

HEALTH INFORMATION FOR CARETAKERS OF CHILDREN AND ADOLESCENTS WITH DIABETES

Special Considerations

Children with diabetes should be carefully observed for symptoms of hypoglycemia particularly in classes before lunch. Some children may need a mid-morning or afternoon snack at school.

Since physical activity may lower blood sugar, snacks may be necessary before physical education classes and strenuous after school sports. Teachers and nurses should have a sugar source available.

High Blood Sugar/Ketones:

Elevated blood sugar can result from illness, stress, excessive or incorrect food intake, as well as from a lack of insulin. If the blood sugar is elevated before lunch, the child may need an additional insulin injection. Please check the physician's orders for parameters. If the blood sugar is over 300, urine should be checked for ketones. If ketones are positive, encourage non-sugar fluids. Always notify the parents of elevated ketone levels and treatment.

Low Blood Sugar

An imbalance of insulin, exercise and food can cause low blood sugar. Signs of low blood sugar should be recognized early and a form of sugar be given quickly to prevent a severe insulin reaction.

Common Warning Signs of Hypoglycemia/Low Blood Sugar

Shakiness

Dizziness

Fast Heartbeat

Hunger

Sweating

Impaired Vision

Anxiousness

Weakness, Fatigue

Irritability

Headache

Confusion

Stomachache

Treatment of Hypoglycemia/Low Blood Sugar

*The child should always be sent to the nurse's office with a "Buddy" since confusion and disorientation can occur

At the first sign of Low Blood Sugar:

* Test the blood sugar as soon as possible to document low glucose (less than 80 mg/dl with symptoms or less than 70 mg/dl without symptoms).

* Give sugar immediately in one of the following forms:

Glucose Tablets – 3 or 4 (15g) depending on brand

Fruit Juice – 4 oz.

Carbonated beverage (not diet or sugar free) – 4 oz.

Sugar – 2 packets or 2 teaspoons

* 15 minutes after treatment, repeat the fingerstick. Re-treat with a form of sugar if the blood sugar is still less than 70 mg/dl. If there is no improvement 15 minutes after the second treatment, repeat again. If a third treatment is necessary, call parents or physician.

* Since quick acting carbohydrate (sugar, juice, etc.) will not maintain blood glucose levels for long periods of time, treatment of hypoglycemia should be followed by a meal or snack.

* Parents must be advised of an episode of low blood sugar since insulin dosages may need to be modified.

* **Please note:** Children may experience low blood sugars before they become aware of symptoms. It can take up to 30 minutes after symptoms resolve for a child to regain full cognitive ability. On return to the classroom, the teacher should ask the child the last part of the lesson he remembers. He may need a review of the information taught just before the hypoglycemic episode.

Treatment of Severe Low Blood Sugar

In the event the child has hypoglycemic symptoms and is unable to swallow, is unconscious, or having a seizure, administer glucagon as outlined in the physician's orders .“Call 911”. The child should be transported to the nearest medical facility by emergency personnel and the diabetes health care team should be notified.

Unconscious hypoglycemic reactions must never be treated orally since children can easily choke and aspirate.

General Information

Type I or Insulin Dependent Diabetes Mellitus (IDDM) is a chronic illness which occurs when the pancreas does not produce adequate amounts of insulin.

Normally, ingested food is absorbed from the stomach into the blood stream. The pancreas then makes appropriate amounts of insulin to allow sugar in the blood stream to pass into the cells where it can be used for energy and growth.

In a child with diabetes who does not make insulin, sugar is unable to enter the cells. Blood sugar rises to higher than normal levels and overflows into the urine. This causes frequent urination leading to increased thirst. Over time this can lead to dehydration.

Diabetes is not an infectious disease. It cannot be cured but can be controlled with daily injections of insulin, a prescribed food plan and exercise. Monitoring of blood sugar can lead to improved diabetes control which in turn minimizes the risk of diabetic complications to the eyes, kidneys and blood vessels.

Although children with diabetes can participate in all school activities, it is important that all school personnel who have contact with the child be educated about the disease. This may include bus drivers, special activity advisors/coaches, lunchroom personnel as well as the classroom teacher.

Blood Glucose Testing

Since high and low blood sugars can negatively impact a child's school performance, fingerstick blood glucose testing is encouraged for all students with diabetes. Testing should be done just prior to lunch in addition to before breakfast, dinner and bedtime. It should also be done anytime the child feels that his blood sugar is too low or too high. Sometimes it is helpful to check blood sugars before

times of increased activity (e.g. gym class). Optimally, the blood sugar target should be 100 mg/dl.

Instructions for Blood Glucose Monitoring

The correct procedure for blood glucose monitoring will ensure accurate readings.

Students must always be monitored by an adult during this testing process.

Preparation and Fingertick: The child should wash his/her hands thoroughly with warm water and soap, or wipe the selected finger with alcohol. After the finger dries, use a lancet for blood drawing. The side of the fingertip should be used rather than the fleshy pad, which can be more painful. The first drop of blood should be wiped away as it may be diluted with water or alcohol. If the fingers become sore, the ear lobes may be used.

Meter: Almost all blood glucose meters are user-friendly and alert users to errors. Parents will supply the meter and supplies needed for testing. They should demonstrate the use of their child's meter and may request a return demonstration. Unless you have used this meter before on a regular basis, please review the procedure carefully. The meter should be calibrated with control solution each time a new bottle of strips is opened.

Recording: Consistent documentation of blood glucose results is critical to the proper management of diabetes. Tests results should be provided to the parents.

For further information please refer to Guidelines for the Care of Students with Diabetes in the School Setting: NJ Dept. of Education, January 2000.