Washington Office of Superintendent of
PUBLIC INSTRUCTION

# *Guidelines for Care of Students with Diabetes*

**2024**

# GUIDELINES FOR CARE OF STUDENTS WITH DIABETES

## 2024


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# REVISION LOG

Changes to this document made after June 28, 2023, will be noted in the table below.

| Section | Page | Description of Revision | Revision Date |
|---|---|---|---|
| All | | Alignment with American Diabetes Association where regulations allow | 2023 |
| 2 | 6 | Cultural considerations | 2023 |
| 1 | 9 | Added five types of diabetes with descriptions | 2023 |
| 2 | 11 | Consolidated laws and legal requirements into Section 2-Federal and State Regulations. Eliminated this information in an Appendix. | 2023 |
| 5 | 36 | Added intranasal insulin | 2023 |
| 9 | 63 | Added NA-C/NA-R (Nursing Assistants Certified and Registered Nursing Assistants) to quick reference guide by activity | 2023 |
| 5 | 40 | Added information about refrigerator temperature monitoring for insulin storage | 2023 |
| 5, 14 | 38, 84–5 | Do-It-Yourself (DIY) Automated Insulin Delivery (AID) Systems and Closed loop Systems | 2023 |
| 7 & 8 | 48,57 | Added intranasal glucagon | 2023 |
| 12 | 73 | Added RCW 28A.600.477 Prohibition of harassment, intimidation, and bullying. | 2023 |
| 12 | 75 | Added Nurse Licensure Compact | 2023 |
| 12 | 74 | Added Clinical Laboratory Improvement Amendments of 1988 (CLIA) Waiver | 2023 |
| | | Removed forms from appendix and replaced with links | 2023 |
| App B | 95 | Added Common Acronyms and Definitions (Appendix B) | 2023 |
| | | Deleted appendices/sections:<br>• Appendix P: Guidelines for School Parties and/or Unplanned Eating (p 94)<br>• Sample School Meal Nutritional Information Menu (p 97) | 2023 |

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| | | • Appendix U: Insulin Action Chart (p 108) – new insulin chart p. 32, section 5 | |

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# INTRODUCTION AND ACKNOWLEDGEMENTS

The purpose of this guide is to educate school personnel about effective diabetes management and to provide families of students with diabetes, parent-designated adults (PDA), school personnel, and licensed healthcare providers (LHCP) with the information and procedures necessary to provide students with a safe learning environment and access to all school-sponsored activities.

According to the Washington State Department of Health (WDOH), approximately 2,970 youth under 18 years old (1 in 550) in the state of Washington had diabetes in 2017.[1] Not only is diabetes the seventh leading cause of death by disease in the US,[2] long-term complications are serious.[3] Although there is no cure, diabetes is highly treatable. With proper management, complications of diabetes may be delayed or prevented, and those affected may live healthy and productive lives. It is important to remember that these students are individuals who happen to have diabetes.

This is the fourth edition of the guidelines. In 1998, the Office of Superintendent of Public Instruction (OSPI) and the American Diabetes Association (ADA) joined together to create the Washington State Task Force for Students with Diabetes (WSTFSD). The task force created the first edition of the *Guidelines for Care of Students with Diabetes*, which was updated in 2005 and 2018. Since 2018, diabetes research and practice have undergone significant changes to diabetes technology and treatment in the school setting.

The purpose of this guidance is to provide education and resources for the school health team regarding effective diabetes management and to share practices that enable schools to ensure a safe learning environment for students with diabetes. As diabetes management is a collaborative effort, the guidelines are intended for a broad audience, including parents, guardians, school health personnel, and students.

OSPI acknowledges and thanks the members of the original 1998 Washington State Task Force for Students with Diabetes and the 2005, 2018, and 2023 workgroups for their time, expertise, and ongoing commitment and support. The committee members help ensure this document will provide useful, comprehensive guidelines for schools, families, students, and their medical providers.

## Cultural Considerations

Washington State schools are racially and ethnically diverse. To meet the healthcare needs of students from multicultural communities, it is important that school staff respond with respect and humility toward the cultural needs of all students and their concepts of wellness, illness, and healthcare. The Washington State Professional Educator Standards Board identifies principles for educators to promote equity with cultural competency that address "...students' experiences and individual cultural contexts"[4].

## Parent Definition

These guidelines use the word "parent' to be inclusive of all the adults who may have the authority to make educational and medical decisions for the child in accordance with the Washington Administrative Code (WAC) definition in WAC 392-172A-01125

The term parent is not used exclusively, and the term parent/guardian may also occur throughout the manual as well.

### *Language Guidance*

The language we use matters. Children are more than their health condition. They are people first. Please do not refer to students as "diabetics." See Speaking the Language of Diabetes: Language Guidance for Diabetes-Related Research, Education and Publications for excellent information on how to talk to and about people with diabetes.

# Legal Disclaimers

Information in the guidelines is not intended to render medical advice or other professional services for the readers. The guidelines are not intended to replace clinical judgment or individualized consultation with Licensed Health Care Providers (LHCP). Persons accessing this information assume full responsibility for its use and understand and agree that the contributing organizations are not responsible or liable for any claims, loss, or damage arising from use of the information.

Recommendations made in these guidelines should never be substituted for legal counsel in any individual situation. The law may be silent, unclear, or superseded by new legislation on specific aspects of care. In these instances, it is recommended that district administrators consult with district legal counsel and a risk management consultant. When addressing situations or questions, consider district policies and procedures that should reflect current state and federal statutes and district practice.

References to specific products, processes, resources, websites, or services do not constitute or imply recommendations or endorsement by the contributing organizations.

New developments in treatment may emerge or new laws may be created between updates of these guidelines. Refer to pertinent regulations, policies, and standards of care to guide care planning decisions. Readers are encouraged to confirm the information contained herein with other sources and to seek the care of a healthcare professional if medical care or advice is needed. School Nurses are professionally responsible for knowledge and adherence to current law and standards of practice.

# SECTION 1: OVERVIEW OF DIABETES

## What is Diabetes?

Diabetes is a chronic disease in which blood glucose (sugar) levels are above normal. People develop diabetes because the pancreas produces little or no insulin (type 1) or because the body does not use insulin properly (type 2). Insulin helps the body utilize food by converting glucose into energy. Without insulin, glucose accumulates in the bloodstream and may lead to complications.

Diabetes is one of the most common chronic diseases of childhood. In the United States, about 283,000 young people under age 20—or 35 in every 10,000 youth— have been diagnosed with the disease. This includes 244,000 youth with type 1 diabetes.[5] This estimate does not account for those who have diabetes but are undiagnosed.

As with adults, the prevalence of diabetes in young people is increasing and varies by racial and ethnic group.[6] Nationally, the prevalence of type 1 diabetes in people younger than 19 years old increased from 0.15% in 2001 to 0.21% in 2017. Compared with other groups, non-Hispanic white youth had the highest prevalence of type 1 diabetes. While still uncommon, the prevalence of type 2 diabetes among youth aged 10–19 years increased from 0.03% to 0.07% over the same period. For type 2 diabetes, prevalence is higher among non-Hispanic Black and Hispanic youth.

Diabetes management is important. Ongoing high blood glucose (hyperglycemia) can lead to serious long-term complications, including vision loss, kidney disease, nerve damage, foot problems, and dental disease, heart disease and stroke.[7] Although there is currently no cure for diabetes, complications can be greatly reduced, delayed, or possibly prevented through consistent treatment that keeps blood glucose near normal. Treatments include administering insulin or other blood glucose-lowering medications on a regular basis, monitoring glucose several times a day, eating nutritious meals and snacks, and following a regular exercise program. A balance between insulin, food, and exercise must be maintained to prevent blood glucose levels from being either too low (hypoglycemia) or too high (hyperglycemia).

## Types of Diabetes

### *Type 1 Diabetes*[8]

Type 1 diabetes (formerly known as juvenile diabetes or insulin-dependent diabetes) occurs when the body's immune system attacks and destroys certain pancreatic cells that produce insulin. People with type 1 diabetes must administer insulin via multiple daily injections or an insulin pump and must carefully balance their food intake and exercise to regulate their blood glucose levels. Hypoglycemia, or dangerously low blood glucose, is a common and potentially life-threatening complication with which people who rely on insulin must contend. Tight control of blood glucose levels, which prevents the long-term complications associated with diabetes, may lead to more frequent hypoglycemia.

Type 1 diabetes is the most common form of diabetes in childhood, and is usually diagnosed in children, teenagers, and young adults.[9] It is unknown why some people develop type 1 diabetes, though there appears to be genetic factors. There are no modifiable factors, such as obesity or high blood pressure, known to contribute to type 1 diabetes.[10] Research is taking place to develop new treatments and tests to detect risks of development of type 1 diabetes, and to work toward identifying a cure.

**Symptoms:** A child or teen may feel very tired, thirsty, or sick to the stomach, and have the need to urinate often. Other symptoms may include unexplained weight loss (even if eating more), blurry vision, frequent infections, and slow healing of wounds or sores. These symptoms may be mistaken for the flu or other rapid-onset illness. If not diagnosed and treated with insulin, the student could lapse into a life-threatening condition known as Diabetic Ketoacidosis (DKA). Signs of DKA include vomiting, sleepiness, fruity breath, and difficulty breathing. If untreated, DKA can lead to coma or death.[11] Early detection and treatment of diabetes can decrease the risk of developing future complications from diabetes.

**Risk Factors:** As mentioned above, there are no modifiable risk factors known to contribute to type 1 diabetes. According to the National Diabetes Education Program, researchers believe that type 1 diabetes is caused by a combination of genetic and environmental factors that are beyond the individual's control.[10,12] However, people with type 1 diabetes are at higher risk of developing celiac and other autoimmune diseases, and vice versa.[12]

## Type 2 Diabetes[8]

Type 2 diabetes occurs when the body does not make enough insulin or does not use insulin well. This is known as insulin resistance. Too much glucose stays in the blood and not enough reaches the cells. The pancreas continues to try to make more insulin, but after several years, insulin production may drop off. It may become necessary for a child with type 2 diabetes to receive insulin via a pump or injection, like a child with type 1 diabetes.

Although type 2 diabetes most often affects middle-aged and older adults, it has been occurring more often in young people, coinciding with the increasing prevalence of childhood obesity[6,9]. To manage their diabetes, children with type 2 diabetes may need to take oral medication, insulin, or both. People with type 2 diabetes can experience high and low blood glucose and they must be treated with the same seriousness as when symptoms occur for a person with type 1 diabetes. The immediate urgency of treating low blood glucose as well as concerns about prolonged high blood glucose and ketones are the same for any person with diabetes. Ketones result from the breakdown of lipids (fat) in the body, due to glucose insufficiency or insulin inactivity.

**Symptoms:** Type 2 diabetes develops slowly in some children, and quickly in others. Symptoms may be similar to those of type 1 diabetes. A student can feel very tired, thirsty, or nauseated (sick to the stomach), and have to urinate often. Other symptoms may include feeling very hungry (even though the child is eating), blurred vision, frequent infections, and slow healing of wounds or sores. Tingling, pain, or numbness in the hands and feet are other symptoms of type 2 diabetes. Some

children with type 2 diabetes may show no symptoms at all when they are diagnosed. For that reason, it is important for families to talk to a healthcare provider about testing children and teens who are at elevated risk for the disease.

**Risk Factors:** Several risk factors for type 2 diabetes have been identified.[9] Some are non-modifiable, such as being older than 10 years of age, experiencing puberty, having a family member with type 2 diabetes, and ethnicity. In the US, type 2 diabetes is more common in non-Hispanic Black, American Indian and Alaska Native, Hispanic, and Asian/Pacific Islander youth.[9] Modifiable risk factors that significantly increase the risk of developing type 2 diabetes include being overweight or obese and lack of physical activity. Additionally, physical signs of insulin resistance, such as acanthosis nigricans (A- can-tho-sis NIG-reh-cans), may appear: the skin around the neck or in the armpits appears dark, thick, and velvety. High blood pressure also may be a sign of insulin resistance. For children and teens at risk, healthcare providers can encourage, support, and educate families to make lifestyle changes that may delay, or prevent, the onset of type 2 diabetes. Such lifestyle changes include keeping at a healthy weight and staying active. Parents/guardians should contact their licensed healthcare provider (LHP) about screening for type 2 diabetes or prediabetes if there are concerns about risk factors.

## Gestational Diabetes

Diabetes can also develop during pregnancy, which is known as gestational diabetes mellitus (GDM). Gestational diabetes is caused by the hormones of pregnancy, which may lead to insulin resistance or insulin deficiency. Although gestational diabetes typically resolves after the birth of the baby, a person who has had gestational diabetes is at a higher risk of developing diabetes later in life. Furthermore, babies born to a parent with gestational diabetes are at increased risk of health problems, childhood obesity, and developing type 2 diabetes. In the state of Washington, the teen birth rate is about 11.3 births per 1000 females ages 15–19,[13] and between 2015–2017, 3% of births to pregnant people under 20 years old were affected by gestational diabetes.[1]

### *Other Types Of Diabetes:*

In addition to type 1, type 2, and gestational diabetes, there are other less common forms of diabetes including maturity onset diabetes of youth (MODY), cystic fibrosis related diabetes (CFRD), medication-induced diabetes, and diabetes due to surgical pancreatectomy.

**MODY** is caused by an autosomal dominant gene that runs in families. Most types do not require insulin and may typically be managed with or without oral medication. Several of the less common forms of MODY do require insulin and may be associated with birth defects. Genetic testing is necessary to make the diagnosis.

**CFRD** occurs in people with cystic fibrosis and results from the destruction of the digestive and endocrine cells of the pancreas. The loss of beta cells in the pancreas results in high blood glucose levels and necessitates insulin administration.

**Medication-induced diabetes** may occur secondary to medications used to treat various diseases including cancers, kidney disease, and others that may cause high blood glucose and require insulin administration. Many patients will still require insulin therapy despite no longer taking the medication.

A **pancreatectomy** removes part or all of the pancreas and typically the islet cells required for insulin secretion, therefore requiring the need for insulin administration to effectively metabolize glucose.

# SECTION 2: FEDERAL AND STATE REGULATIONS

Federal and state laws provide protection for students with diabetes and address the school's responsibility in the implementation of effective diabetes management in the school setting. School districts are legally obligated by these laws to ensure students with diabetes have equal access to their free appropriate public education (FAPE).

## Federal Laws and Regulations

Section 504 of the Rehabilitation Act of 1973 (Section 504) The duty of public schools is to provide a free and appropriate public education (FAPE) for students with disabilities; protects students with disabilities from discrimination. A student with Diabetes qualifies as a student with a disability under Section 504.

The Americans with Disabilities Act of 1990 (ADA) Prohibits discrimination for individuals with a disability. Diabetes is identified as a physical disability that limits one or more major life activities.

Individuals with Disabilities Education Act of 1976 (IDEA) Prescribes the duty of states and public agencies to provide early intervention, special education, and related services for students whose disability impacts their ability to learn. For more information visit the OSPI website.

Americans with Disabilities Act Amendment Act of 2008 (IDEA) Expanded the ADA to include learning, reading, thinking, and concentrating as protected major life activities.

Clinical Laboratory Improvement Amendments of 1988 (CLIA) CLIA regulations establish quality standards for laboratory testing performed on specimens from humans, such as blood, body fluid and tissue, for the purpose of diagnosis, prevention, or treatment of disease, or assessment of health. Per the FDA (Food and Drug Administration), the CLIA Program regulates labs testing human specimens and ensures they provide accurate, reliable, and timely patient test results no matter where the test is done in the U.S.

The Family Education Rights and Privacy Act (FERPA) of 1974 Protects the privacy of student information by restricting access to individual student records. Addresses student confidentiality including the notification of student and parental rights regarding access to student records.

McKinney-Vento Homeless Act - Revision by the ESSA Act Prescribes the rights of students experiencing homelessness in America. For more information, see the Federal Register McKinney-Vento webpage or the federal McKinney-Vento law.

Occupational Safety and Health Act (OSHA) Part 1910 Title 29B Chapter XVII Prescribes federal workplace health and safety regulations.

FEDERAL NUTRITION SPECIFIC REGULATIONS: Accommodating Children with Special Dietary Needs in the School Nutrition Programs – Child Nutrition Program Regulations Includes nutrition guidelines and establishes the duty of school food nutrition programs to avoid discrimination against students with a disability. Defines items related to food nutrition. See the Department's regulations on nondiscrimination in federally assisted programs. Note: See 7 CFR Part 15b; 7 CFR Sections 210.10(m (1), 210.23(b), 215.14, 220.8(f), 225.16(c)(3)(ii)(F), 225.16(g)(l) & (e), 226.2(c), 226.6(v)(4)(ii), 226.20(g)(h) and 226.23(b) for regulations.

## Washington State Laws

### *Revised Code of Washington (RCW)*

RCW, or law, is the result of legislation that has been passed by the House and Senate and has been signed by the Governor.

RCW 4.24.300 Immunity from liability for certain types of medical care. "Good Samaritan Law" – Immunity from Liability in Medical Care Provides protections for any school district employee not licensed under chapter 18.79 RCW who renders emergency care at the scene of an emergency during an officially designated school activity.

RCW 7.70.065 Informed consent—Persons authorized to provide for patients who do not have capacity—Priority—Unaccompanied homeless minors. Clarifies that informed consent may be obtained from a school nurse, school counselor, or homeless student liaison for health care on behalf of a patient/student who is under the age of majority and who is not otherwise authorized to provide informed consent.

RCW 18.71 provides Licensing exemptions (18.57) and defines nursing care (18.79). Legal parameters applicable to the registered nurse and advanced registered nurse practitioners to consult and coordinate with students' parents and health care providers, to train and supervise the appropriate school district personnel in proper procedures for care for students with diabetes.

> RCW 18.71: Physicians. This law defines the purpose of the Washington State Medical Commission to regulate the competency and quality of professional health care and its full jurisdiction by establishing, monitoring, and enforcing rules, policies, and procedures.
>
> RCW 18.57:Licensing exemptions. This chapter covers all licensing exemptions, especially as applied to emergency and student related situations.
>
> Chapter 18.79 RCW Nursing Care. Washington state educational and nursing laws according to chapters. This law is often referred to as the "Nurse Practice Act ". The law lists the practice and licensure requirements of Registered Nurses (RN), Licensed Practical Nurses (LPN), and Advanced Registered Nurse Practitioners (ARNP). It governs nursing practice for every setting. In public schools, RNs are responsible for developing, implementing, and managing student emergency care plans. This includes delegation, training, and supervision of student medication administration by non-licensed staff.

Title RCW 28A Common School Provisions. Washington state Education laws.

RCW28A.210.260 Public and private schools—Administration of medication—Conditions. This law provides for the administration of oral medication, topical medication, eye drops, ear drops, or nasal spray in Washington state schools.

RCW28A.210.270 Public and private schools—Immunity from liability—Discontinuance, procedure.

RCW 28A.210.305 Registered nurse or advanced registered nurse practitioner—Duties relating to nursing care of students—Notice to school districts. This law clarifies that an RN or an ARNP working in a school setting is authorized and responsible for the nursing care of students to the extent that the care is within the practice of nursing. It clarifies the independent clinical practice of an RN in the school setting including medication administration and the summoning of emergency medical assistance.

RCW 28A.210.330–Students with diabetes—Individual health plans -Designation of professional to consult and coordinate with parents and health care provider—Training and supervision of school district personnel. Provides significant guidance related to health planning under various conditions. Also addresses proper procedures for parents to designate a Parent Designated Adult (PDA) to assist students in managing their diabetes.

RCW 28A.210.340 Students with diabetes–Adoption of policy for Inservice training for school staff. Training guidance plus standards and skills.

RCW 28A.210.350 Students with diabetes or epilepsy or other seizure disorders—Compliance with individual health plan—Immunity. Compliance with a student's individual health plan and licensed healthcare provider instructions.

RCW 28A.210.255 Provision of health services in public and private schools — Employee job description. Any employee of a public school district or private school that performs health services must have a job description that lists all the health services that the employee may be required to perform for students.

RCW 28A.600.477 Prohibition of harassment, intimidation, and bullying. School districts are required to have anti-bullying policies and procedures. Bullying behavior must be addressed promptly according to district policy. See OSPI information on harassment, intimidation, and bullying.

RCW 70.02 – Medical Records – Health Care Information Access and Disclosure. This chapter contains all information related to medical records and access.

> RCW70.02.080 Patient's examination and copying Requirements. Health Care information conditions.

RCW 70.02.050 Disclosure without patient's authorization—Need-to-know basis. Describes the situations where health care providers may disclose information without patient permission.

## *Washington Administrative Code (WAC)*

WACs are the rules adopted by state agencies that support the implementation of associated RCWs and hold the force of law.

WAC 180-87-070(2) Unauthorized professional practice. Defines unauthorized professional practice as well as exigent circumstances where immediate action is necessary to protect the health, safety, or general welfare of a student, colleague, or other affected person.

WAC 246-840-010 (12) Definitions. Specifically defines "Delegation" as when a licensed nurse transfers the performance of selected nursing tasks to competent individuals in selected situations. The nurse delegating the task is responsible, accountable, and to supervise this care per RCW 18.79.260. Nursing care can only be delegated by the RN.

WAC 246-840-700 Standards of Nursing Conduct or Practice Defines standards for Practical and Registered Nursing including responsibilities, practice settings, conduct, and other legal factors.

WAC 246-760-010(13) Definitions, abbreviations, and acronyms. Provides the legal definition of a school nurse.

WAC 246-840-700 Standards of nursing conduct or practice. Defined.

WAC 246-840-710 Violations of standards of nursing conduct or practice. Defined, includes information related to delegation.

Chapter 296-823 WAC: Occupational exposure to Bloodborne Pathogens. Includes rules around occupational exposure to pathogenic microorganisms present in human blood that can cause disease in humans.

WAC 392-172A-01125 Parent. Defines “parent”.

WAC 392-172A-02085 Homeless children. Lays out the duty of school districts to ensure that the rights of children and youth experiencing homelessness are protected in a manner consistent with the requirements under the federal McKinney-Vento Homeless Assistance Act.

Chapter 392-380 WAC: Public School Pupils – Immunization Requirement and Life-Threatening Health Condition. Includes key definitions related to medical care provided to students in a school setting and written notice prior to exclusions from school.

WAC 392-380-020 Definitions. Definitions of student, life-threatening condition, nursing care plan, exclusion and medication and treatment order. Related to failure to submit medication and treatment order and necessary equipment for a student with a life-threatening condition.

WAC 392-380-045 School attendance conditioned upon presentation of proofs. Defines due process for exclusion related to life-threatening health conditions.

## Pending State Regulations

Substitute Senate Bill (SSB) 5499 Multistate Nurse Licensure Compact was signed by the Governor May 9, 2023. This means that nurses who hold an active multistate license and reside outside of Washington state, will no longer need a separate Washington state nursing license. However as of this writing, this is not yet in effect. See the Washington Nursing Care Quality Assurance Commission for updates on upcoming developments.

# SECTION 3: GUIDANCE – BULLETINS, MEMOS, ADVISORY OPINIONS

National Association of Schools Nurses (NASN) Position Statement: School-sponsored Trips – The Role of the School Nurse

- School sponsored trips are common occurrences in the educational lives of students and may occur within a state, out of state, or internationally. School districts receiving federal funding are legally bound to assure that all students have access to these opportunities (USDE/OCR, 2016), regardless of disability or healthcare needs. NASN supports the school nurse's role as critical in the planning, coordination, and education of staff, families, and students. Providing appropriate care and protecting the needs and rights of ALL students allows for a safe, educational experience for each person participating in these trips.

Office of Superintendent of Public Instruction (OSPI) OSPI is the primary agency charged with overseeing public K–12 education in Washington state.

- OSPI bulletin NO. 61-02 Substitute House Bill (SHB) 2834 Children with Life-threatening Conditions. Engrossed Substitute Senate Bill (ESSB) 6641 Schools-Diabetic Students-9-18-02 School district requirements for managing diabetes and life-threatening conditions at school. Sets out legal expectations for managing students with life-threatening health conditions: health plans and necessary support.

