

# **Guidelines for Training School Employees who are not Licensed Healthcare Professionals**

to implement

## **House Bill 984 (79<sup>th</sup> Legislative Session)**

related to the

### **Care of Elementary and Secondary School Students with Diabetes**

Developed July 2005 by the Texas Diabetes Council with the assistance of:

Texas School Nurse Organization (TSNO)  
American Diabetes Association (ADA)  
Juvenile Diabetes Research Foundation (JDRF)  
American Association of Diabetes Educators (AADE)  
Texas Nurses Association (TNA)  
Texas Education Agency (TEA)  
DSHS School Health Program

See updates at [www.texasdiabetescouncil.org](http://www.texasdiabetescouncil.org)

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Texas Board of Nursing (BON)

## **Training Guidelines to Implement House Bill 984 Care of Students with Diabetes**

### **Introduction**

House Bill (HB) 984 requires that the Texas Diabetes Council (Council), with the assistance of key organizations, develop guidelines for training unlicensed school employees to serve as diabetes care assistant(s). Schools are not required to develop a unique curriculum, as there are resources available that cover the didactic training components delineated in the bill. The specific materials, which appear below in the “Training Materials” section of this document, have been developed by national organizations, i.e., the National Diabetes Education Program (NDEP), and the American Diabetes Association (ADA) and by private vendors.

### **Background**

HB 984 amends the Health and Safety Code and requires that in each school in which a student with diabetes is enrolled, the school principal shall:

- seek school employees who are not health care professionals to serve as unlicensed diabetes care assistants (UDCAs) and care for students with diabetes, and
- make efforts to ensure that the school has at least one UDCA if a full-time school nurse is assigned to the school, and at least three UDCAs if a full-time school nurse is not assigned to the school.

The law recognizes the roles of the principal, school nurse (when available), and school employees as well as those of the student’s physician and parent/guardian.

Sec. 168.006, Health and Safety Code, requires a school district to provide to each district employee who is responsible for providing transportation for a student with diabetes or supervising a student with diabetes during an off campus activity a one-page information sheet that

- identifies the student who has diabetes;
- identifies potential emergencies that may occur as a result of the student’s diabetes and the appropriate response to such emergencies; and
- provides the telephone number of a contact person in case of an emergency involving the student with diabetes.

The school shall permit a student to attend to his/her own care as outlined in the individual health plan, which may include

- checking and/or monitoring blood sugar/glucose levels;
- administering insulin in accordance with the diabetes management and treatment plan;

- managing low and high blood sugar/glucose levels as quickly as possible;
- carrying necessary diabetes supplies and equipment; and
- performing this self-care in the classroom or any location at school.

Council recommends that the school principal, school nurse, faculty and UDCAs should also be informed about provisions in the law that support students' developmentally-appropriate self-care (monitoring and treatment) per Sec.168.008, Health and Safety Code.

In-service education may be offered to any faculty and staff who have a student with diabetes in their classes, under their supervision or at school-sponsored functions.

### **Guidelines for Training Non-Medical Employees as Unlicensed Diabetes Care Assistants**

The school principal seeks school personnel appropriate to be trained to assist students with diabetes if/when a school nurse is not available. At least three persons should be trained for each school that does not have a full-time school nurse, and at least one person should be trained if the school has a full-time school nurse.

The school nurse usually does not directly supervise school staff other than health clinic assistant(s). Sec. 168.004(b), Health and Safety Code, recognizes that the school principal is responsible for school employees' assignments and performance. The school nurse, if assigned to the school, will coordinate and may provide the direct training.

In schools that do not have a school nurse, the principal assures that training is provided by a health care professional with expertise in diabetes care.

### **Training Content**

Training curriculum and teaching methods for preparing UDCAs should include both knowledge and skills components. Both a written test and a skills check should be included, and the learner must pass both in order to be designated as an unlicensed diabetes care assistant. A copy of the training guidelines, test and skills check results, and a record of staff training must be maintained by the school nurse or principal.

