Kennedy Krieger Institute

Maryland State Department of Education
Preparing World Class Students

Factsheet: Diabetes

SHNIC
Specialized Health Needs
Interagency Collaboration

What is it?

Diabetes is a chronic condition associated with abnormally high levels of sugar (glucose) in the blood. Insulin, a hormone produced by the pancreas, lowers blood glucose. Diabetes results from an absence of insulin, an insufficient production of insulin, or the inability of the body to properly use insulin. Diabetes management requires a balance of food intake, exercise, insulin and sometimes other medications. It is a condition that requires continuous, careful monitoring.

Type 1 diabetes is formerly known as insulin-dependent diabetes or juvenile diabetes. T1 results when the pancreas loses its ability to make the hormone insulin. The person's own immune system attacks and destroys the cells in the pancreas that produce insulin. Once those cells are destroyed, they can never make insulin again. The exact cause of T1 diabetes is unknown. Scientists do know that in most people with type 1 diabetes, the body's own immune system, which normally fights harmful bacteria and viruses, mistakenly destroys the insulin-producing (islet) cells in the pancreas. Genetics may play a role in this process and exposure to certain viruses may trigger the disease.

Type 2 diabetes is formerly known as non-insulin-dependent diabetes or adult-onset diabetes. T2 results from the body's inability to respond to insulin normally. Unlike people with T1 diabetes, most people with T2 diabetes can still produce insulin but not enough to meet their body's needs.

Low blood sugar

Hypoglycemia	Blood glucose less than 70 mg/dL
Causes	Taken too much insulin, altered the amount or pattern of food intake, participated in large amount of exercise
Symptoms	Hunger, irritability, shakiness, headache, not feeling well, sweaty, change in behavior, slurred speech, seizure
Treatment	Each student should have an Individualized Diabetic Management Plan that will give specific orders and instructions of what needs to be done regarding giving fast acting glucose. Forms of fast acting glucose include cake mate gel, glucose tablets, juice, teaspoons of honey, and sugar. Glucagon, an emergency medication, would only be given if the student is unresponsive and has severe hypoglycemia. When glucagon is given, 911 is called and the student is placed in the recovery position on their side.

High blood sugar

Hyperglycemia	Blood glucose greater than 240 mg/dL
Causes	Not enough insulin given, too much food intake, stress, decreased activity, during growth spurt in adolescents
Symptoms	Increased urination, increased thirst, blurred vision, increased hunger
Treatment	Water, Insulin and/or exercise

Each student should have an Individualized Diabetic Management Plan that will give orders of what needs to be done regarding the safe care and treatment for the individual student.

Role of Parent

- Provide Individualized Diabetic Management Plan to school nurse that includes the healthcare provider orders.
- Communicate any changes and update the orders as necessary, including phone numbers, sports, after school sponsored activities.
- Provide all supplies to manage the diabetes in the school setting (test strips, insulin, batteries, monitors etc.)
- Provide snacks.

Role of the School

- Organize a 504 team meeting and consider the following:

  Missed class time, missed class work, testing accommodations, monitoring blood sugar in classroom, eating snacks in classroom, student to carry water at all times, adult to accompanied student if not feeling well
- Provide training to appropriate school staff including bus drivers and substitutes regarding management and safety while in school or on the bus.
- Communicate with school nurses any concerns in classroom.
- Review accommodates that are required regarding school field trips and afterschool sponsored activities.
- Assess and evaluate that all accommodations are met.

SHNIC school nurses information:

Specific health issues for individual health care plans

- Review orders from healthcare provider.
- Provide training for staff regarding diabetes management in the school setting.
- If necessary, write Individualized Health care plan.
- Complete Emergency Action Plan and share with parent and appropriate school staff.
- If student is able to self manage , ensure method of communication to share blood sugar levels and treatment.
- Evaluate student's ability to self manage. Spot checks for supplies may be necessary.
- If student is not independent in diabetic care, obtain parental consent to help train the student based on their developmental and cognitive age.
- Communicate with school staff, parents, and provider any changes or concerns about the student's disease.
- Monitor supplies and make sure that supplies are readily available.

Resources & Manuals

NIH: Helping the student with diabetes succeed

https://www.niddk.nih.gov/health-information/health-communication-programs/ndep/health-care-professionals/school-guide/Pages/publicationdetail.aspx

National Diabetes Education Initiative: Diabetes management guidelines

http://www.ndei.org/ADA-diabetes-management-guidelines-children-adolescents-type-1-diabetes-type-2-diabetes.aspx.html

Killeen Independent School District: A guide to diabetes management in the school setting

https://www.killeenisd.org/schoolDocs/c8/documents/KISDDiabetesInfo.pdf