

3. What Are Key Terms and Concepts for Diabetes Advocates?

This section lists a number of terms used in connection with diabetes care and the legal rights of students with diabetes with which advocates will want to be familiar.

3.1 What are some common terms related to diabetes care?

Blood glucose level: The amount of glucose in the blood. The recommended blood glucose levels for most people with diabetes are from about 80 to 120 before a meal, 180 or less after a meal, and between 100 and 140 at bedtime.

Blood glucose meter: A device that measures how much glucose is in the blood. A specially coated test strip containing a fresh sample of blood (obtained by pricking the skin, usually the finger, with a lancet) is inserted in the meter, which then measures the amount of glucose in the blood.

Blood glucose monitoring: The act of checking the amount of glucose in the blood. When done by the individual with diabetes, it is also called self-monitoring of blood glucose. For more information on the importance of blood glucose monitoring, see Question 2.3.

Carbohydrates: One of the three main classes of foods and a source of energy for the body. Carbohydrates are mainly sugars and starches that the body breaks down into glucose.

Glucagon: A hormone that raises blood glucose. Glucagon, given by injection, is used to treat severe hypoglycemia. For more information on glucagon and its use, see Question 2.7.

Glucose: A simple sugar found in the blood. It is the body's main source of energy.

Hyperglycemia: A high level of glucose in the blood. High blood glucose can be due to taking too little insulin, eating food not covered by insulin, or too little exercise. Symptoms include thirst, frequent urination, blurred vision, and fatigue. For more information on hyperglycemia, see Question 2.8.

Hypoglycemia: A low level of glucose in the blood. Low blood glucose is most likely to occur during or after exercise, if too much insulin is present, or not enough food is consumed. Symptoms include feeling shaky, having a headache, or being sweaty, pale, hungry, or tired. If not treated with a source of sugar, hypoglycemia can lead to a loss of consciousness, which can be life-threatening. For more information on hypoglycemia, see Question 2.7.

Insulin: A hormone produced by the pancreas that helps the body use glucose for growth and energy. When the body cannot make enough insulin, it is taken by injection using a syringe or pen, or through use of an insulin pump, and there are several different types of man-made insulin that can be injected. These types differ in how long they take to begin working and how long their effects last, and are used separately or in combination to treat people with diabetes. For more information on insulin administration, see Question 2.6.

Insulin injections: The process of administering insulin into the body with a syringe or pen.

Insulin pen: A pen-like device used to administer insulin into the body.

Insulin pump: A device that delivers a continuous supply of insulin. The pump is often programmed to deliver small, steady doses of insulin throughout the day. This steady dosage is known as the basal rate. Additional doses, called boluses, are given to cover food or high blood glucose levels. The pump holds a reservoir of insulin which is delivered through a system of plastic tubing (infusion set). Most infusion sets are started with a guide needle, then the plastic cannula (a tiny, flexible plastic tube) is left in place, taped with dressing, and the needle is removed.

Ketoacidosis: A serious condition that occurs due to insufficient insulin in the body because of illness, incorrect doses of insulin, or omitting insulin injections. The lack of insulin causes acids known as ketones to build up in the blood and to be discharged in the urine. The acidic state that follows causes fruity smelling breath, deep and rapid breathing, stomach pain, nausea, vomiting, and sleepiness, and can lead to diabetic coma or even death if not properly treated. Also known as diabetic ketoacidosis or DKA.

Lancet: A fine, sharp-pointed needle used to prick the skin of a person with diabetes to obtain a sample of blood for blood glucose monitoring.

Pancreas: The organ behind the lower part of the stomach that makes insulin.

Quick-acting glucose: Foods containing simple sugar that are used to raise blood glucose levels quickly during a hypoglycemic episode.

Target range: A selected level for blood glucose values that the person with diabetes tries to maintain. The target range is usually determined by the physician in consultation with the patient or parent/guardian.