Content shall include, at a minimum, the following elements so that the learner

- 1) understands the essential elements of the Individual Health Plan (IHP);
- 2) recognizes the signs and symptoms of low blood sugar/glucose (hypoglycemia) and high blood sugar/glucose (hyperglycemia) levels;
- 3) understands and knows how to take or help the student take proper action

- if the blood sugar/glucose and/or urine ketones are outside the range indicated by the student's diabetes management and treatment plan;
- 4) performs or assists a student with monitoring of blood sugar/glucose and/or urine ketones using a monitor provided by the student's family and/or urine testing strips for ketone evaluation and recording the results in the designated record;
  - 5) knows how to safely and properly administer insulin and glucagon according to the student's diabetes management and treatment plan and individual health plan and knows how to record the action in the designated record;
  - 6) knows and recognizes the signs and symptoms and blood sugar/glucose levels that require emergency assistance and knows how to take proper action;
  - 7) knows and understands the nutritional needs of students with diabetes, including but not limited to, the need for regular meals, how snacks are utilized in the daily regimen of children with diabetes, how exercise affects blood sugar/glucose, and how changes in schedules, such as illness, tests and field trips, can affect children's nutritional needs; and
  - 8) knows when to call the parent(s), a health care professional and/or 911 for help.

## **Training Resources**

### **Helping the Student with Diabetes Succeed: A Guide for School Personnel**

prepared by a panel of organizations and published by the National Diabetes Education Program. The manual can be accessed on the following web link: <http://ndep.nih.gov/hcp-businesses-and-schools/Schools.aspx>.

The comprehensive guide provides a framework for supporting students with diabetes with an optimal team approach. It has copy-ready sample action plans and includes the following topics:

#### *Diabetes Primer*

- Overview of type 1 and type 2 diabetes basics
- Effective diabetes management in schools
- How a school can plan and implement effective diabetes management
- Why diabetes self-management is important
- Why diabetes management training is essential for school personnel

#### *Responsibilities of School Personnel:*

- School District Administrator
- Principal, School Administrator, or Designee
- School Nurse (Registered Nurse)

#### *Trained Diabetes Personnel*

- Teachers

Coaches and Physical Education Instructors  
Food Service Managers, Lunchroom Staff or Monitors  
Bus Drivers  
Guidance Counselors or School Psychologists

*Responsibilities of the Parents and/or Guardians and Student*

*Sample Medical Management Plans and Individualized Emergency Plans*

*Applicable Federal Laws*

Section 504 of the Rehabilitation Act of 1973  
Americans with Disabilities Act of 1990  
Individuals with Disabilities Education Act (IDEA)

**Diabetes Care Tasks at School: What Key Personnel Need to Know** is a PowerPoint program with eight training modules developed by the American Diabetes Association. The modules are intended to be used by a trainer who is a school nurse or a health care professional with expertise in diabetes care in order to train other nurses and staff members about diabetes care tasks at school. The modules are available at [www.diabetes.org/schooltraining](http://www.diabetes.org/schooltraining). The modules can be used in conjunction with Helping the Student with Diabetes Succeed: A Guide for School Personnel.

### **Training for School Nurses**

#### **Helping Administer to the Needs of the Student with Diabetes in School (H.A.N.D.S.)**

H.A.N.D.S. is a live continuing education full day program developed by the National Association of School Nurses (NASN) for school nurses to equip the school nurse with current diabetes knowledge, and provide tools and resources to facilitate effective diabetes management for students at school. It is presented by a School Nurse with a specific interest in diabetes and a Certified Diabetes Educator.

For more information, contact NASN at [www.nasn.org](http://www.nasn.org).

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The **Texas Diabetes Council Diabetes Tool Kit** and the **Department of State Health Services School Health Manual** provide information and guidance for

professional nurses as well as educational handouts for use in training.

Tool Kit link:

[www.texasdiabetescouncil.org/healthcareprofessionals/diabetrestoolkit](http://www.texasdiabetescouncil.org/healthcareprofessionals/diabetrestoolkit)

School health manual link:

[www.dshs.state.tx.us/schoolhealth/pgramguide.shtm](http://www.dshs.state.tx.us/schoolhealth/pgramguide.shtm)

### **Training for School Personnel and School Nurses**

**Diabetes Care at School: Bridging the Gap** is an online education program for all school staff, including teachers, principals, coaches, UDCAs, administrative personnel and nurses. Nurses that complete the course will obtain Continuing Nursing Education (CNE) credit hours.