Washington State Nursing Care Quality Assurance Commission (NCQAC)

- The Nursing Care Quality Assurance Commission (NCQAC) regulates and establishes standards for licensed practical nurses, registered nurses, advanced registered nurse practitioners and nursing technicians.

Registered Nurse Delegation in School Settings: Kindergarten–Twelve (K–12) Grades, Public and Private Schools (2022). Washington State Nursing Care Quality Assurance commission Advisory Opinion related to delegation to Unlicensed Assistive Personnel (UAP) for specific tasks. The school RN is to make decisions on a case-by-case basis, using the decision-making process that includes the components of nursing delegation. This advisory includes the Nursing Delegation Decision Tree Tool. School nurses are encouraged to use this tool.

Washington Schools Risk Management Pool (WSRMP) Nursing Standards for Out of State Field Trips (2016) Summary and guidance related to differences in state laws, potential challenges districts face when students travel out of state for school activities with a stress on advance preparation, review of available resources, to help districts address these issues.

Washington State School Nurse Corps (SNC)

- Student Health Services Guidebook (2017)-District Systems to Support School Health Services Guidelines and planning tools for the school administrator and school nurse. Topics covered relate to risk liability and reduction for the school district. It reviews mandated health services, tasks, systems, and policies, and encourages effective use of allocated school nurse time for schools.
- Washington State School Staff Health Training Guide (2022) Health Training Guide provided by the Washington State School Nurse Corps (SNC) includes school staff training requirements for diabetes. Its intended use is to assist school administrators and nurses to comply with health training requirements for school staff.

# SECTION 4: SCHOOL DISTRICT POLICIES AND PROCEDURES

School districts must develop policies and procedures to support the health and safety of students with diabetes per federal and state laws and regulations. WSSDA develops model policies for member school districts. School boards may adopt model policy as is or may amend them to meet the needs of districts.

- Accommodating Students with Diabetes Policy #3415
- Student Immunization and Life-Threatening Conditions Policy #3413
- Medication at School Policy # 3416 (WSSDA 2019)
- Medication at School Procedure #3416P (WSSDA 2021)
- Prohibition of Harassment, Intimidation and Bullying Policy # 3207 (WSSDA 2014-2019)

# SECTION 5: DIABETES MANAGEMENT IN THE SCHOOL SETTING[8]

## Goals of Diabetes Management for School Children and Youth

1. To promote student safety while encouraging participation in all school activities.
2. To promote expected childhood/adolescent growth and development.
3. To promote healthy emotional well-being.
4. To maintain optimal glucose levels.

Diabetes management in the school setting includes the following actions to support students to maintain blood glucose levels in the target range and to prevent hypoglycemia or hyperglycemia.

- Check glucose levels: **blood** glucose through blood glucose meter or **interstitial** glucose through continuous glucose meter continuous glucose monitor (CGM).
- Administer insulin and/or other diabetes medication.
- Follow an individualized meal plan/carbohydrate counting.
- Determine carbohydrate/nutrition content from menus.
- Promote regular physical activity.
- Develop a communication plan including school staff, school nurse, parents/guardians, and students as needed during the school day/school-sponsored activities.
- Plan for disposal of sharp objects and blood-contaminated materials.
- Recognize and treat hypoglycemia (low blood glucose).
- Recognize and treat hyperglycemia (high blood glucose).
- Plan for disasters and emergencies.
- Develop a plan for special events, field trips, and extracurricular activities.
- Provide support for emotional and social issues.
- Support student with transition to independent management for increased safety and preparation for adult life.

**Diabetes care tasks can occur in the classroom or anywhere the student is participating in school related activities to minimize time away from educational opportunities. Students with diabetes must always have access to supplies and equipment for immediate treatment of high and low blood glucose levels.** Provisions must be made for safe disposal of used supplies and access to needed supplies.

## Diabetes Health Care Teams[8]

School health team members work together to implement the medical orders prescribed by the Licensed Health Care Provider along with guidance provided by the school nurse in the Individual Health Plan (IHP). Additionally, the school health team should be involved with the development and implementation of the students' Section 504 Plan. These plans are developed to address students' needs for services to manage diabetes safely and effectively in school, as required under

Section 504 of the Rehabilitation Act of 1973 or the Individuals with Disabilities Education Act (IDEA).

## *Other clinical diabetes team members (such as behavioral)*

Members of the School Health Team

- Student with diabetes
- Parents/guardians
- School nurse
- Other school health care personnel
- Trained diabetes personnel (Parent Designated Adult (PDA), Unlicensed Assistive Personnel (UAP)
- Administrators
- Principal
- 504/IEP coordinator
- Student's teacher(s)
- School psychologist or guidance counselor
- Office staff
- Coach, lunchroom staff, bus driver and other school staff members that support students with health conditions

Members of the Student's Personal Diabetes Healthcare Team

- Student with diabetes
- Parents/guardians
- Parent-designated adult (PDA)
- Medical doctor/Advanced Practice Provider
- Licensed Healthcare Provider (LHCP)
- Registered Nurse (RN), Licensed Practical Nurse (LPN), Advanced Registered Nurse Practitioner (ARNP)
- Registered dietitian nutritionist
- Certified diabetes care and education specialist (CDES)

## *Individualized Health Plan (IHP) and Emergency Care Plan (ECP)*

Any student diagnosed with a life-threatening condition such as diabetes must have an emergency care plan (ECP) completed prior to the student attending school as directed in RCW 28A.210.320. This state law requires all students with life-threatening health conditions to have medication or treatment orders in place prior to attending school. Additionally, a nursing care plan, necessary supplies, and staff training are required.

An ECP may be separate or a part of the IHP; most often the ECP is incorporated into the more comprehensive IHP. The ECP/IHP may also be a 504 plan. These care plans are developed by the school nurse in collaboration with the family and a team of professionals and address the school's overall responsibilities for the provision of a safer school environment. The ECP/IHP is distributed to school staff who have contact with the student. The school nurse trains and supervises school staff regarding their responsibilities under the guidance of the written care plan(s).

Prior to the beginning of every school year, the school nurse reviews the health history forms submitted by parents and obtains any updated information regarding a student's diabetes. The school nurse may request written permission from the parents to communicate with the student's Licensed Health Care Provider (LHCP) if needed. Following the development of the ECP/IHP, parents supply the medications/treatments ordered by the LHCP. If the parents do not provide the appropriate information needed or the prescribed medications/treatments to implement the care plans and orders, the school district may exclude the student from school in accordance with RCW 28A.210.320.

Students who qualify under the federal McKinney-Vento Homeless Assistance Act are protected and must have equal access and immediate enrollment to the same free and appropriate public education as provided to other children and youths, including preschool. School nurses need to work with the district McKinney-Vento Liaison, family, and community resources to ensure that the necessary IHP and ECP, LHCP orders, medications and/or treatments and staff training are in place as soon as possible after enrollment. (OSPI Homeless Education Liaison Contact List)

## Developing Individual and Emergency Care Plans: The Team Approach

Families and students are the experts on their individual student's diabetes while the school nurse is the expert in the school's diabetes management plan at school. To ensure a safe learning environment for the student with diabetes, parents and the student should meet with the school nurse, school officials, school nutrition services, and other school staff as necessary to develop the IHP and/or ECP. This meeting needs to occur prior to the student's attending school, upon returning to school after an absence related to the diagnosis, and any time there are changes in the student's treatment plan.

There are instances in which an LHCP and parent/guardian may request that a student be permitted to carry and self-administer their own medication. Student self-administration of medication is not within the purview of RCW 28A. 210.260 Public and private schools - Administration of Medication - Conditions. However, RCW 28A.210.330(1)(iv), Students with Diabetes has provisions for students to carry on their persons the necessary supplies and equipment and the option to perform monitoring and treatment functions anywhere on school grounds including the students' classrooms, and at school-sponsored events.

The student's self-care ability level should be assessed and documented in the IHP that is signed by the parent/guardian, healthcare provider, and school nurse. Each student's ability to safely carry their own medication and perform self-management of diabetes may vary based on developmental and emotional stages and other factors.

The prudent school nurse will perform periodic checks of skills and general diabetes management with students who are independent. The decision may be made to revoke the student's independent status in collaboration with the student, parents/guardians, and school administrator. Consider the student's abilities in the following areas:

- developmental
- cognitive
- social-emotional-behavioral
- physical maturity and motor skills

The independent student can demonstrate these abilities consistently across multiple school settings. School policy should include the option for students to carry all necessary supplies/equipment to self-monitor and manage treatment anywhere on school grounds and at school sponsored events.

Families of students with diabetes are genuinely concerned about their child's welfare during the school day. Having parents actively involved in the development of the IHP/ECP alleviates many concerns and provides insights into the individual needs of the student. The IHP and/or ECP are integral parts of the overall school policies and procedures for ensuring a safe learning environment for students with diabetes. The IHP/ECP may serve as the 504-accommodation plan as determined by district policy or procedure.

## The following activities are steps for completion of the ECP:

- Obtain a medication authorization form signed by both the parent and LHCP.
- Obtain a signed release of information (ROI) to access information from the student's LHCP, if needed.
- Secure medication and all other necessary treatment supplies from the parent/guardian.
- Districts must provide appropriate, secure, accessible storage for medications and associated supplies. Students may self-carry all diabetes supplies as needed and as indicated on the IHP. Backup medication, if supplied by the parent, should be stored in a secure, designated location.
- Develop disaster preparedness plans to accommodate a minimum of 72 hours without outside access to care.
- If medication and/or treatment orders are included in the plan, there should be written LHCP approval and parent signature to authorize that portion of the care plan.
- A parent and LHCP signature documents review of the IHP/ECP and should be considered by the school nurse.
- Establish a plan for educating all students about diabetes. The classroom teacher(s), school nurse, student, and parents (with permission) should collaborate on the age-appropriate teaching components that fit within Washington State Learning Standards. It is not necessary to identify students with diabetes to provide general training.
- A current picture of the student on the plan may be helpful for quick identification for emergencies.

- The ECP is distributed to all appropriate school staff trained to respond to a student's emergency related to diabetes.
- Staff having direct responsibility for the student must be trained in student-specific procedures.

### *District Communication Plan*

The school district policies and procedures must address a communication plan for the school to follow to gather and appropriately disseminate information on a "need to know" basis regarding students with diabetes. The communication plan must include safeguards to ensure student confidentiality. It is recommended that the school nurse be designated as the lead staff in developing and implementing the communication plan. The plan must include the procedures for disseminating information to substitute school staff. Communication plans should also include a process for activating emergency medical services.

## Emergency Medical Services (EMS/911)

The school district policy and procedural guidelines must address emergency responses identifying:

- When 911 is to be called and by whom.
- Type of medical response needed (Paramedic with IV glucose or glucagon).
- Use of student glucagon.
- Required notification of school administrators, staff, and parents.
- Assigning staff to meet the EMS first responders.
- The need for EMS to transport students to medical care for further observation.
- Documents and information to provide to EMS (i.e., insulin pump in use by student).
- Disposition of used glucagon delivery device if appropriate.
- Follow up paperwork (accident/incident report forms) responsibilities.
- Debriefing procedures.

If Glucagon is administered, EMS (911) must be activated immediately. Parents are notified after Glucagon is administered and 911 is called. Standard practice is to transport the student to a local medical facility regardless of the student's status at the time of EMS arrival.

Incident debriefing should occur among those who implemented the ECP including the school nurse, building and district administration, and risk management. Input may be sought from the parents, the student, the first responders, and the student's LHCP. Debriefing may include a process for quality improvement, support for school staff regarding their role in the event, and evaluation of the outcomes of the response. The ECP must be reviewed and revised, if needed. Subsequent training must then follow to address changes in the ECP.

# Developing A Section 504 Plan: Suggested Accommodations for Students with Diabetes

## *The Law and Diabetes*

Under Section 504 of the Rehabilitation Act of 1973, it is illegal to discriminate against a person with a disability. Children with diabetes must have full access to all activities, services, and benefits provided by public schools. Diabetes is considered a disability under Section 504 because it is a physical impairment that limits one or more major life activity.

Any school receiving federal funds must accommodate the special healthcare needs of its students with disabilities to provide them with a "free appropriate public education." Such accommodations should be documented in an appropriately developed Section 504 plan or, if the child also needs special education services, in an individualized education program (IEP). Parent participation is strongly encouraged, but not required under Section 504. The school district has a legal obligation to ensure that these accommodations are provided as described in the plan.

See procedural safeguards and parent/student rights under Section 504.

# Developing A Section 504 Plan

Eligibility for a Section 504 plan must be determined by a team and based on the individual needs of the student. Generally, most students with diabetes will be eligible for accommodations, aids, and services under Section 504. An individualized health plan (IHP) alone is only appropriate when:

1. The student does not need the district to provide accommodations, aids, or services for the student to access and benefit from their education, or
2. When a student's parent has waived Section 504 services.

There is an important distinction between services provided under Section 504 versus an IHP. A student who receives services under Section 504 is afforded special protections. These protections include procedural safeguards, team-based evaluations and placement decisions, the right to notice and informed consent, and discipline protections. Students with IHPs alone are not afforded these same protections.[8]

Some schools incorporate IHPs into a Section 504 plan to make clear to parents that Section 504 protections apply to services in the IHP. In some cases, districts have separate documents for the IHP and Section 504 Plan, and incorporate the IHP into the 504 by reference, and in some cases, districts include all medical accommodations directly in the Section 504 Plan. This varies from student to student depending on their needs, as well as the particular school district's 504 process.

## What Is a Section 504 Plan?

The term "Section 504 Plan" (Appendix B) refers to a plan developed by a team to meet the requirements of a federal law that prohibits discrimination against people with disabilities, Section 504 of the Rehabilitation Act of 1973 (commonly referred to as "Section 504").

A Section 504 Plan outlines the accommodations, aids, and services the school will provide to ensure the student with diabetes is medically safe, has the same access to education as other children, and is treated fairly. A written plan is often a useful way to document that the school district engaged in a process to identify and address the needs of a student with disabilities and to communicate, to school personnel, the information needed for successful implementation.[8] It is recommended that every student with diabetes have a Section 504 Plan or other written plan, such as an Individualized Health Plan, in place.

## How Do I Make a Section 504 Plan?

The following are guidelines; refer to the school district's 504 policy and procedure when developing a 504 Plan. Additionally, Washington State Office of Superintendent of Public Instruction's *Section 504 and Students with Disabilities* document may be a helpful resource.

Anyone, including a parent or guardian, can refer a student for Section 504 evaluation. Schools also have a special responsibility to make a Section 504 referral for every student they know, or suspect has a disability and may need accommodations, aids, or services.

All Section 504 decisions should be made by the 504 Team. The nurse can be part of the team (and should be, regarding a student with diabetes) but is not the only person responsible for evaluating them and developing an appropriate 504 plan.

During the Section 504 evaluation, the Section 504 team gathers and reviews information from a variety of sources. For example, grades, test scores, attendance, health room visits, parent and student input, teacher observations, diabetes care orders, medical evaluations, and information about who can assist with the student's care. The purpose of the evaluation is to answer two questions:

1. Does the student have a physical or mental impairment which limits one or more major life activities?
2. If so, what accommodations, aids, and services—if any—does the student need to access and benefit from their education? The school must have consent from a parent or guardian before the evaluation begins.

Without consent, a 504 team cannot evaluate a student or continue the 504 processes.

Parents and the student should meet with school staff, including the school nurse, counselor, and others as appropriate, to develop the Section 504 Plan prior to the student attending school. Additional meetings should occur at least annually or upon returning to school after an absence

related to the diagnosis, and any time there are changes in the student's treatment plan. These team meetings will ensure a safe and therapeutic learning environment for the student with diabetes.

The Section 504 team must include someone who knows the student, someone who understands the evaluation data, and someone who understands the options for providing accommodations, aids, and services at the school. The school nurse should be involved in the initial and ongoing discussions since it will be the school nurse who establishes the school treatment, disaster, and emergency action plans. The school nurse also coordinates the nursing care and trains and supervises school staff in the monitoring and treatment of symptoms. A checklist for school nurses to use when preparing for care of a student with diabetes may be found on the OSPI Sample Forms webpage. The school nurse is responsible for consulting and coordinating with the student's parents and healthcare provider to establish a safe, therapeutic learning environment.

**Schools are responsible for ensuring there is an IHP or Section 504 Plan for every student with diabetes.** RCW 28A.210.330 instructs the school district board of directors to adopt policies as a prerequisite condition to providing IHPs or Section 504 Plans for students with diabetes. Refer to Section 4 for sample policy.

The school district board of directors is directed to designate a professional person licensed under Chapter 18.71 RCW Physicians, Chapter 18.57 RCW Osteopathy, Osteopathic Medicine, and Surgery, or Chapter 18.79 RCW - Nursing Care as it applies to RNs and ARNPs to:

- Consult and coordinate with the student's parents and healthcare provider.
- Train and supervise the appropriate school district personnel in proper procedures for care of students with diabetes.

A diabetes educator, who is nationally certified, may also provide the training. However, only the licensed health professional or trained school personnel acting as a PDA may be designated to consult and coordinate with the student's parents and healthcare provider. Only the licensed health professional may supervise the appropriate school district personnel.

In planning for the student with diabetes' 504 plan, the following activities should occur:

1. Establish required district policies as stated in RCW 28A.210.300 through 350. Obtain parent signed release to:
    a. Access information from the student's healthcare provider.
    b. Obtain consent to conduct a Section 504 evaluation.
    c. Secure healthcare provider orders for monitoring and treatment at school.
2. Provide parents with a copy of the district's explanation of parent and student rights.
3. Secure medical equipment and medication.
    a. Parents must provide all supplies.
    b. Districts must provide appropriate, secure storage as needed.
    c. Insulin supplies must be properly temperature controlled.

4. Plan to accommodate the student's potential needs to:
    a. Receive assistance with diabetes care from school staff.
    b. Eat whenever and wherever necessary, including (but not limited to) having food at his or her desk, on the school bus, or at other locations.
    c. Have easy, unrestricted access to water and bathroom use.
    d. Have provisions made for parties at school or on field trips when food is served. For example, carbohydrate intake that is not part of the regular meal plan will need to be covered by extra insulin.
    e. Eat meals and snacks on time and, if requested, be monitored by staff as to whether the student finishes food.
    f. Address other necessary exceptions to district policy as described in the IHP or Section 504 plan.
5. Ensure that school meals are **never** withheld because of nonpayment of fees or disciplinary action.
6. Discuss student's school day schedule for timing of meals, snacks, blood sugar testing, physical education class, etc.
7. Develop disaster preparedness plans.
8. Review need, establish plan, and implement in-service training for staff on symptoms, treatment, and monitoring of students with diabetes and the additional observations that may be needed in certain situations (e.g., at recess or when student is ill) as required by RCW 28A.210.340. This training should include the student and parents, as appropriate, and should be provided by an individual with training in current diabetes management. See the Washington-State-School-Health-Training-Manual-2022.pdf (nwesd.org)
9. Secure legal documents for PDAs to provide care, if needed. See OSPI Sample Forms webpage.
10. Initiate discussion of the "Personnel Guidelines for Care of Students with Diabetes in the School Setting," Section 8. Decisions will be made by a team including someone who knows about the student, someone who understands the evaluation data, and someone who is knowledgeable about placement options. Such decisions may relate to:
    a. Should the student carry his or her own blood glucose monitoring equipment and syringes/insulin pen?
    b. Where/when should the student perform blood glucose testing?
    c. Where/when should the student administer insulin?
    d. Which staff member(s) will provide diabetes care tasks?
    e. When should school staff verify and notify parents, and for what activities (e.g., do parents want to be notified when the student receives treatment for low blood glucose)?
11. Obtain parent and healthcare provider written approval to implement the student's plan of care after the student's IHP or Section 504 plan has been developed. IHP or Section 504 plans and/or Individualized Education Programs (IEPs) require parental notice prior to implementation.

## *Possible Accommodations for Students with Diabetes*

The following is a list of possible Section 504 accommodations for students with diabetes:

1. The school nurse, parents, and student should mutually determine the most appropriate location for blood glucose monitoring and insulin administration. Determining factors may include:
    a. Student age and developmental level.
    b. Student desire for privacy.
    c. Length of time since diagnosis.
    d. Student knowledge of diabetes and degree of independence.
    e. Student ability to demonstrate blood glucose monitoring procedure and insulin administration, correctly, over time.
    f. Awareness of safety issues surrounding needles, lancets, and blood, including proper disposal of waste and storage of diabetes equipment.
    g. **And** any other special circumstances.
2. Students may have permission to do blood sugar monitoring in the classroom. This procedure should take only a few minutes and be undisruptive to the class. Students may also need to check blood glucose on field trips or during special events. Blood sugar monitoring is usually done before meals, per healthcare provider's order.
3. Parents are responsible for supplying snacks for school. Students should have at least one additional snack readily available every day for emergency consumption. Parents should be notified when the emergency snack is consumed if this is part of the student's Individual Health Plan (IHP). If a student has an Individualized Education Plan (IEP) and a meal plan from a licensed medical authority, snacks will be provided after consultation with the food service manager, parents, and healthcare provider.
4. Students need to be allowed to snack when and where necessary (low blood glucose/hypoglycemia) to maintain adequate blood glucose levels. This includes school transportation, in the classroom, gymnasium, all school sponsored events, etc.
5. A student who does not respond to a snack and/or exhibits signs of low blood sugar, needs to be accompanied to the health room, or a call for assistance should be made from the classroom. **DO NOT SEND THE STUDENT ALONE** if he or she is dizzy, sweating, pale, trembling, crying, drowsy, nauseated, has a confirmed low blood glucose, complaining of abdominal pain, blurred vision, headache, and/or displaying out of character behavior.
6. A student with high blood glucose should receive insulin per healthcare provider orders. This may include going to the health room to self-administer insulin or notifying school nurse or PDA to assist with administration. The parent could also be notified to provide care if they chose; this would be on a voluntary basis. The student may be allowed to self-administer insulin in the classroom or health room if this is consistent with the student's IHP or Section 504 plan. The parent and school nurse should consider the student's ability to demonstrate appropriate procedure and disposal of waste when planning for a student to test or self-administer in the classroom. The IHP or Section 504 Plan should include the role (i.e., nurse, coach, teacher, etc.) who are trained diabetes personnel. The amount of classroom disruption is also a consideration. Students wanting privacy, confidentiality, or

supervision should have permission to go to the health room for blood glucose testing or insulin administration.

7. A student must be allowed to drink water or any lightly colored non-carbonated sugar free fluid or beverage in the classroom, as needed, to dilute high blood glucose.
8. A student needs to be allowed extra bathroom privileges as high blood glucose results in increased urine output.
9. Parents should be given at least one day's notice but preferably more, regarding special events such as parties or field days.
10. A student should be included in any extracurricular activities including field trips and overnight activities. District-provided services during such events should be outlined in their IHP or Section 504 plan.
11. Some students may require a service animal. If so, refer to the district's policy and procedure regarding service animals in school.
12. Parents and students may request necessary accommodations for standardized tests such as (but not limited to) K-12 school assessments, college entrance exams, and professional licensing exams. Some examples of accommodations might include bringing diabetes supplies to the test, or extra breaks. Parents should consult with the Section 504 team for guidance.

OSPI's Equity and Civil Rights Office's staff are available to answer any questions about school districts' obligations to students with diabetes under Section 504. Contact ECR at (360) 725-6162 or equity@k12.wa.us.

For more detailed information about Section 504 and students with diabetes, please refer to OSPI's Equity and Civil Rights Office's training handouts:

- Navigating Section 504
- Section 504, Beyond the Basics

### Summary of Plans for Diabetes Management

| Plan | Contents | Prepared by |
|---|---|---|
| **Individual Health Plan (IHP)** | School nursing care plan outlining how diabetes care will be delivered in the school setting per licensed health care provider orders. | School nurse |
| **Emergency Care Plans (ECPs)for Hypoglycemia and Hyperglycemia** | Tool for school staff to aid with recognition and management of hypoglycemia or hyperglycemia and what to do in an emergency. | School nurse |
| **Section 504 Plan, IEP, or other written accommodation plan** | Address individual student's needs for services and the accommodations needed to manage their diabetes safely and effectively in the school setting as required under Section 504, the Americans with Disabilities Act, or the IDEA. | 504 team<br><br>IEP team |

# Glucose Monitoring

An important task of diabetes management is monitoring glucose levels throughout the day using a blood glucose meter (measures blood glucose) or a continuous glucose monitor (CGM) (measures interstitial glucose). Students who use a CGM may also use a blood glucose meter to verify CGM readings, according to their IHP.