3.2 What are some common terms related to the legal rights of students with diabetes?

Accommodations: The term “accommodations” is often used to refer to the related aids and services provided to elementary and secondary school children or to the academic adjustments and auxiliary services provided those in higher education pursuant to laws such as Section 504, the Americans with Disabilities Act or the Individuals with Disabilities Education Act. When so used, accommodations involve adjustments or modifications in programs or related services to ensure that a child can participate equally and fully in an educational program. The more appropriate term in this context is “related aids and services.” The term “accommodations” is more properly used only in the employment context, where “reasonable accommodations” refers to the modifications or adjustments employers make that enable an employee with a disability to enjoy equal benefits and privileges of employment. Using this phrase can incorrectly suggest that “accommodations” in the education context need not be provided if they would result in an “undue burden”. While the concept of “undue burden” limits the duty to provide accommodations in the employment context, it does not apply in education. Thus, while the term “accommodations” has become common in the elementary and secondary school setting,

and appears in this notebook, it should be seen as a shorthand for “related aids and services” and should not be understood as requiring the same showing as in the employment context.

Americans with Disabilities Act (or “ADA”): A federal law enacted in 1990 that prohibits discrimination against people with disabilities. As it relates to public schools, the requirements of the ADA are almost identical to those of Section 504 of the Rehabilitation Act. The ADA applies to all public schools and to all private schools except those controlled by religious organizations. The ADA is codified at 42 U.S.C. § 12101 *et seq.*

Diabetes Medical Management Plan: Describes the medical orders or diabetes treatment regimen developed by the student’s health care provider and family. The phrase Diabetes Medical Management Plan (or “DMMP”) is growing in use, but this document may also be referred to as physician’s orders or by other names.

Individualized Education Program (IEP): A plan describing the special education and related services that will be provided to a student with a disability under the Individuals with Disabilities Education Act. Some school districts also use IEPs to meet the requirements of Section 504.

Individuals with Disabilities Education Act (IDEA): A federal law that provides funds to states to support special education and related services for children with disabilities, administered by the Office of Special Education Programs in the U.S. Department of Education. Unlike the ADA or Section 504, to be eligible for services under IDEA, a student’s diabetes must impair his or her ability to learn so that he or she requires special education. The IDEA is codified at 20 U.S.C. § 1400 *et seq.*

Office of Civil Rights (OCR): Agency within the U.S. Department of Education responsible for enforcing Section 504 and, by agreement with the U.S. Department of Justice, Title II of the Americans with Disabilities Act as they apply to educational institutions. OCR’s duties include investigating complaints and conducting compliance reviews of states and local school districts.

Related Aids and Services: A phrase used in the elementary and secondary school context to describe the developmental, corrective, and other supportive services provided to give equal access to the educational curriculum for students with disabilities

Section 504: Section of the Rehabilitation Act (a federal law passed by Congress in 1973) that prohibits recipients of federal funds from discriminating against individuals on the basis of disability. Section 504 requires schools to provide students with disabilities appropriate educational services designed to meet the individual needs of such students to the same extent as the needs of students without disabilities are met. Section 504 is codified at 29 U.S.C. § 794.

Section 504 Plan (or 504 Plan): A plan describing the special education and/or related services that a student with a disability will be provided in order to have equal access to education, as required by Section 504 of the Rehabilitation Act.

3.3 Is there a difference between “handicap” and “disability?”

No. The two terms are interchangeable, although the term “disability” is preferred today. Although early state and federal laws use the term “handicap”, and some of the regulations implementing Section 504 still use that term, more recent statutes like the Americans with Disabilities Act use the term “disability.”

3.4 What is the relationship between a Diabetes Medical Management Plan and a 504 Plan?

A Diabetes Medical Management Plan and a Section 504 Plan contain different information, even though they are sometimes confused. The DMMP, in effect, is a physician’s order. It outlines a child’s treatment regimen and is prepared by a child’s health care provider in consultation with the child’s family. School officials might well ask questions about or offer suggestions regarding the DMMP to a physician or family, but they do not prepare these directions. A Section 504 Plan is coordinated with and must be consistent with the DMMP. However, the Section 504 Plan specifies the who, what, where, and when to implement the DMMP in the school setting. The DMMP, for example, might say that the child should monitor his or her glucose each day at a specific time with supervision by school staff, and the Section 504 Plan will provide which school personnel will provide that supervision. The 504 Plan is prepared by the school but must ensure that decisions are made by a group of persons knowledgeable about the child and that the child’s parents or guardians are given an opportunity to participate in the process.