Schools can purchase the product and obtain a user account to log on. Participants can log on 24/7 to complete the 12-module course. Each module has objectives, training material and a Summary Sheet. At the end of the program, a certificate of completion is issued as well as CNE credits for LVNs and RNs.

For more information, contact the website at [www.SalusEducation.com](http://www.SalusEducation.com)

### **Training Guidelines for Schools that have a School Nurse**

Professional school nurses act within the scope and standards of their practice. A school nurse usually does not directly supervise school staff other than health clinic assistant(s). Sec. 168.004(b), Health and Safety Code, recognizes that the school principal is responsible for school employees' assignments and performance. However, a school nurse may provide training, if qualified, and will coordinate training for unlicensed personnel.

Staff must pass knowledge and skills tests in order to be identified as UDCAs. The school principal supervises staff that act as UDCAs.

The school nurse or school principal will maintain a copy of training guidelines and any records associated with training, as required by Sec. 168.005(e), Health and Safety Code.

### **Training Guidelines for Schools that do not have a School Nurse**

A school that does not have an assigned school nurse will have to arrange for training by a health care professional that has expertise in diabetes care as required by Sec. 168.005(c), Health and Safety Code. The principal or designee could contact the student's diabetes care physician to identify a health care professional with expertise in the care of youth with diabetes and who could provide training. The physician or provider could identify who trained the parents



in caring for their child or who trained the youth in self-management, particularly for students who use an insulin pump.

A healthcare professional may be available from a(n):

- community hospital diabetes program;
- American Diabetes Association (ADA) – recognized diabetes education program;
- children’s hospital specialty care center diabetes program; or
- area chapter of the American Association of Diabetes Educators (AADE).
- a regional Education Service Center (ESC) school health specialist;
- a local health department;
- a regional public health service nursing office;
- a community-based organization that offers diabetes education; or
- a federally-qualified community health center (FQHC).

Staff must pass knowledge and skills tests in order to be identified as UDCAs. The school principal supervises staff that act as UDCAs.

The school nurse or school principal will maintain a copy of training guidelines and any records associated with training, as required by Sec. 168.005(e), Health and Safety Code.

The school principal supervises staff that acts as unlicensed diabetes care assistants.

### **Suggestions for Obtaining Training Supplies**

Schools may be able to obtain training supplies from the following sources:

- pharmacies;
- manufacturers of diabetes products and supplies;
- local health departments;
- parent donations, especially expired glucagon kits;
- physician’s offices;
- hospitals; and
- clinics.

### **Sample Tasks & Skills Checklist for UDCAs**

School nurses/qualified trainers assess skills as part of the initial training as well as during any subsequent training. The school nurse can use this checklist for initial, annual and periodic reviews during the school year.

#### **Individual Health Plan**

Read and understand each step

Identify signs of high and low blood sugar/glucose levels

Describe actions to be taken  
Help a student respond to high and low sugar/glucose levels  
Know when and who to contact for information or help (parent, student's physician, and emergency medical services)

### **Testing**

Use blood glucose monitor(s) furnished by the student(s)  
Calibrate equipment  
Check urine ketone level  
Record results and know what action is indicated

### **Insulin Administration**

Demonstrate aseptic and sterile techniques  
Use insulin syringes, pens, or other delivery devices  
Prepare a correct dose  
Inject subcutaneous (SQ) insulin  
Record action (time, dose, site) and any student observation

### **Insulin Pump**

Recognize proper attachment  
Know how to disconnect the pump when indicated  
Know how to administer a bolus dose of insulin  
Recognize signs of malfunction and what to do in the event of a problem  
Know how to change the infusion set, if the order is included in the diabetes management and treatment plan

Note: Specific training by a healthcare professional that works with the specific pump and written directions from the manufacturer is warranted. Parent participation in this instruction is recommended.