All students with type 1 diabetes should monitor glucose levels multiple times a day, including prior to meals and snacks, at bedtime, and as needed for safety in certain situations such as physical activity, driving, or in the presence of low blood glucose (hypoglycemia) symptoms. Glucose monitoring for students with type 2 diabetes should be individualized, considering medication management. Glucose monitoring for students with type 1 and type 2 diabetes should be outlined in the IHP and Section 504 Plan.[8]

If school staff are to monitor CGM glucose readings via a smartphone or tablet, the school district may choose to purchase a phone or tablet for this use. School staff personal cell phones should not be used to monitor a student's CGM readings as they are not FERPA compliant.

## Blood Glucose Monitoring[8]

Blood glucose monitoring is usually performed several times daily. A blood glucose meter, also called a glucometer, is a small portable machine used to check blood glucose levels. A finger stick is performed by pricking the side of a fingertip and applying a drop of blood to the test strip that is inserted into the glucose meter. The meter provides the blood glucose level as a number on its digital display and the result is evaluated and recorded. The blood glucose meter is individual to each student and should not be shared. The lancet should be changed according to the manufacturer's instructions.

The blood glucose level guides treatment decisions and insulin dosage. Alternate finger stick sites (other than fingertips) may be performed with many glucometers. Alternate sites are often less painful than fingertips, but results are not as accurate as fingertip samples.

**IMPORTANT**: only fingertips should be used for glucometer testing if low blood glucose (hypoglycemia) is suspected.

All students with diabetes must be allowed to test and treat anywhere the child may be, including the classroom. Provisions must be made for safe storage of supplies and equipment and planning for safe disposal of used test supplies. See section 6: Plan for Disposal of Sharp Objects and Blood-Contaminated Materials.

**If the student has symptoms that do not match the glucose reading,** have the student wash their hands with soap and warm water, and redo the test. According to the FDA, glucose meters can have a 15 mg/dL error reading.[14] Additionally, sometimes rapidly decreasing blood glucose levels may result in symptoms of hypoglycemia. If a student feels "low" and blood glucose appears

to be within range, retest again in 15 minutes or go ahead and treat the "low", in accordance with orders.

### *Common Problems Causing Inaccurate Blood Glucose Test Results*

1. Finger not cleaned and dried. Hand sanitizer, especially scented, can affect the blood glucose reading. Always wash and dry hands prior to testing!
2. Poor technique, including inadequate blood drop (not enough blood).
3. Meter or lancing device dirty, often with dried blood.
4. Expired or incorrectly stored test strip (affected by hot and cold temperatures or humidity).
5. Code on test strip does not match code on meter.
6. Product malfunction.

**IMPORTANT**: Heat and humidity may affect blood glucose meters and test strips by decreasing the accuracy of blood glucose readings. This is particularly important when blood glucose is checked outside (e.g., during sports practice). Consult the manufacturer's instructions regarding operation and storage of the student's blood glucose meter.

## Continuous Glucose Monitoring (CGM)[8]

Many students use a continuous glucose monitor (CGM), a device that measures interstitial (the glucose found in the fluid between cells) glucose levels and trends throughout the day. The CGM works through a sensor inserted under the skin that measures glucose levels at regular intervals (varies by device) and sends the current equivalent glucose level wirelessly to a monitor.[8,15] The monitor may be part of the insulin pump or a separate device, which may include a smartphone/watch that is carried or worn by the student in a pocket or bag. Accommodations for carrying smartphones/watches or CGM devices should be addressed in the Section 504 Plan.

CGM components:

- **The sensor** – a small fiber-plastic wire inserted under the skin that measures glucose levels and sends information to the transmitter. Sensors are typically changed at home at a consistent frequency, depending on the model of the device.
- **The transmitter** – sends information from the sensor to the monitor/receiver or directly to the student's smartphone/watch, using radio-wave or Bluetooth technology. They have batteries that need to be replaced or re-charged regularly.
- **The receiver**–displays the glucose level as well as trend arrows, graphs, and device information. Receivers may be a separate device or built into the pump. Some receivers also pair via Bluetooth to a student's smartphone/watch, allowing data transmission and remote monitoring. It may be necessary for a student to have access to school WIFI to assist with this as a documented 504 accommodation in the student's IHP/504.

CGM technology is always advancing. Consult manufacturer details to obtain the most accurate and current information regarding the student's device.

## *CGM Management & Responsibilities:*

- CGM alarms may be set for when glucose levels are too high or too low, or when they are increasing or decreasing at a rapid rate. Parents/guardians should be encouraged to set alarms for when action is required (e.g., glucose level of 70 mg/dl or 250 mg/dl).[8]
- Never ignore a CGM alarm. Appropriate action should be taken in accordance with the student's IHP. The school nurse or PDA should respond to high and low alarms rather than the constantly fluctuating trends and numbers.
- **Data Sharing:** Certain CGMs can transmit data remotely to several devices at the same time via smartphone/watch technology. Students using the data-sharing feature of their CGMs may request access to the school's wireless network to enable this feature while avoiding smart device cellular data charges. The school nurse, trained diabetes personnel, the health care providers as well as parents/guardians may have remote access to the student's CGM data and alarms in real time.
- **School staff CGM responsibilities**: School staff are responsible for keeping all students safe in the school setting. School personnel do not have the capacity to support individual requests for frequent glucose pattern management techniques.
- Diabetes care at school will be provided in accordance with the regimen prescribed in the student's IHP.

## *Monitoring CGM Readings*

The purpose of trending arrows on the CGM is to monitor for upcoming changes in glucose levels (either high or low) so treatment can be anticipated. It is not therapeutically appropriate to respond to every change in trend arrows. *The shared goal is the safety of the child and as close to a normal school experience as is possible, with minimal interruptions that set the student apart from peers.* Forming a collaborative relationship between the parent/guardian, diabetes care provider, and school staff that centers on the goals of student safety and educational access during the creation of the IHP/504 is key.

**Staff personal phones and other devices must not be used to monitor student health data of any kind.** While parents/guardians are responsible for providing supplies for care of students at school, districts may provide school staff electronic devices for the purpose of intermittent CGM monitoring.

## *Non-Adjunctive Insulin Dosing & Calibration*

- Most CGM devices have been FDA-approved for "non-adjunctive insulin dosing." See manufacturer details.
- A **non-adjunctive CGM** means that the CGM blood glucose level can be used to make treatment decisions without the need for a fingerstick blood glucose measurement to confirm testing results.
- An **adjunctive CGM** means that the glucose level on the CGM needs to be verified with a glucometer prior to making treatment decisions.
- Some CGMs need to be calibrated (see manufacturer details) using a glucometer (finger stick) when blood glucose levels are stable, approximately 2-3 times per day, typically

before meals and not after meals or if prompted by CGM. This should be done outside of school.
- Parents/guardians and/or independent students are responsible for changing the sensor/site.
- **Given the growing diversity of available CGM and glucose sensors, the student's IHP must always be consulted prior to using CGM or sensor data to make treatment decisions.** Even if a student is using a device approved by the FDA for treatment decisions, they may not have permission from the prescriber to do so.

### *CGM and Hypoglycemia (Low Blood Glucose)*

- The IHP will specify CGM alarm levels for each student.
- If hypoglycemia is noted on CGM or if the student has symptoms that do not match the CGM reading, check glucose level with a blood glucose meter (finger stick).
- Following treatment for low glucose, the improvement in glucose levels may not immediately be visible by CGM due to sensor lag times and rapidly changing glucose levels. To avoid over-treating lows, check a finger stick again before treating a second time if the CGM reading continues to appear low, following the IHP.
- If any student with a CGM exhibits symptoms of hypoglycemia and a blood glucose meter is not readily available for confirmation of the glucose level, the priority should be to TREAT the low glucose level per the IHP.

## CGM versus Blood Glucose Monitoring

While blood glucose monitoring provides the most accurate glucose level at a given moment, CGM is beneficial as it shows glucose trends by providing both the current glucose level and changes in glucose levels over time. **CGM interstitial glucose readings tend to lag about 5–10 minutes behind blood glucose readings**.[16]

# Target Glucose Range[8]

Blood glucose levels should be checked whenever low or high blood glucose is suspected.

The target glucose range for each student should be indicated in their IHP by their LHCP. Frequent glucose levels outside of the target range can impact school performance and absenteeism. The school nurse should ask the parent/guardian to contact the student's LHCP if the student is below or above target range at the same time of day for more than two hypoglycemic episodes **OR** three hyperglycemic episodes for three or more days per week, or as advised in the IHP.

**The ADA recommends notification to parents/guardians for the following glucose range:[8]**
**Low < target range** and **High > 250 mg/dl** unless otherwise indicated in the IHP.

## Checking Blood Glucose Levels at School[8]

The student's diabetes health care team and parent/guardian may request blood glucose or CGM checks at various times during the school day. The student's IHP should specify scheduled times to check glucose levels, including before snacks and meals, before and after physical activity, or when there are symptoms of hypoglycemia (low blood glucose) or hyperglycemia (high blood glucose). Some students may maintain a record of blood glucose results in their blood glucose meter or in a smartphone or notebook. In some students, symptoms may be subtle.

**IMPORTANT: ALL students may need assistance when experiencing low blood glucose levels.**

Students must be able to check their blood glucose levels and respond to levels that are too high or too low as quickly as possible. This reduces the risk of complications such as seizure or coma, reduces the time spent out of class, promotes independence in diabetes management, and promotes better glucose management. It is therefore recommended to permit students to check blood glucose levels and respond to the results in the classroom or any school location.

# Insulin Administration and Types of Insulin

Insulin is an essential hormone that helps regulate glucose levels. Students with type 1 diabetes—and some students with type 2 diabetes—need to administer or be given insulin at various times throughout the school day to manage blood glucose levels.

Students may need to take insulin to cover meals and/or snacks and may need corrective insulin doses to treat hyperglycemia as specified in the IHP. It is medically important that the student be permitted to self-administer insulin in the classroom or wherever they happen to be if independent in their care.

Different types of insulin work for different lengths of time. The IHP will specify the dose, delivery system, and schedule for insulin administration. The IHP will also specify who will administer the prescribed insulin and under what circumstances. See OSPI Sample Forms webpage.

Adjustments in the daily dosage amount of insulin may be made in consultation with the parent/guardian **only if the recommendations are within the ranges specified on the LHCP's written order for the correction factor and insulin to carb ratio**. The healthcare provider must also clearly state that parents/guardians may be consulted for daily dosage adjustments. **Parents/guardians may not order treatments or changes to the treatment plan independently as they are not authorized prescribers**.

Insulin administration may be necessary outside of the pre-meal testing and injection. Accommodations for the student experiencing hyperglycemia may include unlimited access to the bathroom, fluids, and exercise restrictions. See section 6: High Blood Glucose.

## Insulin Action 17–19

Always refer to insulin manufacturer's instructions for use and safety, and the student's IHP for more information.

Intranasal insulin (Afrezza) starts to work in 5–10 minutes, peaks in 5–10 minutes, and lasts 1.5–3 hours. **Intranasal insulin is not approved for use in children 18 years and younger.**

**Ultra rapid-acting insulin:**

- Lyumiev starts to work in 15–17 minutes, peaks in 1 hour, and lasts 6 hours.
- Fiasp starts to work in 15–20 minutes, peaks in 15–20 minutes, and lasts 5–7 hours.

**Rapid-acting insulin:**

- (Humalog, Novolog, Apidr) starts to work in 4–20 minutes, peaks in 1–2 hours, and lasts 2–4 hours.

**Regular/short-acting:**

- Insulin starts to work in 30 minutes, peaks at 2–3 hours, and lasts 3–6 hours.
- Intermediate-acting insulin (intermediate acting NPH) starts to work in 2–4 hours, peaks at 4–2 hours, and lasts 12–18 hours.

**Long-acting/basal insulin:**

- Lantus starts to work in 2 hours, peaks at 2 hours, and lasts 18–24 hours.
- Levemir starts to work in 1 hour, peaks at 3-14 hours, and lasts 18–24 hours.

**Ultra long-acting insulin**:

- Toujeo starts to work in 6 hours, does not have a peak, and lasts 36 hours or longer.
- Tresiba starts to work in 1 hour, does not have a peak, and lasts up to 42 hours.

## Key Insulin Administration Points

1. All insulins lower blood glucose—onset, peak, action, and duration—are different.
    a. Consult the manufacturer's guidelines.
2. In the school setting, rapid-acting insulin should be given about 5–15 minutes prior to lunchtime unless otherwise indicated on provider orders/IHP. Since it is difficult to determine the exact time when the child will eat their meal, rapid-acting insulin is NOT given earlier than 10–15 minutes to avoid an episode of hypoglycemia. Ultra rapid-acting insulins should be administered immediately prior to the meal/snack.
3. For students with an insulin pump, a pre-meal insulin injection or bolus dose may be needed based on the individual's insulin prescription. A LHCP's written order stating the correction factor and insulin to carbohydrate ratio ranges for the amount and type of insulin to be administered is required.
4. Refer to student's individualized orders/IHP for snack dosing.
5. Most students are on a correction factor and insulin-to-carbohydrate ratio (I:C) that allows the dosage of rapid-acting or regular (short-acting) insulin to be adjusted according to the blood glucose level and carbohydrate intake. See "Healthcare Provider Orders for Students with Diabetes." See OSPI Sample Forms webpage.

6. Parents/guardians are instructed not to mix long-acting insulin with short-acting insulin using the same syringe. A separate, new syringe is needed for each type of insulin.
7. **It is important to wait a minimum amount of time after the last dose of short acting insulin before administering a correction dose of insulin according to LHCP orders and IHP.**[20] If the student just ate and their blood glucose is high, hold off on a correction dose until their mealtime insulin is out of their system, generally 2–3 hours. Likewise, if the student's blood glucose is still high after a correction dose, injecting another dose too soon after a previous dose can result in "stacking" of the insulin doses. This can lead to dangerously low blood glucose. Always refer to the student's IHP or Section 504 Plan for directions.
8. Adjustments in the daily dosage of insulin can be made in consultation with the parent/guardian if the parent/guardian's recommendations are within a range prescribed by the LHCP. The LHCP must clearly state that the parent/guardian may be consulted for daily dosage adjustments. Parents/guardians should notify the school nurse/PDA with any changes in insulin dosing so the IHP may be updated per LHCP orders.

## Insulin Delivery Methods[8]

The most common ways to administer insulin are with a syringe, insulin pen, or an insulin pump. See manufacturer websites for more details.

**Insulin syringe:** Available in several sizes, makes it easy to draw up the proper dosage. Shorter and smaller needles make injections easy to administer with minimal pain.

**Insulin pen:** Contains a pre-filled cartridge of insulin. Convenient and appropriate when students need a single type of insulin. During the school day, pens are used most often with rapid-acting insulin to cover a meal or to treat a high blood glucose level. Insulin pens, if used properly, can be easier to handle, faster to use, produce less waste, and present less potential for error.

Insulin pen general user instructions:

- Clean injection site and let dry.
- Clean the rubber stopper of the pen prior to use and let it dry.
- Screw the needle onto the tip of the pen prior to use.
- Dial the pen to 2 units.
- Hold the pen upright and press the button on the pen to release the air and fill the needle with insulin. Repeat if needed until a drop of insulin appears.
- Dial the pen to the prescribed dose and inject the insulin.
- Remove the pen needle and dispose of it in a sharp's container.
- The needle must be changed for every injection.

**i-Port:** A device with a soft, flexible cannula inserted under the skin that is used to assist with insulin delivery via a syringe that directly injects the insulin into the "port" of the i-Port.

**InPen:** A "smart" insulin pen system that combines a reusable Bluetooth-enabled insulin pen with a mobile app that helps to deliver the appropriate amount of insulin for meals and corrections based

on health care provider recommendations. It is compatible with Fiasp, NovoLog, and Humalog cartridges. The app also syncs with some CGMs and blood glucose meters.

**Pen caps:** The "smart" insulin pen cap fits on most available disposable insulin pens and uses glucose data from the Freestyle Libre 2 CGM to provide insulin dosing recommendations that have been obtained from the diabetes health care team. After scanning the libre, the glucose level is sent to the smart pen cap, which uses the data to recommend an insulin dose that it displays on the pen cap.

**Intranasal insulin:** At the time of this writing, Intranasal insulin spray **has not yet been FDA approved for children 18 years and younger.** It is also contraindicated for use by anyone with lung disease, such as asthma or congestive obstructive pulmonary disease (COPD) or those who smoke or vape.

**Insulin pump:** A small, computerized device that is programmed to send small, steady doses of rapid-acting insulin into the bloodstream throughout the day. Additional doses are given to cover food intake and to lower high blood glucose levels as needed. An insulin pump replaces multiple daily injections, and the pump site is changed every few days as directed by the healthcare provider. Routine pump site changes should be done by the parent/guardian at home when possible. Most pumps now receive glucose values directly from the meter, but if not, the student must enter the glucose value so the pump may calculate the bolus dose.

## *Types of Insulin Pumps*

School personnel should be trained on each student's insulin pump by contacting the pump manufacturer or the student's diabetes health care team. Parents/guardians should also supply a pump manual.

- **Some pumps look like a pager**: Students typically wear it on their waistband or in their pocket. The pump holds a reservoir of insulin attached to an infusion set that leaves a small needle or plastic cannula (tiny tube) under the skin. Infusion sets are initiated with a guide needle, then the needle is removed while the cannula is left in place and secured with dressing. Routine site changes are the responsibility of the family and are typically done at home.
- **Some pumps look like a pod or a patch**: These pumps are attached directly to the skin, as the guide needle automatically inserts the cannula under the skin. The student typically wears the pod on their abdomen, leg, arm, or buttocks. The pod contains the insulin (there is no tubing). This pod-shaped pump is controlled by a small hand-held device also known as Personal Diabetes Manager (PDM).
- **Some pumps display data from continuous glucose monitoring (CGM) on the pump screen**: In certain pumps, technology permits communication between the insulin pump and the CGM, enabling the pump to rely on CGM information to reduce or stop insulin delivery if a low glucose level is anticipated. Many CGM have transmitters that display blood glucose values on tablets, smartphones/watches, and computers.
- If a student uses CGM, verify a low glucose level with a finger stick. Treat the student for low glucose (hypoglycemia) if needed.

- **If any pump fails + unexpected high glucose** (hyperglycemia) is not decreasing with insulin:
    - The site should be changed. Until the site is changed, insulin may need to be administered via injection.
    - Remember – the student can develop Diabetic Ketoacidosis (DKA) quickly if the pump fails!

## *Hybrid Closed-Loop Insulin Delivery Systems*[8,21-23]

Hybrid closed loop (HCL) systems use interstitial glucose sensors, insulin pumps, and sophisticated algorithms that provide automated insulin delivery. The goals of hybrid closed-loop systems are to maintain glucose levels within a target range and minimize hypoglycemia and hyperglycemia using a computerized algorithm to adjust the basal rate of insulin and administer corrective bolus doses. They are called "hybrid" systems as, unlike a fully closed-loop system, manual input of carbohydrate amounts is still necessary prior to eating meals/snacks. These devices also use different delivery modes to reduce risk for highs and lows during sleep and activity.

**FDA-approved examples***: Tandem, Omnipod 5, Medtronic, **Technology is continuously being updated; this may not be an inclusive list.*

**3 parts:**

1. Continuous glucose monitor (CGM)
2. Algorithm that calculates insulin doses
3. Insulin pump

**How it works:**

1. The algorithms are always trying to get to a "target" glucose level, which varies by device.
2. The algorithm receives sensor glucose level every 5 minutes and adjusts insulin:
    a. Above target = gives more insulin (basal or bolus)
    b. At or near target = continues the usual basal insulin profile
    c. Below target = turns off basal insulin

**Hybrid closed-loop system benefits:**

1. Levels out highs and lows.
2. Increases time in range.
3. Lowers A1c levels.
4. Needs fewer carbohydrates for hypoglycemia.

**Tips:**

1. Hybrid-closed loop systems all have a feature designed to minimize hypoglycemia (e.g., with exercise and activities). It is safe and appropriate to use this feature in the school setting.
2. More than one click is needed to confirm a bolus dose.
3. "Auto mode" may fail due to:
    a. CGM expired, removed, too far from the pump, etc.

    b. Pump manually turned "off."
4. If "auto mode" fails yet the pump is working:
    a. It will still deliver basal insulin like a normal pump.
    b. You can still bolus like a normal pump.
5. **If any pump fails + unexpected high glucose** (hyperglycemia) is not decreasing with insulin:
    a. The site should be changed. Until the site is changed, insulin may need to be administered via injection.
    b. Remember – the student can develop Diabetic Ketoacidosis (DKA) quickly if the pump fails.

### *Adaptive Closed-Loop Systems*

The FDA approved a new adaptive closed-loop system for individuals 6 years or older in May 2023, the Beta Bionics iLet Bionic Pancreas, as these guidelines were being updated. This automated insulin dosing (AID) system uses an algorithm to determine and command insulin delivery without entering carbohydrates counts.

## Do-It-Yourself (DIY) Automated Insulin Delivery (AID) Systems

Do-It-Yourself (DIY) Automated Insulin Delivery systems (AID) or DIY Looping are considered open-source systems and have become more commonly used in the diabetes community; **However, they are not FDA approved nor part of this guide**. School districts cannot accept requests or orders for use of these systems by students while attending school or any school sponsored events. Requests for the use of DIY devices at school should be directed to the school nurse who will consult with the provider and family.

## Insulin Plans

Insulin therapy plans are developed to meet the individual student's insulin needs as well as the student's ability to understand and follow the prescribed plan. Two common plans are the basal/bolus insulin plan and the fixed dose insulin therapy plan.

### *Basal/Bolus Insulin Plan (Adjustable Insulin Therapy)*

Most students with type 1 diabetes use a basal/bolus insulin plan. This type of insulin plan, which is sometimes called adjustable insulin therapy, mimics the way a normally functioning pancreas produces insulin.

A coordinated combination of different types of insulin is used to achieve target blood glucose levels with food intake, during periods of physical activity, and through the night.

- **Basal insulin: intermediate-acting or long-acting insulin** that is delivered once or twice a day (through injection or pump) and is used to manage blood glucose levels overnight and between meals.
- **Bolus insulin: a dose of ultra rapid-acting, rapid-acting, or short-acting insulin** that is given (through injection or pump) to cover the carbohydrates from a meal or snack and to lower blood glucose levels that are above target.

Students using a basal/bolus insulin plan need multiple injections during the school day. Students using an insulin pump will receive their insulin continuously during the day at a basal rate and then provide boluses with meals and/or for correction of blood glucose levels above target.

**Insulin Bolus administration:**

- The pump calculator should be used for insulin boluses.
- All blood glucose values and carbohydrate grams (except those used to treat hypoglycemia) must be entered into the pump for delivery of pump-recommended boluses.
- Parents/guardians are responsible for ensuring all pump settings align with the IHP/healthcare provider orders.
- The pump bolus calculator rarely should be overridden (e.g., in dosing changes). Encourage parents/guardians to follow-up with their LHCP for insulin pump dose adjustments if frequent overrides are requested.

If the pump calculator is not working refer to the student's IHP for the LHCP direction. If the IHP does not include this direction, the school nurse may contact the LHCP for a one-time order for insulin dosing or correction if the carb ratio/correction factor dosing is not provided in the IHP/LHCP orders.

### *Fixed Dose Insulin Therapy*

Other students may take the same doses of insulin each day. This type of plan is sometimes referred to as fixed dose insulin therapy and generally requires fixed carbohydrate intake.

