 1 Diabetes can occur at any age, but most commonly is diagnosed from infancy to the late 30's. One in every 300-400 children live with Type 1 Diabetes. Students with Type 1 Diabetes must inject insulin several times every day. Type 1 Diabetes cannot be prevented or cured.

Type 2 (non-insulin-dependent)

Type 2 Diabetes typically develops in adulthood, but can appear earlier. It has been appearing with more frequency in pubertal children and adolescents. Individuals who are obese are at greatest risk. Management includes lifestyle modification emphasizing healthy eating, increased physical activity and decrease in sedentary activity. Students with Type 2 Diabetes may need to self-monitor their blood glucose and in some cases take oral medication or injected insulin.

Gestational Diabetes

Gestational Diabetes develops in 2-5 per cent of pregnant women. This type of diabetes usually disappears after childbirth, but can result in a higher risk of future development of Type 2 Diabetes for the mother.

Glossary of Terms

Blood Glucose
This is the amount of sugar in the blood at a given time. Blood glucose levels fluctuate within a normal range but in students with diabetes that fluctuation can be exaggerated well beyond the normal range.

Blood Glucose Monitoring or Self-Monitoring
This is mandatory for achieving a target blood glucose level. Levels will change depending on food consumption, physical activity, stress, illness, problems with the insulin delivery system and many other unknown factors. To obtain a reading, a drop of blood is placed on a blood glucose strip which is inserted into a blood glucose meter.

Community Care Access Centre (CCAC)
The 14 CCAC's in communities across Ontario are funded by Local Health and Integration Networks through the Ministry of Health and Long-Term Care. They coordinate support for care for individuals. For students who require assistance to inject insulin or glucagon, an application may be made to CCAC for support.

Diabetes Care Kit (Low Kit)
This contains the required tools for the monitoring and treatment of symptoms for Hypoglycaemia (low blood sugar):

- blood monitor/strips/lancet;
- fast acting sugar (tablets or juice);
- Pocket Information Card; and
- glucagon.

Diabetic Ketoacidosis (DKA)
DKA is a life threatening condition caused by a severe shortage of insulin, but it is generally preventable. DKA results in a build up of sugar and ketones in the blood and leads to vomiting and severe dehydration. DKA happens over a period of hours not minutes and is always preceded by high blood sugar symptoms (e.g. excessive thirst and excessive urination).

Fast-acting Glucose
A carbohydrate to eat or drink that is absorbed quickly by the body to correct low blood sugar (e.g. juice, glucose tablets)

Glucose
This is a simple sugar produced when carbohydrates are consumed and /or released by the liver or the muscles in the body. It is the primary source of energy for the body.

Glucagon
This is a hormone that raises blood glucose. An injectable form of glucagon is used in an emergency situation to safely treat severe hypoglycaemia. Note that no harm can come from administering glucagon injections. (Refer to: Diabetes Educator 2008; 34; 128-Teresa Pearson *Glucagon as a Treatment of Severe Hypoglycaemia: Safe and Efficacious but Underutilized*. http://tde.sagepub.com/cgi/content/abstract/34/1/128)

Hypoglycaemia (low blood glucose)
This is an emergency situation and occurs when the amount of blood glucose has dropped below 4.0 mml. Symptoms of hypoglycaemia can be mild, moderate or severe and may include but are not limited to:

- cold, clammy or sweaty skin;
- paleness, quietness;
- shakiness or lack of coordination;
- fatigue, dizziness; and
- irritability, hostility and poor behaviour.

Severe hypoglycaemia (confusion, slurred speech, staggered gait and eventual unresponsiveness) can be life threatening and will require a call to 911 for Emergency Medical Services and treatment with injectable glucagon sharps.

Hyperglycaemia (high blood glucose)
This occurs when the amount of blood sugar is higher than an individual's target range. Parent/guardian/caregiver should be notified if school personnel note frequent trips to the bathroom to urinate and/or excessive thirst, and called immediately if the student has a stomach ache, nausea, and/or vomiting.

