

DIABETES



DEFINITIONS:

Diabetes is a general term referring to a variety of disorders that are divided into two groups: diabetes mellitus and diabetes insipidus.

Diabetes mellitus is a group of metabolic disorders resulting from insufficiency of insulin. The two most common types of diabetes mellitus are insulin dependent and non-insulin dependent diabetes.

Diabetes insipidus results from an inability to concentrate urine in the kidneys. The two types of diabetes insipidus are pituitary and nephrogenic.

TYPES OF DIABETES:

Insulin-dependent diabetes (Type I): is a condition in which the pancreas stops producing insulin and is usually diagnosed before 18 years of age. Insulin helps the body use carbohydrates. Students manage diabetes by taking insulin, eating regular nutritional meal and snacks, exercising regularly and monitoring blood sugars.

Non-insulin-dependent diabetes (Type II): onset is gradual and frequently does not occur until after 30 years of age. Insulin therapy is usually not necessary because individuals with this type of diabetes usually retain some insulin secretion capabilities. Obesity usually accompanies Type II diabetes.

High blood sugar (hyperglycemia) is a problem for active individuals with Type I or Type II diabetes. It results when daily exercise volume is suddenly reduced without increasing insulin or oral agents used to control glucose levels.

SYMPTOMS OF HYPERGLYCEMIA:

- Inattentiveness
- Extreme thirst
- Lethargy
- Frequent need to go urinate

Low blood sugar (hypoglycemia) is the greatest concern of the individual who has Type I diabetes. Hypoglycemia can occur quickly and needs immediate attention. Skipping or delaying meals or snacks, exercising or too much insulin can cause blood sugar to fall rapidly.

SYMPTOMS OF HYPOGLYCEMIA:

- Shaking/trembling
- Weakness
- Sudden hunger
- Sudden silence
- Inability to concentrate
- Irritability/mood swing
- Sleepiness
- Inappropriate responses
- Double vision
- Headache
- Sweating
- Mental slowness
- Sudden anger
- Slurred speech
- Numbness

FIRST AID FOR INDIVIDUALS WITH DIABETES:

If the student's blood sugar is high:

- Let the student rest if lethargic.
- Exercise the student if hyperactive.

If the student's blood sugar is low, give one of the following:

- Some form of sugar immediately (4 to 8 oz. of a regular soft drink, fruit juice or a commercial gel or sugar tablet).

When improvement occurs, give additional food. If the student does not improve after sugar intake, call for emergency assistance.

- Permit the diabetic student to leave the classroom to take medication, test blood sugar or to ingest sugar.
- Take care of cuts and bruises immediately, because diabetic students can develop skin infections easily.
- If the student becomes unconscious or is unable to take the sugar, call the nurse immediately.

TEACHING TIPS AND SPECIAL CONSIDERATIONS:

- Determine physical activity tolerance levels through communication with the student's parents and physician. If Indicated, supervise blood sugar test before & after class.
- Help the student schedule physical education within two hours of eating.
- Avoid psychological stress caused by competitive or excitatory activities. Stress may influence the student's metabolic rate, which in turn changes blood sugar levels.
- Avoid having the student walk barefoot.

- Avoid wearing clothes that are too tight, because this could cause circulatory restrictions.
- Exercise with a buddy who knows signs of hyperglycemia and hypoglycemia.
- Drink water before, during and after exercise.
- Keep a log book of blood sugar levels, dosage of insulin, amount and type of food eaten and type and intensity of exercise.
- Encourage the student to exercise.
- Avoid conducting all components of fitness testing in one session if individual is unaccustomed to such activities.
- Monitor adjustments to diet/insulin administration with respect to physical activity as per physician's Instructions.
- Encourage proper foot care and the reporting of any symptoms listed above
- Follow predetermined emergency plan.

Information on this sheet contains only suggested guidelines. Each student must be considered individually, and in many cases, a physician's written consent should be obtained.