# Insulin Management in The School Setting

## Student Insulin Self-Management

- Students' level of independence or dependence in monitoring blood glucose and administering insulin is determined by the school nurse with input from the student's LHCP and parent/guardian.
    - Districts may also require approval by members of the student's diabetes health care team.
- The nurse should reassess student self-management at regular intervals throughout the school year and may be adjusted as needed.
- The goal should be to work toward student independence in diabetes management.

## Insulin Pump Management

- The school nurse/PDA must be informed that the student is wearing a pump.
- Pump information must be included in the student's IHP or Section 504 Plan.
- Designated Unlicensed Assistive Personnel (UAP) may not assist with the pump; however, they may **verify** the number shown on the screen of the insulin pump under the instruction and supervision of the nurse.

### *Insulin Pump with Low Blood Glucose (hypoglycemia).*

This should be specified in the IHP or Section 504 Plan**:**

Parents/guardians should ensure the nurse/PDA is comfortable and knowledgeable about the student's pump and how to disconnect or inactivate it if severe low blood glucose occurs.

- In situations of severe hypoglycemia where a school nurse or PDA is not available, the pump should be left intact and 911 should be called. Alert the EMT that an insulin pump is in use.

### *Pump Malfunction/Extended Disconnection*

- Insulin pumps only use rapid-acting insulin, so students with insulin pumps will not be taking any long-acting insulin. Therefore, a pump malfunction or extended disconnection (>2 hours) from the pump increases the student's risk of developing diabetic ketoacidosis (DKA).
- If the insulin pump fails or malfunctions, the nurse/PDA must call the parents/guardians or LHCP. Refer to the IHP/LHCP orders for the correction dose.
- Due to the infrequency of changing sites and the school nurse's limited ability to maintain expertise in insertion of pump infusion sets/CGM sensors, insulin may be given by injection if pump site fails, and the blood glucose meter will be used if the CGM fails. The school nurse and PDA must maintain competency in insulin administration via syringe or pen.
- Parents/guardians of students with pumps should provide the school with the needed backup supplies in the event of a pump / CGM site failure. This could include syringes, insulin pens, rapid-acting insulin, spare pump site, or spare CGM sensor. The supplies should be discussed with parents/guardians, school nurse, and student if applicable. Supplies should be stored in a secure location.

## Insulin Storage

The shelf life of insulin after opening varies according to the type of insulin, the type of container (vial or pen cartridge), and how insulin is administered (through a syringe, a pen, or a pump). Review the product storage instructions on the manufacturer's package insert and check the expiration date.

Refrigerators used for insulin storage require documentation of temperature monitoring. It is recommended that refrigerator temperatures be monitored and logged daily to detect and address any potential temperature excursions which may degrade insulin. Electronic refrigerator monitors exist that automate this quality assurance measure. School nurses may also want to consider sending insulin home over long school breaks.

### *Unopened insulin*

- Unopened vials or pen cartridges should be stored in a refrigerator (between 36°F and

46°F). Do NOT freeze insulin.
- To avoid discomfort, insulin should be at room temperature prior to injection.
- Insulin vials and pen cartridges may be used until their expiration date and then must be discarded.

## *Opened insulin*

- Always label the insulin vial or pen with the date it was first opened.
- Most opened vials of insulin may be left at room temperature (below 86°F) for 28 days and then discarded.
- Most opened disposable pens or pen cartridges may be left at room temperature for 28 days or less, depending on the type of insulin and the type of pen/cartridge.
- If the insulin is exposed to heat (such as direct sunlight or a very warm room), its potency may be diminished.
- While not FDA approved for children under age 18, opened packages (punctured foil) of intranasal insulin should be stored at room temperature and used within 3 days. Intranasal insulin should never be put back into the refrigerator after being stored at room temperature.

# SECTION 6: DIABETES SUPPLIES, TREATMENT, AND TECHNOLOGY

## Diabetes Supplies

### Insulin Supply Responsibilities

It is the parents'/guardians' responsibility to provide and assure current insulin supplies. Families and guardians should work with their insurance provider to acquire the supplies necessary for their child. For supplies not covered by insurance, families should talk with their child's school nurse and licensed healthcare provider to find out about resources that may be available in the community.

The following is a list of typical supplies:[24]

**Insulin**

- Insulin vial(s)
- Insulin syringes
- Alcohol wipes
- Insulin pen(s) with cartridge loaded
- Extra insulin pen cartridges
- Pen needles

**Insulin Pump**

- Blood glucose meter, test strips, and manufacturer's instructions*
- Lancets
- Insulin syringes or insulin pen
- Insulin vial or cartridge
- Pump cartridge, reservoir
- Alcohol wipes
- Pump batteries/charger
- Glucagon emergency kit
- Pump resources such as manual, DVD, alarm card
- Spare pump infusion set and inserter, if used (usually site changes will happen at home, but in certain emergency situations, it may need to happen at school. 504 teams should discuss the plan if a site change needs to happen at school.)

**Blood Glucose Monitoring**

- Blood glucose meter and manufacturer's instructions*
- Test strips (with code information, if needed)
- Lancets

**Continuous Glucose Monitoring**

- CGM sensor(s)
- Alcohol wipes for cleansing skin and transmitter.
- Tape, dressings, or additional adhesives needed to secure CGM sensor

- Adhesive remover for removal of sensor if necessary

**Food**

- Snack foods
- Low blood glucose (hypoglycemia) supplies: glucose tablets/gel, juice, and carbohydrate/protein snack.
- If the student gets free or reduced lunch, families should work with the food service manager at the school to plan and supply meals that meet the student's needs. A diet or meal plan from a licensed medical authority is required if individualized dietary needs are required. It must identify specific foods and portion sizes and/or carbohydrate counts.

**Ketone Testing**

- Blood ketone strips and meter (if ordered)
- Urine ketone test strips
- Urine hat for collecting urine sample

**Lockdown, Disaster, Emergency Preparedness/72-hour Readiness**
**(See Section 7)**

- For the purposes of disaster and emergencies, parents/guardians should provide a three-day supply of the following at the beginning of the school year:
- Blood glucose meter (with instructions), test strips, and meter batteries
- Lancets
- Blood or urine ketone strips and meter
- Insulin
- Insulin syringes or pens
- Alcohol wipes
- Small logbook to record insulin dose and blood glucose results
- Insulin pump and CGM information (if applicable)
- Other medications
- Hypoglycemia treatment supplies: quick-acting glucose and carbohydrate snacks, such as juice, regular soda, candy, and glucose tabs/gel
- Sufficient water for 72 hours (about 3 days)
- Carbohydrate- and protein containing snacks, such as whole grain crackers, dried fruit, granola bars, protein bars
- Glucagon emergency kit
- Schools are generally prepared for inclement weather with food for one or two meals on hand. If a student needs specialized food, their parents/guardians should work with the healthcare provider and/or dietitian and the food service manager to plan for emergency situations.

* Parents/guardians are responsible for periodic quality control testing of the glucose meter and strips and for providing meter manufacturer's operating instructions.
Diabetes supplies should be replaced during winter break. Supplies should be kept at room temperature (especially meter and testing strips) as extreme heat or cold may impair function. For more information about disaster and emergency preparedness, see Section 5.

### *Plan For Disposal of Sharp Objects and Blood-Contaminated Materials*[8]

The school health team should comply with district policy and procedures for bloodborne pathogens when handling and disposing of sharp objects and blood-contaminated materials. Each district is required to have an Exposure Control Plan that identifies the safeguards for handling blood and body fluids per the Occupational Safety & Health Administration's (OSHA) Bloodborne Pathogen Standard (29 CFR 1910.1030) and WAC 296-823-11010. The Exposure Control Plan should be included in the training of the school health team and consist of universal precautions and should be consistent with standard precautions and local waste disposal laws.

Sharp objects (sharps) such as lancets and needles may be disposed of in a container made of heavy-duty plastic or metal with a tight-fitting lid, typically located in the health room and a student's classroom at school. Some students may have a personal sharps container or may leave the lancet in the lancet device and take it home for disposal. Test strips are not considered regulated waste if no one other than the student handles them. Used blood glucose test strips and other materials may be discarded in the regular trash. Check with the local health department about health and safety requirements in your area.

## Low Blood Glucose (Hypoglycemia)[8]

The following are general guidelines. Always refer to and follow the student's IHP, Section 504 Plan, and Emergency Care Plan (ECP) for hypoglycemia.

The student's IHP should be used to develop the student's Emergency Care Plan (ECP) for Hypoglycemia. The Emergency Care Plans (ECP) for Hypoglycemia and Hyperglycemia should be provided to all school personnel who have responsibility for the student with diabetes during the school day.

**Hypoglycemia is the greatest immediate danger to students with diabetes.** Hypoglycemia occurs when a student's blood glucose level falls too low. It may occur suddenly and require immediate treatment. If it is not treated quickly, hypoglycemia can lead to loss of consciousness, seizures, and may be life-threatening.

For most students, a blood glucose level of 70 mg/dL or less is considered hypoglycemia. Hypoglycemia may impair a student's attention, mood, cognitive abilities, and academic performance, and may be mistaken for misbehavior.

### Causes Of Hypoglycemia*:

- Skipped or delayed meals/snacks
- Too much insulin
- Not eating enough food (carbohydrates)
- Getting extra, intense, or unplanned physical activity
- Being ill, particularly with gastrointestinal illness
- A planned or unplanned activity without additional food

**Consult IHP and parent/guardian for other known causes.*

**Early recognition of hypoglycemia symptoms and rapid treatment in accordance with the student's IHP are essential to prevent the onset of severe symptoms.**

## Hypoglycemia Signs & Symptoms

**MILD to MODERATE**

- Shakiness
- Dizziness
- Lightheadedness
- Sweating
- Hunger or nausea
- Pallor (looking pale)
- Fast or irregular heartbeat
- Confusion
- Disorientation
- Loss of coordination
- Weakness, fatigue
- Headache
- Behavior change
- Personality change
- Argumentativeness
- Combativeness
- Difficulty concentrating
- Blurry vision
- Slurred speech
- Seizures
- Irritability or anxiety

**SEVERE**

- Seizures
- Coma
- Loss of consciousness

Symptoms of hypoglycemia may be different for each student or episode of hypoglycemia. Not all students (especially young students) will recognize when their blood glucose is low. Some may not experience early physical warning signs such as shakiness or sweating and may only experience a sudden behavior change. Some may not feel "low" until blood glucose is dangerously low.

**When in doubt, ALWAYS treat for hypoglycemia.**

**ALL school personnel should be able to recognize hypoglycemia symptoms and know what action to take if they observe its onset. Symptoms will progress if not treated immediately.**

**Treatment should NEVER be withheld if the student is symptomatic and glucose testing is not available**. If there is ever a doubt that the student is experiencing low blood glucose (hypoglycemia) symptoms, treatment should be given immediately.

**Students with diabetes should be treated immediately and wherever they are if exhibiting symptoms of hypoglycemia or if blood glucose is below target range. A student experiencing hypoglycemia should NEVER be**:

- left alone
- sent anywhere alone
- sent with another student

If the student needs to go to the health office, they should be accompanied by an adult staff member.

## Treatment For Mild to Moderate Hypoglycemia (With/Without Pump)

Consult the student's Individual Health Plan (IHP), Section 504 Plan, and Emergency Care Plan (ECP) for Hypoglycemia for the specific treatment plan.

All school personnel responsible for the student with diabetes should receive a copy of the Emergency Care Plan for Hypoglycemia and be prepared to recognize and respond to the signs and symptoms of hypoglycemia.

This checklist provides a general approach to the treatment of mild to moderate hypoglycemia.

**Mild to Moderate Hypoglycemia Treatment Checklist[8]**

The amount of carbohydrates used to treat mild-moderate hypoglycemia is based on the student's sensitivity to carbohydrates and may be specified in the student's IHP, Section 504 Plan, and Emergency Care Plan for Hypoglycemia.

1. As soon as symptoms are noted, notify the school nurse or Parent Designated Adult (PDA), and check the student's blood glucose level (if possible).
2. If the blood glucose level is below the level in the IHP (usually 70–80 mg/dL), **or** if the student is symptomatic, give the student a quick-acting glucose product equal to 7–15 grams of carbohydrate (or the amount specified in the IHP).

    a. 2–4 glucose tablets or 1 tube of glucose gel or
    b. 2–4 ounces of fruit juice (not low-calorie or reduced-sugar) or
    c. 2–6 ounces (half a can) of regular soda (not low-calorie or reduced-sugar)

    Moderate symptoms: slurred speech, loss of coordination, or combativeness, give 15 grams of glucose gel between the cheek and gum.

**IMPORTANT: Do not give insulin for these carbohydrates.**

1. Wait 15 minutes, then recheck the blood glucose level. If using a CGM, they may need to be rechecked in 15 minutes and may return to class prior to recheck when trend arrows are pointing up and they are not symptomatic.
2. Repeat the steps above if the blood glucose level is below the level indicated in the IHP.
3. Contact the student's parents/guardians as indicated in the IHP.
4. Once blood glucose returns to normal per the student's IHP, check the blood glucose level in 1 hour if it will be >1 hour until the next meal or per IHP or Section 504 Plan. Follow with a small 10–15-gram snack of complex carbohydrate and protein (e.g., whole grain crackers and cheese, graham crackers and nut or seed butter, granola bar, yogurt, fruit, and cheese). Do not give insulin for these extra carbohydrates unless indicated in the IHP.
5. Depending on blood glucose level, students may not be able to be transported on the bus. See specifications in the Emergency Care Plan for Hypoglycemia.

## Treatment For Severe Hypoglycemia (With/Without Pump)

**Severe hypoglycemia is life-threatening but can be prevented with prompt treatment of mild to moderate symptoms of low blood glucose.** When hypoglycemia symptoms are severe, the school nurse or trained school diabetes personnel must be notified and must respond immediately. School personnel should never attempt to put anything (food, drink, etc.) in the mouth of an unresponsive student with severe hypoglycemia because it may cause choking.

**Severe hypoglycemia is treated by administering glucagon by injection or intranasal spray.** Glucagon is a hormone that raises blood glucose levels by causing the release of glycogen, a form of stored carbohydrate, from the liver. **Glucagon is a life-saving treatment that cannot harm a student.**

The school nurse and/or trained school diabetes personnel must:

- know where the student's glucagon emergency kit is stored,
- be able to always access it, and
- be familiar with the glucagon instructions before an emergency arises.
- Injectable Glucagon may only be given by the school nurse, PDA, parent/guardian, or paramedics in the school setting.
- Intranasal glucagon may be administered by Unlicensed Assistive Personnel (UAPs) following delegation by the school nurse (RN).

Glucagon may cause nausea and vomiting when the student regains consciousness.

| Severe Hypoglycemia Treatment Checklist |
| --- |
| **Severe hypoglycemia is life-threatening, can progress rapidly, and requires immediate intervention.**<br><br>If the student is experiencing loss of consciousness, seizures, or is unable to swallow:<br><br>• position the student on their side to prevent choking as vomiting is common.<br>• Contact the school nurse or trained diabetes personnel immediately.<br>• Do NOT attempt to give anything by mouth.<br>• The appropriate staff must administer glucagon, as indicated in the student's IHP.<br>• Call 911 (Emergency Medical Services).<br>• Contact the student's parents/guardians.<br>• Remain with the student until Emergency Medical Services arrive. Notify the student's personal diabetes health care team.<br><br>If administration of glucagon is not authorized by the student's IHP, or if it is not available, staff should call 911 immediately and request paramedic response.<br><br>Emergency Medical Technicians (EMTs) are not authorized to administer injectable glucagon and must wait for paramedics or advanced EMTs to administer IV glucose. It is critical for appropriate, trained school staff to administer glucagon if prescribed by the LHCP and not delay care. |

### *Glucagon Emergency Kit*

Parents/guardians should supply the school with a glucagon emergency kit if prescribed and deemed necessary at school by the Licensed Health Care Provider (LHCP). Glucagon is available in several different forms:

- An injection that requires mixing prior to administration,
- A pre-filled syringe or auto-injector with a liquid-stable form of glucagon, or
- A dry nasal spray (powder) that is given through a puff in the nose, also called intranasal glucagon.

The school nurse and/or trained school diabetes personnel should also be aware of the glucagon storage requirements and expiration date and notify the student's parents/guardians when a new kit is needed.

## High Blood Glucose (Hyperglycemia)[8]

These are general guidelines. Consult the student's IHP, Section 504 Plan and Emergency Care Plan (ECP) for Hyperglycemia for the specific treatment plan.

All school personnel responsible for the student with diabetes should receive a copy of the Emergency Care Plan for Hyperglycemia and be prepared to recognize and respond to the signs and symptoms of hyperglycemia.

High blood glucose (hyperglycemia) is when blood glucose levels are above the target range specified in the student's IHP. Almost all students with diabetes will experience blood glucose levels above their target range at times. While hyperglycemia is not an immediate emergency, it may progress to a more serious condition called ketoacidosis - see Ketones and Diabetic Ketoacidosis section below.

High blood glucose that occurs repeatedly over multiple days indicates the need for evaluation of blood glucose management.

### Causes of Hyperglycemia*

- Food intake not adequately covered by insulin/other blood glucose-lowering medications
- Injury
- Too little insulin or other blood glucose-lowering medications
- Severe physical or emotional stress
- Illness, infection
- Malfunction in insulin pump or infusion set

**Consult IHP and parent/guardian for other known causes.*

In the short term, hyperglycemia may impair cognitive abilities and impact academic performance. In the long term, moderately high blood glucose levels may increase the risk for serious complications, including heart disease, stroke, kidney failure, nerve disease, gum disease, blindness,

and amputations. Students with undiagnosed diabetes may also exhibit some or all the following signs, including weight loss.

## Hyperglycemia Signs and Symptoms

**Mild**

- Thirst
- Dry mouth
- Frequent urination
- Fatigue
- Change in appetite
- Blurred vision
- Loss of concentration
- Sweet breath
- Mood changes, irritability

*Ketones (0 to small)*

**Moderate**

- Dry mouth
- Nausea
- Stomach cramps
- Vomiting

*Ketones (moderate/large)*

**Severe**

- Labored breathing
- Extreme weakness
- Confusion
- Loss of consciousness

*Ketones (moderate/large)*

### *Ketones and Diabetic Ketoacidosis*

When cells do not get the glucose they need because of insufficient insulin, fat is burned for energy. A by-product of using fat for energy is ketones. A buildup of ketones makes blood more acidic, and this can result in a condition called Diabetic Ketoacidosis (DKA).[8] While DKA develops over hours to days, it is a serious condition requiring hospitalization.

The classic signs of DKA include nausea and vomiting, severe abdominal pain, fruity breath, heavy breathing, shortness of breath, chest pain, increasing sleepiness or lethargy, and a decreased level of consciousness.

**As soon as these symptoms are noted, the school nurse or trained school diabetes personnel should call 911, the parents/guardians, and the student's licensed health care provider. Stay with the student until Emergency Medical Services arrive.**

If a student with type 1 diabetes has symptoms of illness including nausea, vomiting, severe stomachache, and/or fever, check blood/sensor glucose levels and ketones to rule out DKA.

DKA may result from the following situations:

- Significant or prolonged lack of insulin (insulin not taken or expired)
- Insulin pump or infusion set malfunction
- Physical or emotional stress, infection, or illness (especially with diarrhea and/or vomiting).

If a student has moderate to large ketones with or without symptoms, they should not participate in physical activity and will need to be picked up from school. Parents/guardians should contact the diabetes provider to determine the next steps in care.

The student's urine or blood may need to be checked for ketones according to the student's IHP, Section 504 Plan, and Emergency Care Plan for Hyperglycemia.

Parents/guardians should supply ketone test strips for testing if ordered by the student's LHCP. Testing should take place in the health room or designated private bathroom. Testing for ketones may be delegated to unlicensed assistive personnel (UAP).

## Treatment for Hyperglycemia (with/without pump)

As soon as symptoms of hyperglycemia are suspected, notify the school nurse or trained diabetes personnel. The student's blood/sensor glucose level should be checked to determine if it is above the target range. When checking the glucose level, treatment decisions should consider the time and amount of the student's last carbohydrate intake or insulin dose.

**It is important to wait the amount of time indicated on LHCP orders and IHP after the last dose of short acting insulin before administering a correction dose of insulin.**[20] If the student just ate and their blood glucose is high, hold off on a correction dose until their mealtime insulin is out of their system.

If the student's blood glucose is still high after a correction dose, injecting another dose too soon after the previous dose can result in "stacking" of the insulin doses. This can lead to dangerously low blood glucose.

**Always refer to the student's IHP or Section 504 Plan for guidance on administering correct doses of insulin.**

### *Hyperglycemia Treatment Checklist*

**Refer to the student's IHP, Section 504 Plan, and Emergency Care Plan for Hyperglycemia for specific instructions.**

**Immediate action:**

- Check the blood glucose level to determine if it is high.
- Check urine or blood for ketones if test strips are available and ordered by LHCP.
- Encourage the student to drink water or other sugar-free liquids (8 oz/hour if less than 5 years old or 8–16 oz/hour for students 6 years or older).
- Assess for symptoms of nausea, vomiting, severe abdominal pain, heavy/labored breathing, change in mental status. Check ketones if these symptoms are noted.

If moderate to large ketones are present with or without symptoms, call parents/guardians to pick student up from school and advise them to contact LHCP.

If Diabetic Ketoacidosis (DKA) is suspected, call 911, and request paramedic response.

**Treat High Blood Glucose:** ONLY give additional insulin if more than 3 hours since last insulin injection or if pump indicates a correction dose should be administered.

**Blood Glucose >_____ (see IHP/Emergency Care Plan)**

- Calculate the Insulin Correction Dose needed.
- Administer the supplemental insulin dose in accordance with the student's Emergency Care Plan (ECP) for Hyperglycemia. (If the student uses an insulin pump, see instructions below.)
- Allow unrestricted access to the restroom and to sugar-free liquids, as high blood glucose levels can increase urination and may cause dehydration if the fluids are not replaced.
- Recheck blood glucose every 2 hours to determine if it is decreasing to target range.
- If blood glucose >300 mg/dL two times, check ketones (urine or blood). Consult Emergency Care Plan for Hyperglycemia.
- Reduce physical activity as specified in the IHP/Emergency Care Plan for Hyperglycemia. However, if the student is not nauseous or vomiting and moderate to large ketones are not present, light physical activity might help to decrease the blood glucose level.
- Notify parents/guardians as specified in the IHP/Emergency Care Plan for Hyperglycemia.
- Depending on blood glucose level, the student may not be able to be transported on the bus. See specifications in the Emergency Care Plan for Hyperglycemia.

**For Students Using an Insulin Pump:**

- Check to ensure the pump is connected and functioning properly. If this is the first episode of hyperglycemia that day, the student has no symptoms, and ketones are less than moderate, give a correction bolus through the pump and RECHECK blood glucose level in 1 hour. You may use the pump calculator to determine the correction dose.
- If moderate or large ketones are present, administer correction/supplemental insulin dose by syringe or insulin pen and then change pump site, if possible.
- For infusion site failure: give insulin by syringe or insulin pen, then a new infusion set and/or reservoir will need to be placed.
- For suspected pump failure: Suspend or remove pump and give insulin by syringe or insulin pen.

# Illness

Illness may significantly impact glucose levels. Students with diabetes require more intensive monitoring during illness.

If a student has a temperature over 100.4°F, and/or is vomiting, parents/guardians should be contacted to get the student, as typically done for any student. Observe for symptoms of high blood glucose (hyperglycemia) or low blood glucose (hypoglycemia). Refer to ketones and ketoacidosis information above as needed.

# SECTION 7: DISASTER, LOCKDOWN, AND EMERGENCY PREPAREDNESS PLANNING AND SUPPLIES

The following subsections assume students will have access to all needed supplies. In planning for lockdowns and emergencies where the student does not have access to supplies, please refer to ADA Guidelines: Emergency Lockdown Preparation | ADA (diabetes.org).

Parents/guardians are recommended to provide an emergency supply kit with the student's identifying information in the event of lockdowns, natural disasters, or emergencies when students must remain in school. This kit should contain enough supplies for at least 72 hours and written instructions for emergency care.