### **Glucagon administration**

Know when to administer glucagon and call for emergency help  
Prepare medication using diluent  
Calculate the proper dose, as ordered by an authorized healthcare professional  
Record action and blood sugar/glucose test results

### **Universal Precautions**

Staff and students with diabetes need to adhere to the district or school policy that addresses universal precautions to prevent potential needle stick injuries and potential infection. The school or district policy should be

consistent with standard Universal Precautions and local waste-disposal laws. Local waste disposal laws vary from community to community.

The Coalition for Safe Community Needle Disposal\*\* is working with the U.S. Environmental Protection Agency (EPA) to evaluate and promote safe disposal of needles and other medical sharps.

The Coalition has identified several types of safe disposal programs for self- injectors. Instead of placing sharps in the trash, self-injectors are encouraged to use any of these alternative disposal methods:

***Drop Box or Supervised Collection Sites***

Sharps users can take their own sharps containers filled with used needles to appropriate collections sites: doctors' offices, hospitals, pharmacies, health departments, or fire stations. Services are free or have a nominal fee. Check with pharmacists or other health care providers for availability in your community.

***Mail-Back Programs***

Sharps users place their used sharps in special containers and return the container by mail to a collection site for proper disposal. This service usually requires a fee. Fees vary, depending on the size of the container. Check with your health care provider, pharmacist, yellow pages, or search the Internet using keywords "sharps mail back."

***Syringe Exchange Programs (SEP)***

Sharps users can safely exchange used needles for new needles. Contact the North American Syringe Exchange Network at (253) 272-4857 or online at [www.nasen.org](http://www.nasen.org).\*\*

***At-Home Needle Destruction Devices***

Several manufacturers offer products that allow you to destroy used needles at home. These devices sever, burn, or melt the needle, rendering it safe for disposal. Check with your pharmacist or search the internet using keywords "sharps disposal devices." The prices of these devices vary according to product type and manufacturer.

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**Skills check**

UDCAs should receive hands-on training in the skills listed above (pp. 9-11) and should be able to demonstrate that they can successfully perform the tasks correctly three times.

### **Periodic skills check**

Council recommends that unlicensed diabetes care assistants demonstrate competency throughout the school year. Since they are considered members of the care team, they also need to be informed of any changes in the diabetes management and treatment plan or in the individual health plan as they occur.

### **Training Updates**

The Council recommends review of didactic information and review of skill at least annually. The reviews will vary from campus to campus, and the school nurse/qualified trainer will have to assess what topic areas/hands-on skills need to be covered. A review of didactic materials and hands-on skills can be done together or singly, depending on the need of the UDCAs. School nurses/qualified trainers can use the training materials previously identified.

School nurses/qualified trainers may wish to gather a group of UDCAs and have them share experiences. They will benefit from hearing how others handled specific students/families/situations. Materials would be reviewed and hands-on skills checks would be performed to address the gaps/needs that have been identified.

Below are four options for conducting an annual review of knowledge and skills.

#### **Option 1**

Step 1: UDCAs complete a written test.

- A passing score (78%) allows the already-trained UDCA to proceed directly to Step 2.

**Note: 25 questions must be answered correctly in order to obtain a passing score of 76%.**

- A failing score (less than 78%) requires classroom education/didactic training.

Note: Only a passing score will permit the UDCA to continue to the hands-on skill demonstration.

Step 2: Already-trained UDCAs must demonstrate success at tasks and skills identified in the Sample Tasks and Skills Checklist for UDCAs (see page 9).

- Successful demonstration of the above-mentioned skills completes the annual update training.
- Unsuccessful demonstration of the above-mentioned skills requires additional hands-on training until successful skills are observed.

Step 3: Training records should be forwarded to the site where the original training records are maintained.

## Option 2

Step 1: Already-trained UDCA's must demonstrate success at tasks and skills identified in the Sample Tasks and Skills Checklist for UDCA's (see page 9).

- Successful demonstration of the above-mentioned skills qualifies the UDCA to proceed to Step 2.
- Unsuccessful demonstration of the above-mentioned skills requires additional hands-on training until successful skills are observed.