Insulin
This hormone is required to effectively convert glucose to energy for the body to use. With no insulin, glucose builds up in the blood instead of being used for energy. Therefore, students with Type 1 Diabetes must administer insulin by syringe, insulin pen or insulin pump. Students with Type 2 Diabetes whose bodies make insulin but are unable to use it effectively will require life style changes, oral medication and/or insulin.

Ketones
This acid is created when the body burns its own fat. Ketones are common in Type 1 Diabetics because the body cannot get enough glucose from the blood. The insulin cannot deliver energy to the body's cells, so the body has a survival mechanism that begins burning fat. In most Type 1 Diabetics there may not be a lot of fat to burn. Diabetics may want to know what their ketone level is as a means of managing their blood glucose levels more efficiently.

Target range
This is the acceptable blood glucose level based on the Canadian Diabetes Association's Clinical Practice Guidelines and personalized for the student by the parent/guardian/caregiver and the diabetes care team.

APPENDIX C

Supplementary Information

Resources for Training and Information

A. DVDs

Diabetes in Children and Teens: A Survival DVD and booklet.
www.trilliumhealthcentre.org

Kids talk Diabetes (8 to 10 min) Vancouver Island Health Authority 2000. For copies call 250-370-8204 or Mediasales@viha.ca

Supporting Students with Type 1 Diabetes in the Classroom (15-20 min) Trillium Health Centre, 2008 www.trilliumhealthcentre.org

Living with diabetes: Tips for teachers (19 min)
Milwaukee Wisconsin: Maxishare Productions in association with Wisconsin Connection for Children's Hospital of Wisconsin, 1996

B. Websites

Canadian Diabetes Association: www.diabetes.ca
American Diabetes Association: www.diabetes.org
Children with Diabetes at School: www.childrenwithdiabetes.com
SickKids Hospital: aboutkidshealth.ca/Diabetes
SickKids Hospital: sickkids.ca/HealthinFocus/Type-1-Diabetes/index.html
Health Canada: www.healthcanada.gc.ca/
Joslin Clinic: www.joslin.harvard.edu
Juvenile Diabetes Research Foundation: www.jdrf.ca
Ontario Physical Health Education Association: http://www.ophea.net
Trillium Health Centre: www.trilliumhealthcentre.org
Hamilton Health Sciences: www.hamiltonhealthsciences.ca
Glucagon and Hypoglycaemia:
www.hamiltonhealthsciences.ca/documents/Patient%20Education/Glucagon-lw.pdf
http://tde.sagepub.com/cgi/content/abstract/34/1/128

C. Additional Resources for School Principals and Staff

TDSB Physical Education and Outdoor Education Safety Documents
http://tdsbweb/_site/ViewItem.asp?siteid=38&menuid=6577&pageid=5731)

Toronto Public Health
www.toronto.ca/health/cdc/pdf/infectioncontrolmanual_appendices.pdf)

Kids with Diabetes in School: Resource List for School Personnel
Canadian Diabetes Association
www.diabetes.ca/Files/CardResource.pdf

Ten Tips for Teachers
www.mariemontschools.orgnurse/health/10.Diabetes_10tipsforteachers.pdf
What is Type 1 Diabetes: Trillium Health Centre

http://www.trilliumhealthcentre.org/programs_services/womens_childrens_services/childrensHealth/familyCareCentre/media/diabetesmov.html

Diabetes Management: A Handbook for Principals and School Staff
Flipchart Booklet (available July 2010)

D. Local Health Integration Network (LHIN) supporting TDSB

Toronto Central LHIN- Head Office - Toronto
(Services available in French)
250 Dundas Street West, Suite 305
Toronto, ON M5T 2Z5
Tel: 416-506-9888
Fax: 416-506-1857
Toll free: 1 888 470 2222

Central West LHIN- (Peel - North)
(Services available in French)
199 County Court Boulevard
Brampton, ON L6W 4P3
Tel: 905-796-0040
Fax: 905-796-4678
Toll free: 1-888-733-117