**Emergency/Disaster Supply Kit Location**: Parents/guardians and school nurses should discuss the best location to store the disaster kit based on student level of independence, class schedule, extracurricular activities, field trips, events, etc. The location of the emergency supply kit should be clearly documented in the student's IHP and Section 504 Plan.

## Supplies

The ADA suggests the following supplies:[8]

72-hour Lockdown, Disaster, or Emergency Supply Kit:

- Copy of all student's LHCP orders for medication and treatment along with the IHP and ECP for both low and high blood glucose. Include any dietary/nutrition orders. Packet for each student with diabetes.
- Emergency only "How to" documents, instructions, and checklists for untrained UAP/school staff.
- Blood glucose meter (with instructions), test strips, and meter batteries
- Lancets
- CGM sensor supplies, including a charger
- Urine and/or blood ketone test strips and meter
- Insulin, syringes, and/or insulin pens and supplies (label insulin with date opened)
- Insulin pump supplies
- Insulin pump and CGM manual (if applicable)
- Other medications
- Alcohol wipes
- Quick-acting source of glucose, such as juice, regular soda, candy, glucose tabs/gel.
- Water sufficient for 72 hours
- Carbohydrate-containing snacks (whole grain crackers, granola bars, dried fruit, etc.)
- Hypoglycemia treatment supplies (enough for three episodes): quick-acting glucose and carbohydrate snacks

- Glucagon emergency kit
- Small logbook to record insulin dose and blood glucose results

## General Recommendations

### *Nutrition Orders*

Schools are generally prepared for inclement weather with food for one or two meals on hand. If a student needs specialized food, her or his parents should work with the LHCP, dietitian, and the food service manager to plan for emergency situations.

As possible, the student's regular meal pattern should be followed:

- Try to offer three meals along with a mid-morning snack, an afternoon snack, and a bedtime snack at usual meal/snack times.
- If possible, include a carbohydrate food and a protein food at each meal and bedtime.
- If protein foods are not available, then offer carbohydrate foods every two to three hours.
- If the student must spend the night at school, they should be given a bedtime snack consisting of carbohydrate and protein food such as a granola or protein bar.

# Low Blood Sugar

If a student's blood sugar is less than 70, he/she should be given a quickly absorbed sugar source such as:

- 4–8 oz. of juice,
- one-half of a can of regular soda,
- one to two packets of sugar,
- one packet of honey,
- or four to five hard candies.

A serving of carbohydrate and protein food, such as cheese and crackers, or half of a sandwich should follow. Include a copy of the student's Low Blood Sugar School Emergency Care Plan in the disaster kit.

## Blood Glucose Checks, Ketone Checks, and Insulin Administration in Emergency Situations

A means of checking blood glucose levels should be available. An extra meter can be left at school and may be used. In a disaster situation, a non-licensed person may need to assist the student with this skill. However, even young students may be able to perform or assist in the blood glucose check. It is also important to have ketone test strips available to measure urine or blood ketones. This should be done if the blood sugar level is elevated as indicated by LHCP orders. Ketones should also be checked if the student is not feeling well. If the student runs moderate or large ketones, the parents/guardians and LHCP should be notified as soon as possible.

It may be difficult for untrained professionals to perform diabetes care tasks in an emergency, but giving written instructions may be helpful. Registered nurses are not permitted by statute to delegate procedures requiring piercing of the skin. Parents may designate a PDA to provide care that a registered nurse may not delegate. (See Section 8). Even so, there may be a disaster situation in which an adult who is not a PDA would need these instructions.

Consider downloading instructions for diabetes tasks from the ADA or other recognized authority on management of diabetes. See the ADA's Training Resources For School Staff: Diabetes Care Tasks At School

If technology is available during an emergency, video training resources may be more helpful.

## *Training Resources*

Using a lancet to obtain a drop of blood for blood glucose check:

- How to Use a Lancet Device | Loading a Lancet https://www.youtube.com/watch?v=hu0zf3vwgI4
- Using your OneTouch® Delica® Plus lancing device - YouTube

Using a Glucometer (blood glucose test):
Safe at School: Chapter 5 - Blood Glucose Monitoring - YouTube

Insulin Administration:

- Safe at School: Chapter 8 - Insulin by Syringe & Vial - YouTube
- Safe at School: Chapter 9 - Insulin by Pen - YouTube

**Please refer to device manufacturer instructions if available.**

## *Disaster Insulin Dosage*

Insulin dosage may be decreased during a disaster to prevent low blood sugar. Refer to disaster specifications in the IHP or LHCP orders. A general guideline is to give 80 percent of the student's usual dose during a disaster. In many emergency situations, basal insulin will not be available.

It may be necessary for the student to take rapid acting insulin, or short acting insulin around the clock, or as described in the healthcare provider orders.

# SECTION 8: SCHOOL PERSONNEL GUIDELINES, STAFF TRAINING, AND PARENT DESIGNATED ADULT (PDAS)

## Personnel Guidelines for Caring for Students with Diabetes in The School Setting

This section describes who may assume responsibility for activities in the IHP or Section 504 Plan as determined by statute, regulation, Nursing Care Quality Assurance Commission (NCQAC) guidelines, or best practice.

While these are only guidelines, it is strongly recommended that they be followed to maintain safety and quality of care. **It is the responsibility of the school district to ensure appropriate staffing for the care of students with diabetes so they may access a Free, Appropriate, Public Education (FAPE).**

RCW 28A.210.330 requires school districts to develop district policy addressing the acquisition of orders from a healthcare provider for monitoring and treatment at schools. Licensed healthcare provider (LHCP) orders are required for the performance of all diabetes care.

### Student Independence/Dependence for Self-Management of Diabetes Care

- Assessment of the student's ability to perform diabetes care independently will be determined by the parent, school nurse, and LHCP. This assessment is a shared responsibility that needs to be documented on the LHCP orders and IHP.
- Supervision of these tasks by the student may be needed, depending on the student's developmental ability, level of independence, proximity to the initial diagnosis, and/or age.
- Such supervision may only be provided by a licensed staff registered nurse (RN), licensed practical nurse (LPN), parent-designated adult (PDA), student, or if the parent/guardian chooses a parent or family member.
- Periodic reassessment may be needed by the school nurse, parents/guardians, or LHCP as the student's level of independence may vary during the school year and in different school settings and situations. Students who were previously independent may need additional supervision as their level of self-management fluctuates.

### Glucose Monitoring: Blood Glucose Meter

- If ordered, glucose monitoring will be provided before meals and snacks and at other times

deemed appropriate by the LHCP, school nurse, and parents/guardians.
- Blood glucose monitoring should be done any time the student feels "low" or not well.
- Blood glucose monitoring may be done by the student if able, RN, LPN, parent/guardian, a family member, or a PDA as defined in the IHP or Section 504 Plan.
- Verification of the number on the meter display by unlicensed assistive personnel (UAPs) may be performed after training, supervision, and delegation by the school nurse.

## Glucose Monitoring: Continuous Glucose Monitor (CGM)

- A continuous glucose monitor (CGM) allows for glucose monitoring without repeated piercing of the skin (fingerstick).
- Verification of the number on the CGM display by Unlicensed Assistive Personnel (UAPs) may be performed after training, supervision, and delegation by the school nurse.
- Treatment decisions based on CGM readings may only be made by the independent student, parent/guardian, PDA, LPN, or RN as defined in the IHP or Section 504 Plan.

## Insulin Administration

- After training, supervision, and delegation by the school nurse, unlicensed assistive personnel (UAPs) can verify the *amount* dialed by the student on the insulin pen or the amount entered by the student on the insulin pump, for a student who is independent in self-injecting.
- Drawing up of insulin, verification of dose, and injection may be done only by the student (if independent for skill), licensed staff RN, LPN, PDA, or if the parent/guardian chooses a parent or family member.
- If extra insulin injections are needed (per LHCP orders), the licensed staff RN, LPN, PDA, student, or if the parent/guardian chooses, a parent or family member may perform the procedure. Extra injections are those needed as determined by testing done other than before meals. These injections can occur anywhere if provisions are made for blood containment, clean up, sharps disposal, and storage of medication.

## Low Blood Glucose (Hypoglycemia) Treatment

The glucose level may be checked by the RN, LPN, PDA, student, or if the parent/guardian chooses a parent or family member. See Emergency Care Plan for Hypoglycemia and the student's IHP and Section 504 Plan for specific guidance.

Anyone can treat the student who is experiencing symptoms of mild hypoglycemia (low blood glucose). If the student is excused from class to seek treatment at another location, they must be escorted to that location by a responsible adult. **It is critical to treat symptoms immediately.**

**Severe low blood glucose** (hypoglycemia) occurs when the student is unconscious and cannot safely swallow food or liquid. All school staff should be trained in emergency response for this situation.

**Treatment should NEVER be withheld if the student is symptomatic and glucose testing is not available**. If there is ever a doubt that the student is experiencing low blood glucose (hypoglycemia) symptoms, treatment should be given immediately.

### *Glucagon*

- Glucagon injections may ONLY be administered by a licensed staff RN, LPN, PDA, or if the parent/guardian chooses a parent or family member. Washington State statute does NOT allow the delegation of piercing of the skin except where otherwise specifically allowed by RCW. Glucagon autoinjectors may not be delegated under current law.
- Intranasal Glucagon Nasal Spray may be delegated to unlicensed personnel by the school registered nurse. Principles of delegation apply (see NCQAC Advisory Opinion on delegation section 3) as well as district medication policy and procedure. Intranasal glucagon may be administered by licensed staff RN, LPN, PDA, any staff member that has received training and delegation by the school nurse, or if the parent/guardian chooses, a parent or family member.

**IMPORTANT: When glucagon is administered, 911 must always be called.**

## High Blood Glucose (Hyperglycemia) Treatment

- A plan for high blood glucose (hyperglycemia) should be developed with parents/guardians and the healthcare provider that sets parameters for treatment, as necessary. Depending on the ability and independence of the student, parents/guardians may need to be contacted when blood glucose reaches a predetermined level.
- Testing for ketones may be delegated by the RN to unlicensed assistive personnel (UAP).

# Staff Training Policy for Students with Diabetes

School staff in-service training is specifically outlined in RCW 28A.210.340. Requirements are summarized below.

## Local School Board Responsibility

Local school boards shall designate a professional person licensed as a RN, ARNP, MD, DO, or a nationally certified diabetes educator to provide in-service training for school staff on symptoms, treatment, and monitoring of diabetes. Due to the changing nature of diabetes management, it is advised that the licensed professional(s) be competent in current diabetes management techniques.

## Parent-Designated Adult Responsibility

- Parent-designated adults (PDA) who are school employees are required to receive training in symptoms, treatment, and monitoring of diabetes provided by the school district.
- PDAs who are not school employees must show evidence of training in symptoms, treatment, and monitoring of diabetes that is comparable to what the school district

provides. It is recommended that PDAs who are not school district employees participate in the school district training for school personnel directly involved with student(s) with diabetes.
- All PDAs must receive additional training from a healthcare professional or expert in diabetes care for the additional care the parents have authorized the PDA to provide, which is included in the Individual Health Plan or Section 504 Plan. The diabetes care expert is defined by RCW 28A.210.340 and is selected by the parent. PDAs who are school employees are required to receive training regarding proper procedures for care of students with diabetes to ensure a safe, therapeutic learning environment. PDAs who are not school employees shall show evidence of comparable training. This training could be provided by a licensed nurse or diabetes educator who is nationally certified.
- Questions or concerns about the scope or level of care provided by the PDA could be brought to and addressed by the 504 team.

## Time and Frequency of Training

- The optimal training time is prior to the first day of school each school year.
- Additional training of some school personnel may need to occur during the school year if:
    - A new student transfers into the school district.
    - An enrolled student is newly diagnosed.
    - Treatment changes occur.
    - There is a concern regarding competence and skills of school staff or as indicated by the school nurse.

## Recommended Training Topics

The content necessary to include in the training for symptoms, treatment, and management of diabetes for both general Inservice for all school personnel and intensive training is included below. Intensive training will be individualized according to the Individual Health Plan developed by the school nurse with the parent and student.

Training topics:

- Overview of diabetes.
- Developing and completing a section 504 plan and IHP.
- Suggested accommodations for students with diabetes.
- Insulin action, delivery, and storage specific to child.
- Blood glucose testing rationale and brief process.
- Diabetes supplies.
- Low blood glucose.
- High blood glucose, illness, ketones.
- Diabetes nutrition and meal planning.
- Exercise and sports.
- Personnel guidelines for care.
- Questions and concerns raised by parents.

- Healthcare provider orders.
- Disaster preparedness.
- Parent-designated adults.

## Levels of Training

The American Diabetes Association (ADA) describes diabetes management training for school personnel in three tiers to ensure effective school-based diabetes management[7]:

**Tier 1: ALL school personnel should receive training** that provides a general overview of diabetes, how to recognize and respond to the signs and symptoms of low blood glucose (hypoglycemia) and high blood glucose (hyperglycemia), and whom to contact in case of an emergency.

**Tier 2: School personnel who are responsible for implementing the IHP and ECP for students with diabetes** should receive general training in symptoms, treatment, and monitoring of diabetes designed for individuals indirectly involved with student(s) with diabetes. This training supports their individual roles and responsibilities for the management of diabetes routine care and emergencies.

**Tier 3: At least one school staff member with advanced training about diabetes and routine and emergency care for each student with diabetes must be available at all times.** This may be a licensed nurse or parent-designated adult (PDA). Intensive training in symptoms, treatment, and monitoring of diabetes is required for the PDA.

# Parent-Designated Adults (PDAs)

RCW 28A.210.330 through 350 allows parents to designate an adult through specific procedures to assist students in managing their diabetes. Parents can assign care to a PDA but are not required to do so. The statute defines a Parent-Designated Adult (PDA) as "a volunteer, who may be a school employee, who receives additional training from a healthcare professional or expert in diabetes care selected by the parents, and who provides care for the child consistent with the individual health plan."

The statute requires districts to provide an individual health plan (IHP) or Section 504 Plan for every child with diabetes (type 1 and type 2). As a part of an IHP or Section 504 Plan, parents may choose to designate an unrelated adult, or PDA, to provide care such as blood glucose monitoring and/or insulin or glucagon administration that would otherwise be performed by a health professional licensed under RCW 18.79. The volunteer PDA may be a school district employee.

The law does not allow a school district to shift any responsibility to the parent to provide, or secure the provision of, diabetes care. The district is responsible for the provision of care for students with diabetes and may need to provide a full-time nurse at the student's school.

If a PDA is a school employee, the district must keep on file a current, and unexpired letter of intent

from the employee to act as a PDA. This letter must be filed without coercion from the employer. Additionally, the letter must state the employee's willingness to be a volunteer PDA. School district employees may not be subject to any reprisal or disciplinary action for refusing to be a PDA. Furthermore, school districts should keep on file documentation of the required additional training that all PDAs must receive for the additional care the PDA may provide as authorized by the parent, such as insulin or glucagon injections and blood glucose monitoring procedures.

A model form- Model Voluntary Parent Designated Adult Notice of Intent for documentation may be found on the OSPI Sample Forms webpage. Registered Nurses (RNs) and Advanced Registered Nurse Practitioners (ARNPs) may not delegate procedures such as blood glucose monitoring and insulin injections to unlicensed staff. Thus, the law provides that the designated licensed professional is not responsible for the supervision of the PDA for those procedures that cannot be delegated and are authorized by the parent for the PDA to provide.

## Parents' Responsibilities in Regard to PDAs

- Provide written authorization for a PDA to provide additional care, specifying the additional care so authorized. This may include blood glucose testing, injections, glucagon administration, and other diabetes care.
- Coordinate with the district-designated licensed professional to ensure that the additional care authorized for the PDA to provide is consistent with the child's IHP.
- Arrange for a healthcare professional or an expert in diabetes to provide training for the additional care that the parent authorizes the PDA to provide. Schools are encouraged to support access to this training.
- If the PDA does not receive additional training, a health professional licensed under RCW 18.79 would need to perform this care.

## Parent-Designated Adult Responsibilities

- Voluntarily submit to the school district a written, current, and unexpired letter of intent. This letter must state the PDA's willingness to be a volunteer PDA and *must be submitted at least annually*. See Appendix D for model form - Model Designation of a Parent Designated Adult.
- Meet with school staff to review the IHP and ensure care will be delivered according to the IHP.
- Attend school district training offered for staff directly involved in care of the student with diabetes. The PDA, if not a district employee, may provide documentation of comparable training in lieu of attending district offered training.
- Complete and provide documentation of training for additional care authorized by the parents.

## Liability

A school district, school district employee, agent, or PDA is not liable in any criminal action or for civil damages in his or her individual, marital, governmental, corporate, or other capacities as a result of the services provided if he or she:

- Acts in good faith.
- Acts in substantial compliance with the student's individual health plan, and the instructions of the student's licensed healthcare professional.
- Provides assistance or services as outlined in RCW28A.10.330-350.

# SECTION 9: ROLES AND RESPONSIBILITIES

## Definitions of Roles

### Students

Children and youth determined to be independent in their diabetes care may perform all diabetes management activities while at school or school sponsored events. Independence must be approved by the LHCP, parent/guardian, and school nurse. Individual district policy may also require administrator approval. Trained and authorized staff must be available to provide care in case of emergency when the student is unable to manage independently.

### Parents/Guardians/Family members

Parents/guardians or family may perform all diabetes management tasks for their child/family member but may not be required to do so by the district. A parent/guardian who volunteers to provide care for their child must meet district and school requirements for volunteering. *If the family member is less than 18 years of age, the 504 team should determine if it is appropriate and safe for the family member to provide the care. Family members who are also students (siblings) may be considered on a case-by-case basis. Family members must have prior approval by parent/guardian before providing care.* PDA (Parent-Designated Adult):

A Parent-Designated Adult is a volunteer, who may be a school employee, who receives additional training from a healthcare professional or expert in diabetes care. The PDA is selected by the parent/guardian and provides care for the student consistent with the IHP or Section 504 Plan. PDAs may perform any diabetes management tasks that the parent/guardian designates once the conditions are met for this designation.

### UAP (Unlicensed Assistive Personnel)

School employees trained and supervised by the district/school RN who has delegated tasks such as verifying numbers on glucose meter, insulin pen, and/or insulin pump. A release should be included that is signed by the parent/guardian and school nurse.

### Any district or school staff

All other school district staff such as administrators, teachers, secretaries, paraprofessionals, kitchen staff, bus drivers, etc., that may have contact with the student during the school day or during school sponsored events.

### NA-C/NA-R (Nursing Assistants Certified and Registered Nursing Assistants)

The NA-C/NA-R may perform blood glucose checks in the school setting if hired under that credential. **However, unlike other designated community settings, NA-C/NA-R credentialed**

**individuals may not receive delegation from the school RN in nursing care activities at the time of this writing**. Only UAPs may receive delegation in the school setting. NA-C/NA-R may perform basic care that does not require delegation such as hygiene and toileting. The Nursing Care Quality Assurance Commission is expected to release new guidance regarding the role and scope of nursing assistants in the near future. See Practice Guidance | Nursing Care Quality Assurance Commission (wa.gov)

## Quick Reference Guide by Activity

Individuals legally able to perform **ALL** the tasks in the table below **are not** included in the table. These individuals may include independent students, parents/guardians/family, and licensed nurses.

| Blood Glucose Monitoring | |
|---|---|
| **Activity** | **Authorized Unlicensed Personnel** |
| Perform test before meals | • PDA |
| Pierce skin/perform blood glucose monitoring | • PDA |
| Verify number on meter | • PDA<br>• Designated UAP |
| Interpret results | • PDA |
| Test for high or low blood glucose | • PDA |
| Test during special events (extended day, field trip, sports, band, etc.) | • PDA |

| Insulin Administration | |
|---|---|
| **Activity** | **Authorized Personnel** |
| Determine correction factor and insulin to carb ratio[8] | • PDA |
| Verify number on insulin to carb ratio chart | • PDA |
| Verify a student's calculation for carbs or insulin | • PDA |
| Draw up syringe and administering insulin | • PDA |
| Verify dose on syringe (not an insulin pen) | • PDA |
| Dialing dose and administering insulin via insulin pen | • PDA |
| Verify number on insulin pen | • PDA<br>• Designated UAP |

| | |
|---|---|
| INSULIN ADMINISTRATION Continued | • PDA |
| Administer insulin bolus dose per pump | • PDA |
| Verify number on insulin pump | • PDA<br>• Designated UAP |
| Extra Injections for correcting blood glucose – other than before meals | • PDA |

| Hypoglycemia – Low Blood Glucose | |
|---|---|
| **Activity** | **Authorized Personnel** |
| Follow treatment plan for mild, moderate, and severe low blood glucose | • Any School Staff |
| Call 911 if unconscious or unable to swallow | • Any School Staff |
| Glucagon injection | • PDA |
| Glucagon – Intranasal | • PDA<br>• Designated UAP |

| Hyperglycemia – High Blood Glucose | |
|---|---|
| **Activity** | **Authorized Personnel** |
| Determine correction factor and | • PDA |
| insulin to carb ratio | • PDA |
| Follow treatment plan for high blood glucose | • PDA<br>• Designated UAP |
| Ketone urine test | • PDA<br>• Designated UAP |

| Other | |
|---|---|
| **Activity** | **Authorized Personnel** |
| Snacks | • Any school staff |
| Illness and/or injury | • Any school staff - May require follow up with licensed staff, PDA, or parent/guardian depending on the nature of the illness. Monitoring of glucose levels may be necessary. |

## Quick Reference Guide by Role or Title

| Title | Treatment Activities and Tasks |
|---|---|
| **Student** | Students may perform any self-management tasks if determined to be independent in care as documented in IHP/504.<br>Staff must be available to provide emergency care in the event student is incapacitated (administer glucagon) |
| **Parent/Guardian** | All treatment activities and tasks |
| **PDA** (Parent-Designated Adult) | All treatment activities and tasks, once conditions for designation are met |
| **RN** (Registered Nurse) | All treatment activities and tasks, if competent to perform tasks |
| **LPN** (Licensed Practical Nurse) | All treatment activities and tasks if care is not complex and student is medically stable – under supervision of RN |
| **UAP** (Unlicensed Assistive Personnel) | With training and/or delegation:<br>● Verify number on meter<br>● Verify number on insulin pen<br>● Verify number on insulin pump<br>● Administer intranasal glucagon<br>● Administer Ketone urine test |
| **Any district or school staff** | ● Follow treatment plan for mild, moderate, and severe low blood glucose (except injections)<br>● Call 911 if student is unconscious or unable to swallow<br>● Provide snacks<br>● Tend to illness or injury (may require follow up by licensed staff, PDA, or parent/guardian, glucose monitoring, ketones, etc.) |
| **NA-C/NA-R** (Nursing Assistants Certified and Registered Nursing Assistants) | Blood glucose checks only |

### *Licensed Personnel*

It is within the scope of practice of the registered nurse (RN) and licensed practical nurse (LPN) to perform all diabetes related nursing tasks. Licensed nurses are responsible for ensuring competency to perform nursing tasks and may request adequate time to obtain necessary training if they are unfamiliar with a specific task. LPNs may only practice under the supervision of an RN for the care of students whose condition is predictable and not complex.

# SECTION 10: DIABETES NUTRITION AND MEAL PLANNING

Meal planning and nutrition recommendations for students with diabetes are designed to provide flexibility to meet each student's nutritional needs, eating habits, and schedule. Structured meals and snacks help promote optimal blood glucose management and prevent hypoglycemia or hyperglycemia during the school day. Insulin regimens are then individualized to fit each student's lifestyle. The student's IHP or Section 504 Plan outlines the role of the student, family, and school personnel in managing the meal plan.

## School Meals

If a student with diabetes eats school meals, the parents/guardians, healthcare provider, or school nurse may need to contact the school's food service dietitian/supervisor to ensure appropriate school participation in the student's meal plan. For appropriate modifications to be made in the school's menus, the parent/guardian must supply a meal plan signed by a LHCP.