Note: Only successful return demonstration will permit the UDCA to continue to the written test.

Step 2: Participants complete a written test.

- A passing score (78%) completes the annual update training.

**Note: 25 questions must be answered correctly in order to obtain a passing score of 78%.**

- A failing score (less than 78%) requires classroom education/didactic training.

Step 3: Training records should be forwarded to the site where the original training records are maintained.

## Option 3

Step 1: Trainers conduct a brief overview of the following:

- the school's responsibilities in the care of a student with diabetes & the use of the diabetes management and treatment plan (DMTP);

- the symptoms of hypo- and hyperglycemia;
- steps to take if blood glucose values are out of the range identified in the individual health plan (IHP) and DMTP;
- understanding the IHP and DMTP;
- complications that require emergency assistance;
- recommended schedules and food intake for meals & snacks;
- the effect of physical activity on blood glucose levels; and
- proper actions to be taken if a student's schedule is disrupted.

Step 2: Participants complete a written test.

- A passing score (78%) allows the already-trained UDCA to proceed to Step 3.

**Note: 25 questions must be answered correctly in order to obtain a passing score of 78%.**

- A failing score (less than 78%) requires classroom education/didactic training.

Note: Only a passing score will permit the UDCA to continue to the hands-on skill demonstration.

Step 3: Already-trained UDCAs must demonstrate success at tasks and skills identified in the Sample Tasks and Skills Checklist for UDCAs (see page 9).

- Successful demonstration of the above-mentioned skills completes the annual update.
- Unsuccessful demonstration of the above-mentioned skills requires additional hands-on training until successful skills are observed.

Step 4: Training records should be forwarded to the site where the original training records are maintained.

#### **Option 4**

Step 1: Trainers complete a UDCA annual review assessment (sample below)

Step 2: Training covers only those areas that already-trained UDCAs identify as problematic or express needing additional training.

Step 3: Participants complete a written test.

- A passing score (78%) allows the already-trained UDCA to proceed to Step 4.

**Note: 25 questions must be answered correctly in order to obtain a passing score of 78%.**

- A failing score (less than 78%) requires classroom education/didactic training.

Note: Only a passing score will permit the UDCA to continue to the hands-on skill demonstration.

Step 4: Already-trained UDCAs must demonstrate success at tasks and skills identified in the Sample Tasks and Skills Checklist for UDCAs (see page 9).

- Successful demonstration of the above-mentioned skills completes the annual update training.
- Unsuccessful demonstration of the above-mentioned skills requires additional hands-on training until successful skills are observed.

Step 5: Training records should be forwarded to the site where the original training records are maintained.

### UDCA Annual and/or Periodic Review Assessment

**Please indicate below the topic areas for which you need training or for which you would like to receive additional information:**

- requirements of HB 984
- diabetes management and treatment plan
- individual health plan
- recognizing symptoms of hypoglycemia
- recognizing symptoms of hyperglycemia
- understanding proper action to take if a student's glucose level(s) are out of range
- performing finger sticks/glucose checks using a glucose meter
- checking urine for ketones
- documentation
- administration of insulin
- administration of glucagon
- recognizing complications that require emergency assistance
- understanding meal plans, snacks
- understanding effects of physical activity on blood glucose levels
- what to do when a student's schedule is disrupted
- how to assist with insulin pumps
- who to call in the event of an emergency
- how to access an individual with expertise in the care of persons with diabetes
- safe disposal of sharps
- other: \_\_\_\_\_
- other: \_\_\_\_\_
- other: \_\_\_\_\_



**Test for Unlicensed Diabetes Care Assistants**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Instructions: check only one answer for each question****Diabetes Basics**