Central LHIN- Sheppard Ave. East Site - North York
(Services available in French)
45 Sheppard Avenue East, Suite 700
Toronto (North York), ON M2N 5W9
Tel: 416-222-2241
Fax: 416-222-6517
Toll free: 1-888-470-2222

Central East LHIN- Scarborough Branch
(Services available in French)
100 Consilium Place Suite 801
Scarborough ON M1H 3E3
Tel: 416-750-2444
Fax: 416-750-7652
Toll free: 1-800-263-3877

Mississauga Halton LHIN- Etobicoke Office
(Services available in French)
401 The West Mall
Suite 1001
Etobicoke, Ontario M9C 5J5
Tel: 905-855-9090
Fax: 905-855-8989
Toll free: 1-877-336-9090

APPENDIX D

Age-Appropriate Developmental Tasks for Children with Diabetes

**Abstracted from a survey done by Srs. T. Wysocki, P. Meinhold, D.J. Cox and W.L. Cox at Ohio State University and The University of Virginia (Diabetes Care 11:54-58, 1990).*

These are general guidelines of what children and adolescents can accomplish toward diabetes management based upon typical physical, emotional and cognitive development. Any individual may vary from this schedule for numerous reasons.

Preschool Children

- Recognize, report, and treat hypoglycaemia
- Use lancet device to obtain adequate blood sample (with support)
- State reasons for wearing diabetes identification

School-age Children (6 to 11 years)

- State insulin types and number of injections daily
- Administer injection to self
- Rotate injection sites
- Draw dose with one insulin type
- State common symptoms of hyperglycaemia
- Describe appropriate actions in response to hyperglycaemia
- Perform blood glucose test
- Categorize food into food groups
- State role of diet in diabetes treatment

Young Adolescents (12 to 14 years)

- Anticipate and prevent hypoglycaemia
- Record insulin dose and type in log book
- Draw dose with two insulin types
- Use meal plan at home and in restaurants
- Identify appropriate pre-exercise snack
- Identify appropriate physical activity

Adapted from an article entitled “Childhood Diabetes and the Family”, by Tim Wysocki and Wynola Wayne, from Practical Diabetology, June 1992, pg. 31.

Average Age for Diabetes Related Skills		
Skill	Recommended by the ADA	*Survey of Care Providers
Hypoglycaemia		
Recognizes and Reports	8-10	4-9
Able to treat	10-12	6-10
Anticipates/Prevents	14-16	7-11
Blood Glucose		
Testing (by meter)	8-10	7-11
Insulin Injection		
Gives to Self (at least sometimes)	N/A	8-11
Draws 2 insulins	12-14	8-12
Able to adjust dose	14-16	12-16
Diet		
Identifies appropriate pre-exercise snack	10-12	10-13
States role of diet in care	14-16	9-15
Able to alter food in relation to blood glucose level	14-16	10-15

APPENDIX E

Misunderstood Behaviours in the Classroom

Interference with School Activities
When blood sugar levels are outside the target range (i.e. Hypoglycaemia or Hypergly-caemia) the student's learning behaviour and participation may be affected. In the class-room, the behaviour of students with Hyperglycaemia may be taken for misbehaviour (e.g. frequent requests to go to the washroom or frequent requests drinks or other symp-toms.) Hyperglycaemia and hypoglycaemia may also affect the students' behaviour; however, having diabetes is not an excuse for inappropriate behaviour.

Sick Days
Children with diabetes are no more susceptible to infection or to illness than their class-mates. They do not need to be in a special health class at school. Their attendance record should be normal.

Illness
When children with diabetes become ill at school with the usual fevers and other child-hood sicknesses the blood glucose balance is likely to be upset. Careful monitoring with blood glucose, a fluid diet and extra insulin may be required. Such illness management is the responsibility of the parent/guardian/caregiver.

When students with diabetes become ill at school, the parent/guardian/caregiver should be notified immediately so that they can take appropriate action. Nausea and vomiting and the inability to retain food and fluids are serious situations since food is required to balance the insulin. This can lead to hypoglycaemia or be the result of hyperglycaemia.