Snacks may be supplied by the school food service if designated in the student's IHP.

**Meals should never be withheld because of lack of payment or for any reason.** If there is a party at school, work with the parents/guardians to make accommodations (as determined by the IHP or Section 504 Plan) so that the student can participate.

## Nutritional Needs of Students with Diabetes

All students need a variety of healthy foods to maintain expected growth and development. The main difference is that a student with diabetes must balance the timing, amount, and content of food intake, especially carbohydrates, with activity, insulin, and any other diabetes medications. The meal plan should also consider the student's food preferences, culture, family eating patterns, developmental needs, and other medical conditions.

Many students with diabetes follow a meal plan designed to help them maintain or achieve a healthy lifestyle. Certain students may be prescribed a calorie target for the day as well as consistent carb amounts to aim for at each meal and snack to help manage their weight and blood glucose. In addition to regular physical activity, ensuring that healthy foods such as whole grains, low-fat protein, and dairy (or plant-based milks), and fruits and vegetables are available is critical to diabetes nutrition management.

Certain students may have dietary restrictions such as those diagnosed with celiac disease. Other students need to limit salt intake to help manage high blood pressure. All dietary restrictions should be outlined in the student's IHP and documented with the district's food services department using the OSPI Request for Dietary Accommodations Form.

See Appendix D.

Although there are no forbidden foods for students with diabetes, it is advised to avoid "liquid carbs" such as sugar-containing soda and juices (including 100% fruit juice). Liquid carbohydrates (carbs) rapidly increase blood glucose, are difficult to balance with insulin, and provide little to no nutrition. HOWEVER: Sugar-containing drinks are important for the treatment of hypoglycemia.

## Blood Glucose Response to Major Nutrients

The three major nutrients that provide energy and calories are **carbohydrates**, **protein**, and **fat**.

### *Carbohydrates (Carbs)*

Carbohydrates are directly converted into glucose when digested and are the body's main source of energy. Carbohydrates are the most important nutrient for people with diabetes to monitor to balance blood glucose with insulin after meals and snacks.

3 main types of carbohydrates in food:

- **Starch:** Foods high in starch include vegetables such as peas, corn, potatoes, beans, lentils, etc., and grains such as oats, barley, rice, wheat, pasta, bread, crackers, etc.
- **Sugar:** Naturally occurring sugars include sugars in milk (lactose) and fruit (fructose). Added sugars include sugar added to make a cookie, sugars from syrup or honey.
- **Fiber:** The indigestible part of plant foods, including fruits, vegetables, whole grains, nuts, beans, and legumes.

ALL carbohydrates will be converted into glucose in the body except for fiber, which cannot be digested. The healthiest sources of carbohydrates are whole grains, vegetables, fruits, and beans because these foods also contain vitamins, minerals, and fiber.

### *Protein*

Protein is found in meat, fish, poultry, meat alternatives, eggs, cheese, milk, nuts, tofu, seeds, beans, legumes. A small amount is also found in starchy foods and vegetables.

Protein does not directly break down into glucose. However, when carbohydrates are unavailable, protein from the body's muscles can be converted into glucose.

Tips for healthy protein foods:

- Lean or low-fat meat and poultry
- Cold-water fish rich in healthy fats (salmon, trout, sardines)
- Limit processed meats such as lunch or deli meats, sausages, bacon
- Unsalted or low-sodium nuts and seeds

### *Fat*

Fat is found in meat, poultry, fish, nuts, milk products, butters and margarines, oils, lard, grain products (baked goods, snack foods), fried foods, salad dressings, etc.

- Dietary fat does not break down into glucose.
- Fat (as well as protein and fiber) slows digestion which also slows down the absorption of carbohydrates, thereby contributing to more balanced glucose levels.
- Eating too much fat may cause insulin resistance, which may lead to prolonged high glucose levels.[32]

Examples of foods that contain healthy fats:[25]

- **Omega 3 fatty acids**: Oily fish, salmon, sardines, herring, mackerel, tuna, walnuts, flaxseeds, avocados, canola oil, chia seeds, etc.
- **Omega 6 fatty acids**: tofu, walnuts, flaxseed, eggs, canola oil, sunflower seeds, almonds, peanut butter, etc.

## How Food Affects Blood Glucose

Food affects blood glucose levels differently depending on whether the food contains carbohydrates, proteins, fats, or a combination. [26]

- Carbohydrates raise blood glucose the most. Liquid carbohydrates (juice, soda, milk, etc.) cause a faster rise in blood glucose than solid foods.
- Foods that contain ONLY carbohydrates may raise blood glucose faster than food that also contains fats and protein.
- High-carbohydrate foods eaten with a meal that also contains fats and protein will cause a slower rise in glucose than if eaten alone.
- **Students should eat 3 meals and 1–3 snacks per day.** Snacks should include 2–3 major nutrient groups (carbohydrates, fat, protein).

## Matching Food with Insulin Action

**Portion size and timing of meals/snacks can affect how quickly and how high blood glucose levels rise.**

- Eating larger portions causes a higher rise in blood glucose levels than smaller portions.
- Giving rapid-acting insulin 10–15 minutes before meals can help manage glucose levels by matching insulin to carbohydrate consumption.
- Consistent portion sizes of meals and snacks make it easier to adjust insulin doses and timing.
- Administering rapid, or short-acting insulin before lunch helps the student achieve more optimal blood glucose management.

## Tips for Healthy Eating to Achieve Optimal Blood Glucose Management

- **Do not skip meals:** Low blood glucose (hypoglycemia) can occur in the absence of regular meals and snacks. Eating meals and snacks in consistent proportions, and at consistent

times can help.

- **Choose heart-healthy snacks and meals:** Heart disease is one of the most common long-term complications of diabetes, and having diabetes doubles the risk of having a heart attack or stroke.[27] A heart-healthy (reduced fat, high fiber, low sugar, low salt) approach to eating is the best way to promote overall health and fitness for everyone.
- **Cover dietary sugar appropriately with insulin:** Sugar can fit into a diabetes meal plan when covered appropriately with insulin. Refer to the student's IHP for directions if the student will be consuming items with sugar.

# Approaches to Meal Planning

Most students with diabetes have an individualized meal plan that uses a method of carbohydrate counting. The meal plan accounts for the student's nutritional needs, insulin level, oral medications, and physical activity level. Depending on the student's goals, carbohydrate counting may be used to provide consistency in daily carbohydrate intake or to allow increased flexibility in types and amounts of food.

## Meal Planning Methods Using Carb Counting

**Important: Always consult the student's IHP.**

### *Carbohydrate Counting & Identifying Carbohydrate Content in Food and Drink*[8]

Carbohydrate counting is the most common meal planning approach for youth with diabetes. This approach involves calculating the grams of carbohydrate the student eats and drinks. Although foods in the protein and fat groups contain minimal carbohydrates and are not counted in this approach, a well-balanced, heart-healthy diet (reduced fat, high fiber, low sugar, low salt) includes all major nutrients.

The food service team and/or school nurse should make the carbohydrate content of school meals and beverages available to parents/guardians and students with diabetes upon request. The school may engage a registered dietitian nutritionist (RDN) to work with the food service staff to make this information available.

Other resources for identifying the carbohydrate content of food and drink include Exchange Lists for Meal Planning, the nutrition information on food labels, online resources, diet, and carb counting apps, or other resource books.

Additionally, the US Department of Agriculture (USDA) maintains a National Nutrient Database containing nutrient information on more than 8,000 foods and beverages. The FDA requires Nutrition Facts labels on packages for most prepared foods., These labels include the carbohydrate content as well as other nutrient values for each serving in the package.[28]

### *Adjusting Insulin for Changing Carb Intake*

This method is often used by students who use multiple daily injections or an insulin pump, as it allows insulin doses to be adjusted to cover the amount of carbs the student will consume by using

an **insulin-to-carb ratio and an insulin correction/sensitivity factor.** These factors are individualized for each student and specified in the IHP. This method gives the student with diabetes more flexibility with eating and requires a good understanding of the student's insulin therapy and carb counting.

See the worksheet examples in **Advanced Insulin Management: Using Insulin-to-Carb Ratios and Correction Factors** for instructions on how to calculate the insulin dose using a student's insulin-to-carb ratio and insulin correction factor.[29]

**NOTE**: Some students now may use a device that performs bolus calculations automatically, such as a blood glucose meter, smart phone application, connected insulin pen app, or insulin pump. Insulin-to-carb ratios and insulin correction formulas are pre-programmed into the device.

### *Following a Consistent Carb Intake Meal Plan*

This method of meal planning is often used by students who take an intermediate-acting insulin in the morning or students who receive a preset amount of rapid- or short-acting insulin at meals. Students who follow a consistent carb intake meal plan aim for a set amount of carbohydrate grams at each meal and snack and do not adjust their mealtime insulin for the amount of carb intake (e.g., 60 grams of carbs at each meal). The student's personal diabetes health care team helps determine the amount of carbs at each meal and snack.

Students who follow a consistent carb meal plan must maintain consistency in the timing and content of meals and snacks. The student should eat lunch at the same time each day. Snacks are usually essential to achieve a balance with the peak times of insulin action and with physical activity.

## Other Meal Planning Methods

The Diabetes Plate Method of meal planning is an easy and effective way to manage blood glucose levels by creating a healthy balance of carbohydrates, protein, and vegetables without any counting, calculating, measuring, or weighing.[30]

**See also:** Special Considerations: Special Events Involving Food in the next section.

# SECTION 11: PHYSICAL HEALTH[8]

Physical activity is an essential element of effective diabetes management. Although all students may benefit from regular physical activity including organized sports and active play, it is even more important for students with diabetes. Not only does participation in physical activity promote spending time with friends, building self-confidence, improving cardiovascular health, and managing weight, but it can also help lower glucose levels.

Students with diabetes should be encouraged to fully participate in physical education classes and team or individual sports. To maintain glucose levels within the target range during physical activity, students will need to adjust their insulin and food intake. To prevent hypoglycemia, they may also need to monitor their glucose levels more frequently before, during, and after participating in physical activity.

Specific requirements should be included in the student's IHP or Section 504 Plan, including when physical activity should be restricted due to glucose levels that are too high or too low or if ketones are present.

## Tips to Help Students Improve Physical Health

- Be active every day for at least 60 minutes. Students do not have to join a gym or be on a sports team to stay active. Dancing, riding a bike, walking the dog, or doing any physical activity they enjoy for at least 60 minutes a day will work. Activity can occur throughout the day; it doesn't have to occur all at once.
- Limit play time in front of the computer, tablet, smartphone, and TV to two hours per day.
- Limit portion sizes of foods high in fat, sugar, and salt. Instead of eating a large serving of fries, students can order a small serving or share a large serving with friends. Try measuring snacks in small portions instead of grazing. Eliminating sugar-sweetened beverages is an easy way to reduce added sugar.
- Cut some calories. Some healthy ways to cut calories include drinking water instead of sweetened fruit drinks, soda, or sports drinks and eating fruit instead of chips or candy. Encourage students to read food labels or download an app to learn about the number of calories, carbs, and fat in the foods and beverages they consume.
- Eat a healthy breakfast. Eating a healthy breakfast will help students stay focused during the day and help manage their blood glucose.
- Lose weight slowly. No more than one or two pounds of weight loss per month is recommended, because students are still growing. Losing weight slowly may help students keep it off.

### ADA Tips for Promoting and Maintaining Physical Health with Diabetes[8*]

Being physically active, eating nutritious meals, and maintaining a healthy weight are particularly important for students with diabetes to help manage blood glucose levels and to establish healthy

habits as they grow older. Healthy habits include being active every day and choosing healthy foods including fruits, vegetables, lean protein, and whole grains for meals and snacks. More children and adolescents in the US are either overweight or obese than ever before. Higher weight places students at risk for **type 2 diabetes.**

*__Note__: Although the focus in this section of the ADA guideline is on reaching and maintaining a healthy weight, the focus of this guideline is on promoting overall physical health.

## General Guidance for Student Participation in Physical Activity

- **Staff Responsibilities**: Physical education teachers and coaches **must** be familiar with students' diabetes management routine and have a copy of the ECP available when participating in physical activity.
- **Glucose Monitoring**: Students should be allowed to monitor glucose before, during, and/or after exercising (see student's IHP or Section 504 Plan) per RCW 28A.210.330.
- **Meals/Snacks/Hydration**:
    - Students should eat **at least 2 hours** before intensive exercising.
    - Extra snacks should be made available during exercise to prevent low blood glucose (hypoglycemia). Examples: 4 to 8 oz sports drink for every 30 minutes of vigorous exercise, food that combines carbs, fat, and protein (e.g., cheese and crackers) for longer-acting energy.
    - Drink plenty of water, especially in hot weather. **Dehydration can lead to elevated ketones and unstable blood glucose**.
    - Always have quick-acting carbohydrate food/beverages available for managing low blood glucose (hypoglycemia). Suggestions include:
        - 2 tablespoons of raisins
        - Glucose tablets
        - Glucose gel
        - Candy
        - 4-8 oz of juice or regular soda (not diet)

# Guidance for Student Participation in Physical Activity

## Low Blood Glucose (Hypoglycemia)

Every physical education teacher, sports coach, and staff supervising recess MUST be aware of the signs and symptoms of hypoglycemia and be prepared to call for help in case of a hypoglycemia emergency.

- Students should **STOP ACTIVITY** until hypoglycemia is resolved. The student's Emergency Care Plan for Hypoglycemia, a quick-acting source of glucose, and the student's blood glucose meter or CGM reader/smartphone app should always be available, as well as plenty of water. Consult the student's IHP and Section 504 Plan for more information.
- **Insulin Pump Use:** Consult the student's IHP and Section 504 Plan for specific instructions for pump use during physical activity.

- Students using insulin pumps with tubing may disconnect from the pump for sports activities for no more than 1 hour.
- If students keep the pump on, they may set a temporarily reduced insulin delivery rate or suspend the use of insulin while they are active.
- School staff should provide the student with a safe location to store the pump when the student is not wearing it.

## High Blood Glucose (Hyperglycemia)

If blood glucose level is above 250 mg/dL two times in a row, ketones should be checked. For students on insulin pumps, ketones should be checked if their blood glucose is unexplainably above 300 mg/dL. Ketones may be checked as determined in the student's IHP or Section 504 Plan, and **Emergency Care Plan for Hyperglycemia**. If there are no ketones, the student should be okay to play. Students with ketones should wait until they clear before participating in physical activity.

**If Ketones Small to Large:** The student may need to clear the ketones with extra insulin and zero calorie fluids before being physically active. Contact the parent/guardian or PDA per the IHP or Section 504 Plan when ketones are present and/or blood glucose is high.

# SECTION 12: SPECIAL CONSIDERATIONS

## Accommodations

Under Section 504 of the Rehabilitation Act of 1973, students with diabetes must be provided environmental accommodations and the emergency school health services they need to safely attend school. This means full access to all activities, services, or benefits provided by the school district. If the student is determined to be eligible for services under Section 504, then the district's Section 504 procedures should be followed. The IHP and/or the ECP may serve as the Section 504 accommodation plan. If the student is determined to be eligible for special education services under IDEA, then IDEA district procedures must be followed.

Schools cannot deny student participation in any program or activity based on disability. Nor may a school request the parent of a student with a disability to accompany their child on a field trip—unless it requests that all parents do so. Schools should provide any accommodations, aids, and services that a student needs to participate in any school program or activity, even if they might be costly or require staff to be available. On an individual case-by-case basis, a school may prohibit a student with a disability from participating in an extracurricular activity if it presents an unacceptable risk for the health or safety of the student—but this is an exceedingly rare exception. First the school must consider whether safe participation can be assured by providing accommodations, aids, or services or reasonable modifications to the activity. See OSPI Fall Virtual Training Series Section 504 Handout (www.k12.wa.us)

## Field Trips, School Sponsored Events and Activities[8]

### Field Trip Planning and Destination

Field trips can present challenges for students with diabetes in relation to their safety and inclusion per Section 504. Administrators and School Staff need to be aware of the impact of field trip selection and all student health conditions when choosing field trips. Careful selection may provide enhanced educational opportunities for all students, while avoiding potential health challenges for students with life threatening conditions, including diabetes. Destinations should be assessed for potential risks and access to emergency services. If the field trip destination is potentially unsafe or first responders and medical facilities are too distant for a safe response time, an alternative destination may be appropriate.

### Advance Notification for Field Trips

Many districts have a procedure for reasonable and prudent notification of field trips to health staff for planning purposes and to arrange for adequate staffing. Field trip coordinators must provide adequate notification and time for collaboration to provide for student safety. The school nurse must be notified well in advance of any field trip to plan for and provide necessary health related

accommodations. Notify parents about field trips (dates/length of time, location, activities, anticipated food consumption).

## Out-of-State or Out-of-Country Trips

Out of state or country trips involve complex considerations regarding delegation of medication, risk management, and require more time to address. It is important to be aware of any state nurse practice laws relating to interstate travel. For more information regarding field trips and school sponsored events, see Guidelines for Medication Administration in Schools (www.k12.wa.us)

## IHP/ECP

Diabetes management strategies for school-sponsored field trips should be included in the student's IHP and Section 504 Plans. Student specific IHP, ECP, LHCP orders, and emergency medications must be carried out by appropriate school staff who can provide necessary care for students with diabetes during the field trip.

## Staffing Support

Provisions should be made to **ensure appropriate staff support is available to provide emergency care even if the student is independent.** All necessary snacks and supplies for checking blood glucose, administering insulin, and treating hypoglycemia must be brought on the trip. Backup supplies, including insulin pens/syringes, which can be used in the event of insulin pump failure should be included.

- Guidance regarding how to proceed when support plans break down can also be helpful.
- Prior to departure, have mobile communication devices available and in working order.
- Have at least 2 adults able to provide emergency care and support – must be school staff. School staff are responsible for the safety of students. Additional staff may be required to manage:
    - Medication administration and first aid
    - Activation of EMS/911
    - Supervision of other students

- **Modified snack/Prepared lunch:** The school food service staff may assist with planning if a student requires a modified snack or prepared meals for the event.

School districts may not require parents/guardians to accompany their child to provide medical care on any school sponsored activity, but parents/guardians may voluntarily do so. Some districts have hired and compensated parents/guardians to act as their own child's caregiver during school activities.

## Overnight Field Trips

Overnight field trips may require additional orders from the LHCP for any medications or treatments not normally provided at school. Students independent in their care during the school day may need additional support and care in new situations or overnight. Many students can

manage their own care while awake but may not respond to alarms while sleeping. The student's diabetes team should be consulted.

## Extracurricular Activities

The plan for coverage and care during school-sponsored extracurricular activities and field trips outside of school hours should be carefully outlined in the student's IHP and Section 504 Plan.

- Parents/guardians must inform the school whether the student will require an insulin injection and/or a substantial snack before participating in a preplanned before or after-school activity (e.g., any school-sponsored event, club, sports practice, game, etc.). The student's IHP or Section 504 Plan should include this information, along with the name of the PDA or staffing support that may be required for any extracurricular activities.
- Even students who are independent may require planning for the provision of emergency care such as glucagon administration during extra-curricular activities when the school nurse or PDA is not available.
- It is the school district's responsibility to ensure appropriate staffing is provided for students with diabetes to access the same educational and extra-curricular activities available to their peers.
- **Modified snack/Prepared lunch:** The school food service staff may assist with planning if a student requires a modified snack or prepared lunch for the event or activity.

## Special Events Involving Food

Although there are generally no forbidden foods for students with diabetes, special events often include foods high in carbohydrates, and it is important to have a plan that addresses the health needs of each student. Consult the student's IHP or Section 504 Plan for guidance regarding school-specific policies and food provisions. Serving nutritious snacks will benefit all students and will encourage good eating habits.

The following suggestions for special events involving food are a good idea for all students, not just those with diabetes.

1. Send the party menu home in advance. If possible, decide on the menu for the party and send this home with the students prior to the event. Parents/guardians can incorporate special foods in the student's meal plan or adjust the insulin dosage. Some parents/guardians may provide alternative snacks/foods for the student with diabetes.
2. Consider the needs of the student with diabetes when setting the time for the party. A party at the usual snack or lunchtime for the student with diabetes would be beneficial.
3. Substitute party foods for usual snack or lunch foods. Consult with parents/guardians or refer to the student's IHP or Section 504 Plan when choosing foods.
4. Choose foods and beverages that will not raise blood glucose very high. Some examples include water, fresh vegetables or fruit, seed butter, low-fat cheese, and hummus. **These foods may not impact every child with diabetes equally.** Work with the student and family to identify the best choices for the student.
5. If possible, consider planning an event that doesn't include food, such as show-and-tell,

birthday book reading and signing, dance party, extra recess, special craft etc.

# Anti-Bullying Policies and Procedures

The unique health needs of students with diabetes may cause them to become targets for harassment, intimidation, and bullying. Students with diabetes report a higher incidence of bullying than their peers.[8] School districts are required by RCW 28A.600.477 to have anti-bullying policies and procedures. Bullying behavior must be addressed promptly according to district policy. See more OSPI information on harassment, intimidation, and bullying.

## Confidentiality and Privacy

All information regarding a student's health status and their medication is confidential and cannot usually be discussed by UAP administering medication with anyone except the delegating nurse without parent/guardian (or student if applicable) permission. Students are entitled to privacy during the administration of their medication.

Per RCW 70.02.050, a healthcare provider may disclose health care information—except for information and records related to sexually transmitted diseases—about a patient without the patient's authorization to the extent a recipient needs to know the information, if the disclosure is to a person who the provider reasonably believes is providing healthcare to the patient. Confidentiality is a particularly important legal concept in the school setting.

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy interests of students and their educational records. FERPA applies to any educational agency that receives funds from the United States Department of Education (USDOE). Health records (including medication documents) maintained by school employees for pre-kindergarten through grade twelve students are considered education records and therefore protected by FERPA.

The Health Information Portability and Accountability Act (HIPAA) of 1996 Privacy Rule requires covered entities to protect individuals' health records and other identifiable health information. When a school provides healthcare to students in the normal course of business, it is also known as a "health care provider." The HIPAA Privacy Rule allows covered health care providers to disclose protected health information about students to school nurses, physicians, or other health care providers for treatment purposes, without the authorization of the student or student's parent.

See Joint Guidance on the Application of FERPA and HIPAA to Student Health Records | Protecting Student Privacy (ed.gov)

# Clinical Laboratory Improvement Amendments of 1988 (CLIA) Waiver

CLIA establishes authority to set laboratory testing standards regardless of the location or by whom the test is performed. Currently, per CLIA law, there are 40 laboratory tests that qualify for waived

laboratory testing because they have been determined by the CDC and FDA to be simple tests with little risk of error. Some testing methods for blood glucose and urine are waived.

The Washington State Department of Health Lab Quality Assurance (LQA) office regulates and issues waiver certificates for Washington State.

School district health services are considered a medical test site under CLIA authority if school staff are performing testing on body fluids (blood, urine, etc.) to collect information for assessing or diagnosing to determine what course of action or treatment to provide. This applies to diabetes blood glucose and urine or blood ketone testing in schools. When this is the case, school districts must apply for a certificate of waiver (COW) to perform laboratory tests required to manage students' health conditions such as diabetes. When applying for a waiver, the district must list the specific types of tests they will be performing.

If a school does not currently have a student enrolled who requires blood glucose testing, a waiver license is not required. If a student is independent in blood glucose testing, a waiver may not be needed. Schools should consider the possibility that staff may be required to assist a student with diabetes in an emergency.

CLIA Waivers are valid for two years and are renewed on odd years. The deadline for renewal is June 1 to avoid license expiration on June 30. A generic district email address is recommended as a point of contact with the LQA to ensure renewal notice is received. Renewal does not require the application packet to be completed again.

**For more information:**
Washington State Department of Health Medical Test Site Licensing Applications
Laboratory Quality Assurance | Washington State Department of Health

# Nursing Practice

RCW 18.79 and WAC 246-840-700 govern standards of nursing practice regardless of the practice setting. A professional RN is obligated to follow RCW 18.79 to determine how nursing care should be carried out. In the school setting, the RN is responsible for developing, implementing, and managing student emergency care plans. This includes delegation, training, and supervision of student medication administration by non-licensed staff.

## Scope of Practice Decision Tree

The Nursing Care Quality Assurance Commission (NCQAC) regulates the practice of nursing in Washington state. Nurses are expected to employ the NCQAC Scope of Practice Decision Tree as a tool to determine the scope of nursing practice and resolve nurse practice questions.

In a school setting, the Nursing Delegation Decision Tree Tool is an additional tool that can be found on page 5 of the NCQACs 2022 advisory opinion Registered Nurse Delegation in School Settings: Kindergarten-Twelve (K-12) Grades, Public and Private Schools.

These tools are used to determine the responsibilities a nurse can safely perform and are intended to complement professional nursing judgment rather than deliver definitive "yes" or "no" answers to complex situations. The decision tree encourages individual nurse accountability for practice decisions.

School administrators should be aware that in applying the Scope of Practice Decision Tree and Nursing Delegation Decision Tree, school nurses are bound by the professional licensing statutes and rules governing their practice, regardless of the employment setting. For example, the RN must follow RCW 18.79.260 when determining care activities for students.

As noted in the law:

"*No person may coerce a nurse into compromising patient safety by requiring the nurse to delegate if the nurse determines that it is inappropriate to do so…Nurses shall not be subject to any employer reprisal or disciplinary action by the nursing care quality assurance commission for refusing to delegate tasks or refusing to provide the required training for delegation if the nurse determines delegation may compromise patient safety* (RCW 18.79.260 (3)(d))."

## Authority of a School Nurse

An additional law regarding nursing practice in a school setting is RCW 28A.210.305. This law clarifies that an RN or an ARNP working in a school setting is authorized and responsible for the nursing care of students to the extent that the care is within the practice of nursing. It clarifies the independent clinical practice of an RN in the school setting including medication administration and the summoning of emergency medical assistance.

## Code Of Professional Conduct

The OSPI Code of Professional Conduct for Education Practitioners - State of Washington for certificated school employees also supports the independent responsibilities set forth above in the nurse licensing statute. The Washington Administrative Code defines an act of unprofessional practice as "The assignment or delegation in a school setting of any responsibility within the scope of the authorized practice of nursing, physical therapy, or occupational therapy to a person not licensed to practice such profession unless such assignment or delegation is otherwise authorized by law, including the rules of the appropriate licensing board." WAC 180-87-070(2). In this regard, nursing care can only be delegated by the RN.

## Washington State Nurse Licensure Compact (NLC)

Substitute Senate Bill (SSB) 5499 (Multi State Nurse Licensure Compact) was signed into law in April 2023. For more information regarding the implementation plan, go to the Washington State Nursing Care Quality Assurance Commission webpage.

# Life with Diabetes

Students with diabetes must learn to deal with general growth and development issues in addition to learning to manage this complex chronic disease. Diabetes affects every area of life, complicating the task of mastering typical developmental challenges. Living with diabetes is a challenge met not only by the student, but also by their family, school system, healthcare providers, and other caregivers. Diabetes management is a team effort that hinges on communication, creativity, flexibility, adaptability, and consistency.

While the unique challenges faced by students or families cannot be predicted, specific challenges can always be expected. These include:

1. **Physical challenges** taking place in the student's body as it deals with high and low blood glucose.
2. **Emotional challenges** as the student and his or her family encounter frustration and struggles created by their illness and the reality of a lifelong chronic illness. School staff should be aware that students with diabetes are at higher risk of developing eating disorders. Bulimia and binge eating are a concern, with some students omitting insulin to lose weight. If there are concerns that a student may have an eating disorder, notify the school nurse or the parents/guardians for appropriate follow up by a medical and mental health professional.[8]
3. **Practical challenges** imposed by the need for (and inconvenience of) multiple daily insulin injections and blood sugar monitoring, nutrition and exercise management, and other routine schedule changes.
4. **Systemic challenges such** as the student's illness impact his or her family, school system, day care, peers, and other environments.

Despite these challenges, perhaps the biggest challenge met by a newly diagnosed student is her or his need and desire to be no more unique, different, or special than any other child in the classroom, day care, or family environment. Maintaining sensitivity to this fact, particularly at the time of diagnosis, is critical in creating an atmosphere of understanding, emotional privacy and safety, and acceptance. The key principles below are intended as **general** guidelines that may be helpful in meeting the challenge of living with diabetes within multiple settings.

1. **Students may or may not want to keep their diagnosis private.** Some students may wish to share their diagnosis with their classmates, while others may not. It may be helpful to include the student in the 504 meeting to communicate who may need to know about their diagnosis and assess to what extent they may want to share their diagnosis. For example, talk with the parent, student, and 504 team to consider if other classmates could be given instruction about diabetes or whether to have a classmate become a "special buddy" for monitoring activities and symptoms. The parents of the "special buddy" would need to be involved.
2. **Students have varying levels of understanding about their diagnosis.** Use developmentally appropriate language when speaking to children about their diabetes and other issues.

3. **The need for independence and assistance may vary with age and life circumstances.** Frequent check-ins with a student regarding her or his need for independence or assistance are helpful in keeping feelings of anxiety and frustration to a minimum and help reduce the risk of complication due to oversight or lack of knowledge. If uncertain of what level of assistance a student requires for appropriate management, do not assume: ASK.
4. **Students come with families, teachers, friends, and others.** Treatment of caregivers is critical in creating consistency of treatment for the child. It is important to recognize that the student's disease is also affecting the people in their life, not just the student. Take care to assess the emotional needs of parents, siblings, schoolteachers, and others who care for the student.
5. **When working toward independence, make expectations clear to the student.** If you are uncertain a student can reliably demonstrate a skill related to her or his diabetes management, have the student demonstrate it for you. The care team (parents, school personnel, and healthcare providers) should assess the student's developmental and emotional readiness for each independent task. Independence may happen in phases. The parents, healthcare provider, and/or school nurse may request a change in independence status. Parents should always be present when independence status is being considered. This may require a reevaluation of the student's IHP or Section 504 Plan.
6. **Prepare for emergencies.** Having extra supplies on hand at several locations is critical and should not be overlooked. Create a checklist of needed supplies, snacks, emergency numbers, etc. Check and update it regularly.
7. **Plan ahead.** Students require assistance with field trips, overnight stays, and other events. Looking ahead can prevent the likelihood that an emergency may occur and can decrease the number of events that a student must miss due to diabetes. Be creative. Be flexible.
8. **Seek help when help is needed.** Do this early and often. If you wait for a crisis before allowing others to help, you are modeling this behavior to the student.
9. **Put it in writing.** This can be helpful in preventing miscommunication between parents and students, school personnel, and others. Have all necessary parties sign, including the student. Keep the agreement visible and review and change as needed. The IHP or Section 504 plan is an ideal means of "putting it in writing." Informal documents such as cheat sheets, flow charts, student-specific information, etc. can also be helpful.
10. **Cooperate, communicate, and create.** Use these concepts as your guiding force in maximizing the student's opportunities for success.
11. **Students should be an active participant in IHP or Section 504 planning.** Listen to the student's concerns related to living with diabetes, attending school, peer relationships and the need for independence. This helps to encourage them to advocate for themselves when moving on to college, the workforce, and adulthood.

For further information on emotional and social considerations, please see the American Diabetes Association's Safe at School: Helping the Student with Diabetes Succeed: A GUIDE FOR SCHOOL PERSONNEL

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# SECTION 14 APPENDICES

## Appendix A: Common Acronyms and Definitions

### Acronyms

**AAP** – American Academy of Pediatrics

**ADA** - American Diabetes Association

**ADA** – American with Disabilities Act

**AID -** Automated Insulin Delivery Systems

**ARNP** – Advanced Registered Nurse Practitioner

**CDE -** Certified diabetes educator (as of 2020 they are a certified diabetes care and education specialist)

**CDCES** - Certified diabetes care and education specialist (as of 2020 new name for certified diabetes educator)

**CDC** – Centers for Disease Control and Prevention

**CFRD** - Cystic fibrosis related diabetes

**CLIA** -Clinical Laboratory Improvement Amendments of 1988

**CPR** – Cardio-Pulmonary Resuscitation

**DiSH** - Diabetes in School Health- Washington

**DIY -** Do-it-yourself automated insulin delivery system

**DKA** - Diabetic Ketoacidosis

**DOH** – Washington State Department of Health

**ECP** – Emergency Care Plan

**EMS/911** – Emergency Medical Services

**EMT** – Emergency Medical Technician

**ESD** – Educational Service District

**FAPE** – Free and Appropriate Public Education

**FDA** - Food and Drug Administration

**FERPA** – Federal Educational Rights and Privacy Act

**HCL -** Hybrid Closed Loop (HCL) insulin pump

**IDEA** – Individuals with Disabilities Education Act

**IEP** - Individualized Education Plan

**IHP** – Individualized Health Plan

**LHCP** – Licensed Health Care Provider

**LPN** – Licensed Practical Nurse

**MDL -** Milligrams per 100 deciliters measurement. mg/dL

**MODY** - Maturity onset diabetes of youth

**NA-C** - Nursing assistant certified

**NA-R** - Registered nursing assistant

**NASN** – National Association of School Nurses

**NCQAC** – Nursing Care Quality Assurance Commission

**Non-HCL -** Non-Hybrid Closed Loop pump is an insulin pump

**OSHA** – U.S. Occupational Safety and Health Administration

**OSPI** – Office of Superintendent of Public Instruction

**PDA** - Parent Designated Adult

**RCW** – Revised Code of Washington

**RN** – Registered Nurse

**ROI** – Release of information

**SNC** – School Nurse Corps

**UAP** - Unlicensed assistive personnel

**USDA** – U.S. Department of Agriculture

**WAC** – Washington Administrative Code

**WISHA** – Washington Industrial Safety and Health Act

**WSCC** – Whole School, Whole Community, Whole Child

**WSSDA** – Washington State School Directors' Association

**WSRMP** – Washington State Risk Management Association

## Definitions

**AAP – American Academy of Pediatrics -** Professional organization of pediatricians.

**ADA** – Americans with Disabilities Act - The Americans with Disabilities Act of 1990 (ADA) prohibits discrimination based on disability by public entities, regardless of whether they receive federal financial assistance.

**Adjunctive CGM** - Requires the user to verify their glucose level on the CGM with a fingerstick blood glucose prior to making treatment decisions.

**ADA** -American Diabetes Association - American Diabetes Association (ADA) is a not-for-profit membership association that promotes efforts to prevent and cure diabetes and works to improve the well-being of people with diabetes and their families.

**AID -** Automated Insulin Delivery Systems Do-It-Yourself (DIY) Automated Insulin Delivery systems (AID) or DIY Looping are considered open-source systems and have become more commonly used in the diabetes community; **However, they are not FDA approved nor part of this guide**. School districts cannot accept requests or orders for use by students while attending school or any school sponsored events. Requests for the use of DIY devices at school should be directed to the school nurse who will consult with the provider and family.

**ARNP** – Advanced Registered Nurse Practitioner -A nurse practitioner (NP or ARNP) is a nurse with a graduate degree in advanced practice nursing.

**CDC** – Centers for Disease Control and Prevention -CDC is the nation's leading science-based, data-driven, service organization that protects the public's health.

**CDCES** - Certified Diabetes Care and Education Specialist (as of 2020 new name for certified diabetes educator/CDE) Individuals who provide evidence-based diabetes self-management education and support (DSMES) services and help people live well with diabetes.

**CDE -** Certified Diabetes Educator - (as of 2020 they are classified as a "certified diabetes care and education specialist") Individuals who provide evidence-based diabetes self-management education and support (DSMES) services and help people live well with diabetes.

**CFRD** - **Cystic fibrosis related diabetes** CFRD occurs in people with cystic fibrosis and results from the destruction of the digestive and endocrine cells of the pancreas.

**CLIA** -Clinical Laboratory Improvement Amendments of 1988 - CLIA regulations establish quality standards for laboratory testing performed on specimens from humans, such as blood, body fluid and tissue, for the purpose of diagnosis, prevention, or treatment of disease, or assessment of health. Per the FDA (Food and Drug Administration), the CLIA Program regulates labs testing human specimens and ensures they provide accurate, reliable, and timely patient test result no matter where the test is done in the U.S. FDA definition.

**CPR** – Cardio-Pulmonary Resuscitation- "A medical procedure involving repeated compression of a patient's chest, performed in an attempt to restore the blood circulation and breathing of a person who has suffered cardiac arrest."

**Diet Order** - A medical prescription which documents the special nutritional needs of a child requiring dietary modifications.

**DiSH** - Diabetes in School Health is a free online educational program for school nurses and pediatric diabetes experts to collaborate in an effort to improve diabetes care in schools.

**DIY - Do-it-yourself automated insulin delivery system -** Do-It-Yourself (DIY) Automated Insulin Delivery systems (AID) or DIY Looping are considered open-source systems and have become more commonly used in the diabetes community; **However, they are not FDA approved nor part of this guide**. School districts cannot accept requests or orders for use by students while attending school or any school sponsored events. Requests for the use of DIY devices at school should be directed to the school nurse who will consult with the provider and family.

**DOH** – Washington State Department of Health - The Department of Health is the state's Public Health Oversight agency; it works to protect and improve the health of all people in the state. https://doh.wa.gov/about-us

**ECP** – **Emergency Care Plan** - This is a plan, developed by the school nurse based on provider orders to support a student's Diabetes condition, which is required by law, as a Life-Threatening Condition. (See RCW 28A.210.320).

**EMS/911** – Emergency Medical Services - EMS is a system that responds to emergencies in need of highly skilled pre-hospital clinicians.

**EMT** – Emergency Medical Technician - An emergency medical technician (EMT) is a medical professional who gives emergency care to people outside of or on the way to the hospital.

**ESD** - Nine Educational Service Districts in Washington state provide supportive services to school districts including technical support for school health services.

**Evidence Based Practice** - "Evidence-based practice involves combining the best evidence available with nursing expertise and patient and family preferences to determine optimum care.

**FAPE** - free and appropriate public education.

**FERPA** - The Family Education Rights and Privacy Act of 1974 (FERPA) - Federal legislation which protects the privacy of student information by restricting access to individual student records. Addresses student confidentiality including the notification of student and parental rights regarding access to student records. https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html

**Food and Drug Administration/FDA -** U.S. federal government agency whose mission is to protect public health by making sure that food, cosmetics, and nutritional supplements are safe to use and truthfully labeled. This agency is responsible for ensuring that the drugs available on the US market meet certain standards for both safety and efficacy.

**HCL - Hybrid Closed Loop (HCL) insulin pump -** Hybrid closed loop technology – also known as the artificial pancreas – automates many of the decisions that you have to make on a daily basis when you have type 1 diabetes.

**IDEA – Individuals with Disabilities Education Act -** Prescribes the duty of states and public agencies. to provide early intervention, special education, and related services for students whose disability impacts their ability to learn. For more information visit the OSPI website.

**IEP - Individualized Education Plan** - An Individualized Education Plan (or Program) is also known as an IEP. This is a plan or program developed to ensure that a child with an identified disability who is attending an elementary or secondary educational institution receives specialized instruction and related services. A student who is determined eligible for special education may still require accommodations and related services as a part of her/his IEP to address the medical management needs associated with diabetes.

**Lancet -** A lancet is a pointed piece of surgical steel encased in plastic, used to puncture the skin on one's finger (or other body part) to get a blood sample.

**Lancing device -** A lancing device uses a spring to drive the lancet into the skin and retract it very quickly. It also allows the user to change the depth of penetration depending on the thickness of the skin and calluses and the sensitivity of the fingertips. In this way, enough blood can be obtained without causing unnecessary pain.

**LHCP – Licensed Health Care Provider** - This can be a MD/Medical Doctor, DO/Doctor of Osteopathy, ARNP/Advanced Registered Nurse Practitioner, PA/Physician's Assistant, Naturopath; all having prescriptive authority.

**LPN – Licensed Practical Nurse** - The LPN scope of practice in the nursing process is limited and focused. The LPN practices in an interdependent role when carrying out nursing care and a dependent role when carrying out medical regimens. The LPN may administer drugs, medications, treatments, tests, injections, and inoculations, whether or not the piercing of tissues is involved and whether or not a degree of independent judgment and skill is required under the direction of an authorized healthcare practitioner or under the direction and supervision of the RN.

**McKinney-Vento Homeless Act** - Federal law prescribes the rights of students experiencing homelessness.

**MDL - Milligrams per 100 deciliters measurement. mg/dL** This is the measurement parameter used for blood glucose levels.

**MODY - Maturity onset diabetes of youth -** This type of maturity onset Diabetes is caused by an autosomal dominant familial gene. Most types do not require insulin and may manage with or without oral medication. Several of the less common forms of MODY do require insulin and may be associated with birth defects. Genetic testing is necessary to make the diagnosis.

**Nursing Assistants:** Certified (NA-C) and Registered (NA-R) Nursing Assistants are credentialed assistive personnel for health care. Their ability to practice in school settings has been recently clarified and expanded by the Nursing Care Quality Assurance Commission (nursing commission or NCQAC). The scope of practice of the NA-C or NA-R is defined by WAC 246-841-400 . The rules for delegation to NA-Cs and NA-Rs, WAC 246-841-405, only apply in the community and home-based settings and not to schools. As a result, the ability of NA-Cs and NA-Rs to perform certain tasks in the school setting is limited by their scope of practice. The two levels of nursing assistants are nursing assistant-certified (NA-C) and nursing assistant-registered (NA-R) (RCW 18.88A.020).

- **Nursing Assistants –Certified** must complete a minimum of 85 hours of training through a state-approved program and must pass the competency exam. Students who are in a licensed practical nursing or registered nursing program, and who have met the minimum requirement, also qualify. In addition, military medic or corpsman training may meet our requirements.

- **Nursing Assistants –Registered:** No formal training is required. Training is provided by a facility where NA-R is employed. For information about the requirements for approval of nursing assistant-certified training programs, see WAC 246-841-420
- **NASN – National Association of School Nurses** - Professional organization for School Nursing.

**NCQAC – Nursing Care Quality Assurance Commission -** The Washington State Board of Nursing. Public Health agency that functions to regulate competency and quality of all LPN's, RN's, ARNP's, and Nursing technicians; has licensing, standards, and discipline authority.

**Need to Know** - Sharing of confidential student information with district employees or contract personnel that provide direct healthcare services or are responsible for the safety and supervision of students, only when it is essential to provide safe care. This can include school officials with a legitimate educational interest under FERPA and as defined in district policy. The school nurse determines who has a need to know, what they need to know and when they need to know according to:
RCW 70.02.050 Disclosure without patients' authorization - Need-to-know
WAC 246-840-710 4(b) - Violations of standards of nursing conduct or practice
FERPA (20 U.S.C. § 1232g; 34 § CFR Part 99.31) School officials with legitimate educational interest and appropriate officials in cases of health and safety emergencies.
WAC 246.840.700 Standards of Nursing Conduct or Practice

**Non-adjunctive CGM** - Can be used to make treatment decisions without the need for a fingerstick blood glucose measurement to confirm testing results.

**Non-HCL - Non-Hybrid Closed Loop pump is an insulin pump -** Fully closed-loop systems, unlike hybrid systems, are designed to automate all insulin delivery without requiring user input for mealtimes.

**OSHA – U.S. Occupational Safety and Health Administration -** Federal agency set up to ensure safe and healthful working conditions for workers by setting and enforcing standards and by providing training, outreach, education, and assistance.

**OSPI – Office of Superintendent of Public Instruction -** The primary agency charged with overseeing public K–12 education in Washington state. OSPI works with the state's 295 public school districts and 6 state-tribal education compact schools, allocating funding and providing tools, resources, and technical assistance so every student in Washington is provided a high-quality public education, including health support for these same students.

**Parent** -These guidelines use the word "parent' to be inclusive of all the adults (including a guardian) who may have the authority to make educational and medical decisions for the child in accordance with the Washington Administrative Code (WAC) definition in **WAC 392-172A-01125**

**PDA** - **Parent Designated Adult** - An individual, designated by the parent, through proper procedures, to assist students in managing their diabetes.

**RCW** - **Revised Code of Washington** - state law as enacted by the Legislature.

**RN – Registered Nurse** - The RN functions interdependently, carrying out a medical regimen under the general direction of an authorized health care practitioner: Licensed physician and surgeon (MD), dentist (DDS), osteopathic physician and surgeon (DO), naturopathic physician (ND), optometrist (OD), podiatric physician and surgeon (DPM), physician assistant, osteopathic physician assistant (PA), advanced registered nurse practitioner (ARNP), or midwife. These activities include administering medications, treatments, tests, and inoculations whether the severing or penetrating of tissues is involved and whether or not a degree of independent judgment and skill is required. Such direction must be for acts within the scope of practice of the nurse. See NCQAC Registered Nurse and Licensed Practical Nurse Scope of Practice Advisory Opinion.

**School Nurse** - WAC 246.760.010(13) Definitions, abbreviations, and acronyms - "School nurse" means a registered nurse acting as the health professional in a school whose specialized practice and attendant tasks and activities advance student health, well-being and achievement; and conforms to Washington state educational and nursing laws according to chapters **18.79 RCW** and **246-840 WAC**, and **WAC 181-79A-223**.

**School Policy** - Written statements by which school districts govern all facets of school operations. They provide binding guidance to directors, administrators, staff, students, parents/guardians, and the public about how school district programs will work.

**Section 504** - Section 504 of the Rehabilitation Act of 1973 - Plans developed to address students' needs for services to manage diabetes safely and effectively in school, as required under Section 504 of the Rehabilitation Act of 1973.

**SNC – School Nurse Corps** - This entity was created to support each of the nine Educational Service Districts (ESDs) with School Nurse Corps Nurse Administrators who then support registered nursing hours for the neediest schools in their regions. In particular, the support is provided in the form of training, mentoring, consultation, technical assistance, and professional development for nurses and administrators in all school districts.

**UAP** - **Unlicensed assistive personnel** - School employee trained and supervised by RN who has delegated the tasks such as verifying numbers on glucose meter, insulin pen, and/or insulin pump. A release should be included that is signed by the parent/guardian and school nurse.

**USDA – U.S. Department of Agriculture** (USDA) maintains a National Nutrient Database containing nutrient information on more than 8,000 foods and beverages. The FDA requires **Nutrition Facts labels** on packages for most prepared foods, including canned and frozen foods, breads, cereal, snacks, desserts, drinks, etc. These labels include the carbohydrate content as well as

other nutrient values for each serving in the package. This agency has formally acknowledged a commitment of current regulations and guidance which require program operators to provide reasonable accommodations for children whose disability restricts their diet for all meals and snacks when supported by a medical statement signed by a licensed physician.

**WAC**- **Washington Administrative Code** - These are the **rules** adopted by state agencies that support the implementation of associated RCWs and hold the force of law.

**WISHA – Washington Industrial Safety and Health Act** -**WISHA i**dentifies hazardous workplaces using objective criteria and inspection-scheduling systems.

**WSRMP – Washington Schools Risk Management Pool** WSRMP is part of the public education system, owned by member school districts, with an aim of safety and protection for K-12 schools. This agency provides risk management, claims, liability, and related concerns.

**WSSDA – Washington State School Directors' Association**- State agency charged with supporting the work of locally elected school board members per chapter RCW. WSSDA creates model policies.

# APPENDIX B: Frequently Asked Questions

1. **Who will Monitor the Health of My Child During the School Day?**

School district personnel will monitor the health of your child during the school day and school activities. If students need support during the day, their Section 504 Plan will outline what needs to be done at school and who will be responsible. It is helpful if parents/guardians can meet each of the individuals responsible for their child's care. This 504 plan also serves as direction for your child's teacher(s). Refer to the "Suggested Accommodations for the Student with Diabetes," Section 4, and "Personnel Guidelines for Care of Students with Diabetes in the School Setting", Section 8 for more information.

If your child's school is staffed with a full-time nurse, the school nurse will monitor your student and provide diabetes care. If your child's school is not staffed with a full-time nurse, the district may recruit a school nurse for your child's school or may discuss other staffing options such as Parent Designated Adults. A PDA must be willing to receive additional training from a healthcare professional or expert in diabetes care (selected by the parents) and provide care for the student consistent with the school's IHP or Section 504 Plan.

2. **How can I contact my child's teacher?**

Most teachers prefer to be contacted during their work hours. When both parents work, it is sometimes difficult to reach the teacher and be available when they can talk. Often communication via a note in the student's backpack, an email, or voicemail can be a solution. Address the issue of how to communicate with the teacher as soon as possible at the beginning of the year, or as soon

as your child is diagnosed. Alternatively, the school nurse may assist in communicating with educational staff, especially regarding health needs. You may also address concerns about your student's health and safety with their Section 504 team or your district Section 504 coordinator.

### 3. Will my child be labeled as "That Diabetes Kid"?

The individual self-worth of every student is important in a learning environment. Most teachers are well trained and sensitive enough to avoid this type of "stereotyping." The student's self-perception and how they manage their illness will most likely be the "measuring stick" that classmates will use with each other when interacting. If your child appears to have difficulty accepting or living with diabetes, talk with your school nurse or healthcare provider about finding a counselor or a diabetes educator to help address the issues. Partner with the school nurse to determine if classmates should be taught about diabetes.

### 4. Will my child's new teacher know anything about diabetes?

Teachers and other school staff are mandated to receive annual health training,[27] however, it is advisable for you to request an IHP or Section 504 plan meeting prior to each school year. Most teachers are very receptive to parental involvement. Since teachers are terribly busy at the beginning of the year, they may need some lead in time to plan to meet with you. You need to be patient and available to educate, particularly in the area of low blood sugar (hypoglycemia) management. Your child's IHP or Section 504 plan should ensure that all staff that come in contact with your child are involved: substitute teachers, other teachers, playground monitors, cafeteria workers, and bus drivers, as per RCW 28A.210.340. Transition to next year can be addressed in a child's IHP or Section 504 plan. Be sure to maintain a good working relationship with the staff.

### 5. What about snacks at school?

Snacks need to be available for your child. Your child's IHP or Section 504 plan should include a snack plan. Extra snacks can be kept in your child's backpack, in the main classroom, gymnasium, and the health room. Your child needs to know where the snacks are stored. If your child does not remember snack times, the teacher may be able to remind him or her. Alternatively, your child could wear a watch with an alarm that can alert him or her to snack time or testing time. To avoid problems, be sure to work out acceptable snack foods in advance when developing your child's IHP or Section 504 plan. Ask the teacher and healthcare worker to notify you when the snack supply is low.

### 6. What About the Diabetes Supplies?

Do not forget to periodically restock insulin, blood monitoring supplies, and low blood sugar and emergency supplies. Your child's IHP or Section 504 plan should address who should notify you when the diabetes supplies are low. You are responsible for cleaning and quality control checking of your child's meter and insulin pen and ensuring that the insulin supply is fresh.

7. **I am concerned that if my son leaves his insulin pen at school, the insulin will become outdated and must be wasted. This insulin is expensive. I feel that my 11-year-old son is responsible and should be allowed to carry his insulin pen instead of storing it at school.**

The school district's policy and your son's level of independence will be important factors in the solution to this question. Most school districts have policies about the safety of sharps and bloodborne pathogens. If your son has demonstrated that he is responsible for the use of his insulin pen, it might be possible to establish a plan for him to carry his insulin pen in a secured place. This matter should be addressed in your child's IHP or Section 504 plan.

8. **What Will Happen when there are Special Occasions Such as School Parties, Field Trips, Etc.?**

Discuss parties, field trips, etc. at your child's IHP or Section 504 plan meeting. If possible, develop a plan for unexpected activities that is consistent with your child's healthcare provider orders. Communication between the school and parents (well in advance of parties, field trips, etc.) is helpful in determining a plan for food and insulin that is manageable and is consistent with healthcare provider orders and allows children with diabetes to participate fully with their peers. Pre-planned menus (and carb counts) and ample advance notice can facilitate this participation.

Field trips are almost always preplanned. Student's parents or guardians are not required to accompany the student on field trips or any other school activity. If the parent or family member cannot attend a field trip or activity, a student cannot be excluded.[28,29] A number of variables need to be considered when planning for the trip: the level of independence your child may have with their diabetes care, the availability of licensed personnel or PDA joining the trip, the length of time the trip will last, the necessity to test, the need to take insulin, and the potential for low blood sugar during the trip. The details should be addressed at your child's IHP or Section 504 plan meeting.

9. **What Can Be Done When Staffing For A Student With Diabetes Is Canceled On Short Notice?**

*This scenario could apply to regular daily school attendance or field trips.*

Schools should notify the parents/guardians as soon as possible. While parents may offer to provide care for the student, they may not be obligated to. It is the district's responsibility to provide the care necessary for students to access FAPE.

Check student IHP for back-up plans and alternate trained staff and determine if they are available.

The school Nurse is responsible for planning support; however, when these plans breakdown, the nurse's role is to refer the matter to the administrator for resolution.

10. **Will a Na-C Or Na-R be Hired to Provide Diabetes Care to my Child in the Absence of a School Nurse?**

The school RN cannot delegate diabetes care to a NA-C/NA-R in the school setting. Under the credential of NA-C/NA-R, blood glucose testing is the only allowed diabetes-related task in the school setting. The law does not allow delegation of piercing of the skin to UAP in the school setting.

### 11. Can the Teacher or Secretary Look at the Syringe to be Sure the Right Amount of Insulin that the Child Drew up is Correct?

Please refer to "Personnel Guidelines for Care of Students with Diabetes in the School Setting," Section 8, as a guide to assist school districts in identifying the needs of students with diabetes and who can be responsible to help meet those needs. There is a difference between an insulin syringe and an insulin pen. A dose of insulin delivered via an insulin syringe requires verification by a licensed health professional, or a PDA. However, an assigned, trained school employee who may or may not be a PDA can legally verify the number of units of insulin shown on the insulin pen or pump.

### 12. I Have Been Told That The More In-Range My Daughter's Blood Sugars Are, The Better Her Chances Are For Fewer Health Complications From Diabetes. How Can The Necessary Checks Be Done At School?

Studies have shown that patients with Type 1 Diabetes who experienced intensive management regimens developed fewer diabetes complications.[30] This decrease was achieved despite the fact that average blood sugar levels were still above the normal range. Schools recognize that students with diabetes have some special needs that may need to be accommodated to facilitate education and diabetes management.

Some students with diabetes may require accommodations such as preferential seating, a shortened day, a mid-morning or afternoon snack, an injection, or a blood sugar check. When a student is independent in monitoring and insulin-administration skills, there are few requirements of school employees. When the student is less independent, school staff will need to be more involved. It is important to establish a realistic plan regarding monitoring of student's symptoms, testing of blood sugar, and administration of insulin, keeping in mind the need to balance educational needs and minimal disruption to the student's school day while maximizing health and safety. Communication with the school nurse will facilitate this goal. The demands on specialized school personnel are high. If a parent feels that the amount of monitoring by school personnel is insufficient, they should request an IHP or Section 504 plan meeting to discuss their concerns.

### 13. My High School-Aged Child Won't Tell Anyone That She Has Diabetes.

***She ended up passing out on the volleyball court before someone realized that she had a problem. How do you get kids to share such essential information?***

Once a student begins to realize that they have different requirements for their body, it is not uncommon to want to hide the fact to be the same as others. It is important to remember that kids

are kids first and they all share similar developmental needs. Family attitudes teach early lessons in the precautions that someone with diabetes needs to take. A young person can learn that her daily routine is just a part of her personal responsibilities and care. Your child's IHP or Section 504 plan should ensure information is confidential and will be shared with staff only to the extent they need to know to monitor your child's health. The age that the diagnosis was made may have an impact on how she accepts or denies the fact that she has diabetes. If the denial is such that vital details are being ignored, a referral to a counselor may be necessary. Your healthcare provider, endocrinologist, diabetes educator, and school nurse are all appropriate referral sources.

**14. A Parent Support Group Would Have Helped To Keep Me From "Rediscovering The Wheel."**

*What are the possibilities of that being developed?*

An excellent resource is the American Diabetes Association. Your hospital, your diabetes educator, and your health care provider are other resources to connect your family with support groups. Within the school district it will be very individual. If there are parents of children with diabetes that are willing to share phone numbers, this can be a good "help" line. The district's school nurse is the most appropriate contact for this kind of assistance. The nurse can inquire if other parents are willing to share their thoughts and phone numbers. Due to confidentiality issues, it cannot be assumed that individuals would be willing to share such information.

**15. How Does The School Address Special Education Needs For A Student With Diabetes Who Experiences Variable Glucose Readings That May Impact Their Access To Educational Opportunities?**

Diabetes is a disability covered under Section 504, and in most cases requires accommodations within the school setting. However, for a student with diabetes to be eligible for special education, he or she must be determined to have a disability and an adverse educational impact that cannot be addressed exclusively through education in general education classes, with or without accommodations, and needs special education and related services.

The school district has an obligation to locate, identify, and evaluate students who are suspected of having a disability and may need special education and related services in order to participate in and/or benefit from a district's educational program. If the district determines that an evaluation is necessary, it must get parent permission prior to conducting the evaluation and it must provide parents with an opportunity to participate in any discussion regarding the student's eligibility for special education and related services. It is during this evaluation process that the district must differentiate between special education and related services and accommodations under a Section 504 plan to address a student's medical management needs related to diabetes. A student who is determined eligible for special education may still require accommodations and related services as a part of her/his IEP to address the medical management needs associated with diabetes. It is not necessary for a district to create a separate 504 plan for a student who is eligible for special

education; any accommodations and related services provided to a student are included as part of an eligible student's IEP.

### 16. Who Can Administer Glucagon To A Student In A School Setting?

A licensed nurse (RN, ARNP or LPN), PDA, or parent/guardian/family may administer injectable glucagon. The administration of injectable Glucagon cannot be delegated by the school registered nurse to unlicensed school staff even with an auto-injector. Intranasal glucagon, a nasal spray, may be delegated to unlicensed school staff.

### 17. What Will Happen If A Disaster (I.E., An Earthquake) Occurs While My Child Is At School?

The Washington State Military Department/Emergency Management Division recommends that schools in Washington develop a disaster plan for each of their buildings. Additionally, RCW 28A.320.125 directs local school districts to develop individual comprehensive safe school plans. These plans are to include prevention, intervention, all hazards/crisis response, and post crisis recovery. Students with special needs will require targeted planning. A disaster preparedness/three-day emergency readiness plan has been developed for students with diabetes. It outlines the supply and food needs and provides information about how to draw up and administer insulin. Parents are responsible for providing emergency food, insulin, and supplies for the disaster preparedness kit.

### 18. What Do I Do If My Child's Recess Or Physical Education (Pe) Class Comes Just Before Lunch?

Depending on what kind of insulin your child is on, they may need a small additional snack before exercise to prevent low blood sugar. An additional blood sugar test may be helpful as sometimes a little activity will bring them into the target range and decrease the need for lunchtime insulin. These preparations should be part of the student's IHP or Section 504 plan.

### 19. Can My Child Go To Their Neighborhood School?

Most likely yes. If your child's school is not staffed by a full-time nurse, the school district should not require your child to transfer to another school for diabetes care, if trained non-nurse school personnel could provide the diabetes care as a PDA and you provide consent to delegate care to a PDA. Note, however, like all students, students with diabetes may be required to attend a non-neighborhood school for reasons other than receiving diabetes care.

### 20. What If I Am Unhappy With Some Aspect Of My Child's IHP Or Section 504 Plan?

If you disagree with the accommodations in your child's Section 504 plan or feel your child has been discriminated against on the basis of a disability (diabetes), you may have several options to address your concerns.

Section 504 Coordinator: Each school district has an employee who is responsible for ensuring that the school district is complying with Section 504. You may want to discuss your concerns with the district's Section 504 compliance coordinator.

Once the district receives a complaint, the school district must investigate, and the superintendent must respond within 30 calendar days. If unsatisfied with the superintendent's decision, an appeal can be made to the school board, and, if still unsatisfied, a complaint may be filed with OSPI. This process, including timelines, is outlined on the OSPI Equity & Civil Rights website: http://www.k12.wa.us/Equity/Complaints.aspx. District complaint procedures are available in the district's nondiscrimination procedures.

District Due Process Hearing: The Section 504 regulations, like those under the IDEA, specifically provide for the right to an impartial hearing before a hearing officer with no professional or personal interest that would bias their judgment in the case (§ 104.35). Generally, it is not appropriate for a district employee to serve as the hearing officer. District complaint procedures may be available in the district's procedures relating to the education of students with disabilities.

Complaint with U.S. Dept. of Education, Office for Civil Rights (OCR): Anyone may contact the U.S. Department of Education's Office for Civil Rights. This agency investigates complaints of discrimination, including implementation of Section 504 plans in public schools. In general, complaints to OCR must be filed within 180 calendar days from the date of the alleged violation. How to file a complaint: http://www2.ed.gov/about/offices/list/ocr/docs/howto.html.

Complaint with U.S. Department of Justice (DOJ), Educational Opportunities Section: Anyone may file a complaint with the DOJ which enforces federal civil rights laws that prohibit discrimination on the basis of race, color, national origin, sex, disability, and religion in public schools. DOJ also has authority to investigate disability discrimination allegations in private elementary and secondary schools that do not receive federal financial assistance. How to file a complaint: https://www.justice.gov/crt/how-file-complaint.

### 21. Do Schools Need A Clinical Laboratory Improvement Amendments (CLIA) Certificate Of Waiver?

School district health services are considered a laboratory for the purpose of CLIA, if they or school staff are performing testing on body fluids (ex. blood, saliva, or urine) or other body materials for the purpose of providing information for the diagnosis, prevention, or treatment of disease or to make health assessments. For example, if school health personnel (registered nurse, licensed practical nurse, or unlicensed assistive personnel) are assessing students' blood sugar levels (blood) to determine the course of action to take (insulin dosage, grams of carbohydrates to eat, modify lunch or activity schedule, etc.) then they are considered a laboratory facility performing a laboratory test. It does not matter if the student is using their own equipment to perform the test. The test result (blood glucose level) is being used to determine treatment or what to do.

**22. Can The School District Require A Parent/Guardian To Provide Diabetes Care For Their Child Either During The School Day Or While Attending A School Sponsored Event?**

No. Schools have a legal obligation to provide the care and services needed for students with diabetes. However, districts may offer to hire parents to provide care for their own child in some cases. Districts should check legal counsel and their risk management provider if considering this.

**23. Should Students With Diabetes Be Allowed To Take An Exam At A Different Time Or Have Assignments Modified If Their Blood Glucose Levels Are Out Of Target Range?**

Yes. Section 504 allows for appropriate accommodations when a student is experiencing high or low blood sugar levels. Students should not be penalized but instead allowed to take the exam or make up the assignment at another time. Some tests such as the PSAT and SAT may require advance planning and additional documentation.

**24. What If My Insurance Will Not Cover Baqsimi Or Gvoke?**

The diabetes clinic should have someone in their office that knows how to file an appeal or pre-authorization for Baqsimi or Gvoke. A parent or guardian can also call the insurance directly and file a complaint/appeal. You must be really persistent. Some reasons the insurance should cover these are:

- The school does not have a full-time nurse and staff needs to be trained.
- The State of Washington does not allow delegation for piercing of the skin - we must have appropriate staffing for Glucagon injectables (Licensed nurses or PDAs).
- Alternate school settings such as extra-curricular activities, sports, and buses.

Additional Information:

- Baqsimi Contact for support: 800-545-5979 (LILLY) and website - www.lillypricinginfo.com
    - Baqsimi Copay card
- GVoke www.gvokeglucagon.com

# APPENDIX C: Sample Forms and Resources

This section includes links to various sample forms to help implement your district's diabetes management system. You may choose to revise forms to meet the specific needs of your district and/or community. If you have questions about the content of any form, consult with your district's legal advisor. Links to Sample Forms.

All forms included in the guidelines are samples and are used with permission of the authoring organization and are not endorsed or mandated by OSPI. Any sample contained in these guidelines should be approved by each individual school district's administration and/or board of directors as applicable.

## Checklists

School Nurse Checklist for Planning for a Student with Diabetes
Sample Nasal Spray Skills Checklist (OSPI)

### *Disaster Planning*

Using a lancet to obtain a drop of blood for blood glucose check:

- How to Use a Lancet Device | Loading a Lancet https://www.youtube.com/watch?v=hu0zf3vwgI4
- Using your OneTouch® Delica® Plus lancing device - YouTube

Using a Glucometer (blood glucose test):

Safe at School: Chapter 5 - Blood Glucose Monitoring - YouTube

Insulin Administration:

- Safe at School: Chapter 8 - Insulin by Syringe & Vial - YouTube
- Safe at School: Chapter 9 - Insulin by Pen - YouTube

# High Blood Glucose Plans

High Blood Glucose Emergency Action Plan - For a Student Who Uses Insulin Injections
High Blood Glucose Emergency Action Plan - For a Student Who Uses and Insulin Pump
High Blood Glucose (Hyperglycemia) Emergency Care Plan- for a student who uses INSULIN INJECTIONS

## Individual Healthcare Plan (IHP)

Diabetes Medical Management Plan (American Diabetes Association)
Section 504 Plan (American Diabetes Association)
Licensed Healthcare Provider (LHCP) Orders/ Diabetes Medical Management Plan
DMMP-updated-11-11-22.pdf (diabetes.org)

### *Low Blood Glucose Plans*

Low Blood Glucose (Hypoglycemia) Emergency Care Plan WITH & WITHOUT INSULIN PUMP
ADA Hypoglycemia Emergency Care Plan (for Low Blood Glucose) Helping the Student with Diabetes Succeed: A Guide for School Personnel - ndep-school-guide-hypo.pdf

# Miscellaneous

Meal Service for Students with Diabetes
Request for Special Dietary Accommodations (OSPI 2017)

Student Rights under Section 504

## Parent Designated Adult (PDA)

Skills Check for PDAs for Additional Care Authorized by Parent
**Model Voluntary Parent Designated Adult Notice of Intent**
**Model Designation of a Parent Designated Adult**

### *Training*

Employee Verification of Health Information Training
School Nurse Pump Training Skills Checklist school-nurse-pump-training.pdf (diabetes.org)

# APPENDIX D: Resources

OSPI does not endorse or support the information expressed in the following resources listed below. Some resources provide national level guidance and may not reflect Washington State school practice for managing diabetes in a school setting. School districts are responsible for policies that align with federal and state statutes.

## Accommodations

### *Accommodations for Children with Disabilities in the Child Nutrition Programs*

The purpose of this memorandum is to expand the list of acceptable medical professionals that may sign a medical statement for meal accommodations in the Child Nutrition Programs and recommend alternate foods for children whose disability restricts their diets.

PDF for Memo SP 32-2015 USDA Subject: Statements Supporting Accommodations for Children with Disabilities in the Child Nutrition Programs

# United States Department Of Agriculture (USDA) Memo Sp 32-2015: Statements Supporting Accommodations For Children With Disabilities In The Child Nutrition Programs

The purpose of this memorandum is to expand the list of acceptable medical professionals that may sign a medical statement for meal accommodations in the Child Nutrition Programs and recommend alternate foods for children whose disability restricts their diets.

PDF for Memo SP 32-2015 USDA Subject: Statements Supporting Accommodations for Children with Disabilities in the Child Nutrition Programs

Accommodating Children with Food and Nutrition Service Special Dietary Needs in the School Nutrition Programs Guidance for School Food Service Staff (2021)

**American Academy of Family Physicians (AAFP) Position Paper Cultural Sensitivity: The Importance of Cultural Sensitivity in Providing Effective Care for Diverse Populations**

For the full paper on AAFP Cultural Sensitivity: The Importance of Cultural Sensitivity in Providing Effective Care for Diverse Populations (Position Paper)

A Parent & Educator Guide to Free Appropriate Public Education (under section 504 of the Rehabilitation Act of 1973)

**United States Department of Education**

Section 504 of the Rehabilitation Act of 1973 (Section 504) Frequently Asked Questions (FAQs) US Department of Education Office for Civil Rights (OCR) Protecting Students with Disabilities.

## Bloodborne Pathogens Training

**Guidelines for Implementation of School Employee Training on HIV/AIDS and Other Bloodborne Pathogens (2011)**

PDF Guidelines for Implementation of School Employee Training on HIV/AIDS and Other Bloodborne Pathogens.

OSPI Bloodborne pathogens 8_2_22.pptx (live.com)

### *Cultural Competency Standards for Educators*

**Washington State Professional Educator Standards Board Cultural Competency Standards**

Describes expectations for Washington educators on equity in a multicultural society, statutory requirements, and support for reflective anti-bias work and working with a diverse community.

Cultural Competency Standards 2018.6.6.pdf - Google Drive

# Diabetes Device Manuals

- Omnipod Handbook
- Omnipod DASH Handbook

- T: slim User Guides
- Medtronic Devices User Guides
- Dexcom User Guides and Tutorials
- Freestyle Libre Video Tutorials

## Glucagon information

- Baqsimi: Glucagon nasal powder FDA approved for use in adults and children 4 years and
- older. It is absorbed without inhaling.
- Glucagen Hypo Kit: Glucagon injection.
- Gvoke HypoPen: Glucagon prefilled autoinjector FDA approved for those at least 2 years of age.
- Zegalogue: Glucagon injection.

### *Insulin Storage*

FDA: Information Regarding Insulin Storage and Switching Between Products in an Emergency | FDA

# Hypoglycemia

Hypoglycemia (Low Blood Glucose) Symptoms - Changing Life with Diabetes

## Laboratory Quality Assurance - CLIA Waiver

Washington State Department of Health Facility Glucose Testing Letter

Letter to facility administrators regarding frequently asked questions concerning blood glucose testing and medical testing waivers and resources.

### *Parent Designated Adult (PDA) Training*

Skills Check for PDAs for Additional Care Authorized by Parent version updates

# National And State Organizations

American Diabetes Association of Washington

- Fact Sheet: The Legal Rights of Students with Diabetes on Field Trips and in Extracurricular Activities
- Fact Sheet – Diabetes, Discrimination, and Public Places and Government Programs
- Diabetes Medical Management Plan (DMMP)
- Safe at School Program
- ADA Guidelines for Emergency Lockdown Preparation | ADA (diabetes.org)

Juvenile Diabetes Research Foundation

Helpful information and support through the JDRF Bag of Hope®.JDRF Bag of Hope® - Support for the Newly Diagnosed

## National Association Of School Nurses

- Diabetes Management in the School Setting (Position Statement 2017)
- Diabetes in Children NASN Resources

### *National Institute of Health - National Institute of Diabetes and Digestive and Kidney Diseases*

Helping the Student with Diabetes Succeed: A Guide for School Personnel. National Diabetes Education Program, September 2020.

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

# Office of Superintendent of Public Instruction (OSPI)

- Equity and Civil Rights Webpage
- Curriculum Standards for Developing Curricula to Train Parent Designated Adults (PDAs) Working with Students with Diabetes (2009)
- Guidelines for Medication Management in Schools (2022) Pages 34-35 Diabetes Medication
- Health services resources. Diabetes.
- Resources for Homeless Children and Youths.
- Staff Model for the Delivery of School Health Services (2000)
- OSPI Fall Virtual Training Series Section 504 Handout (www.k12.wa.us)

## Washington State Nursing Care Quality Assurance Commission

The Washington State Nursing Care Quality Assurance Commission's (NCQAC) authority includes issuing advisory opinions, interpretive statements, and other formal position statements. Statements and opinions do not change the law and are advisory only but may be helpful in the care planning process.

### *Record Retention*

## School Districts And Educational Service Districts Records Retention Schedule (2020)

Health Services Records Page 73

## Special Education

FAMILY/EDUCATOR GUIDE, WASHINGTON STATE SPECIAL EDUCATION SERVICES
http://www.k12.wa.us/SpecialEd/Families/default.aspx.

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# LEGAL NOTICE



**NOTE**

- Communications will add the publication number.
- Review & Delete Note to Author Section

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