1. Diabetes is:  
 a) an endocrine disorder in which either the pancreas no longer secretes insulin or the body does not use insulin properly  
 c) a disease of the liver  
 d) a disease of the gall bladder
2. The three main types of diabetes are:  
 a) type 1, type 2, and metabolic syndrome  
 b) type 1, type 2, type A  
 c) type 1, type 2, and gestational diabetes  
 d) none of the above
3. The main function of the pancreas is to:  
 a) produce enough insulin to allow glucose to enter the body's cells  
 b) produce enough insulin to keep glucose values within a normal range  
 c) a and b
4. You can tell if a student has diabetes just by looking at him/her.  
 True                       False
5. Students with type 1 diabetes must take insulin  
 True                       False
6. Students with type 1 diabetes are  
 a) usually in the first grade  
 b) usually in middle school  
 c) any age
7. Students with type 2 diabetes may or may not take insulin  
 True                       False
8. Students with diabetes must check their blood glucose  
 a) three times a day  
 b) five times a day  
 c) four times at school and four times at home  
 d) as outlined in their medical management and treatment plan
9. Diabetes is managed by  
 a) following a recommended eating plan  
 b) taking medication as prescribed  
 c) getting physical activity  
 d) seeing a healthcare provider routinely  
 e) all of the above
10. The goal of good diabetes management is to:

- a) be as healthy as possible
- b) avoid the complications associated with diabetes
- c) fully participate in all academic and extracurricular activities
- d) keep blood glucose levels within an acceptable range
- e) all of the above

11. Physical activity can help to:

- a) control weight
- b) maintain cardiovascular fitness
- c) lower blood glucose levels
- d) increase insulin sensitivity
- e) all of the above

### Diabetes Management

12. Students with diabetes are required to have an individual health plan (IHP).

- True                       False

13. The IHP should include the following:

- a) a list of all the medicines the student is to take while at school
- b) a schedule of when medicines are to be administered
- c) doses of medicines that will be taken at school
- d) ranges of glucose values and steps to take when the values are out of range
- e) when and how often the student is to have snacks
- f) name and phone number of treating healthcare provider
- g) a, c, and d
- h) a, e, and f
- i) all of the above

14. Insulin may be administered by using

- a) insulin syringes
- b) an insulin pump
- c) insulin pens
- d) all of the above

15. Students with diabetes cannot eat foods with sugar.

- True                       False

16. Students with diabetes may dispose of their blood testing equipment

- a) by taking lancets home, using safe needle disposal recommendations
- b) by taking lancets to the nurse's office, using safe needle disposal recommendations
- c) by adhering to the district policy related to safe needle disposal
- d) by throwing away in the regular trash
- e) all of the above
- f) a, b, and c only

17. Symptoms of mild to moderate hypoglycemia may include:

- a) hunger
- b) headache
- c) dizziness
- d) excessive sweating

- e) trembling
- f) inability to concentrate
- g) confusion
- h) all of the above

18. Mild to moderate hypoglycemia is determined by:

- a) testing the student's blood glucose
- b) looking at the child and asking her/him how she/he feels

19. Mild to moderate hypoglycemia is treated by:

- a) eating
- b) administering insulin
- c) following the IHP
- d) a and c

20. Symptoms of severe hypoglycemia should be suspected if:

- a) the student collapses
- b) has a seizure
- c) a and b

21. Treating severe hypoglycemia should include:

- a) administering fast-acting glucose, if the student can swallow
- b) administering glucagon, if the student is unconscious
- c) a and b

22. Before and while engaging in physical activity, a student with diabetes should:

- a) monitor blood glucose levels before, during and after the scheduled physical activity
- b) adjust his/her insulin dose according to the IHP
- c) have a snack available as well as a source of fast-acting glucose to prevent an episode of hypoglycemia
- d) all of the above

23. Symptoms of hyperglycemia include:

- a) thirst
- b) increased urination
- c) drowsiness
- d) irritability
- e) ketones in the urine
- f) blurred vision
- g) all of the above
- h) a, b, and c only

24. Hyperglycemia is determined by:

- a) the student's appearance
- b) the student's blood glucose value

25. The treatment of hyperglycemia may include:

- a) administering insulin
- b) following the IHP
- c) a and b

**Diabetes and the Law**

26. The Texas Legislature passed House Bill 984 in 2005.

True  False

27. House Bill 984 amends the Texas Health and Safety Code.

True  False

28. The Texas Health and Safety Code (Chapter 168, Care of Students with Diabetes) requires public schools to

a) train unlicensed diabetes care assistants to care for students with diabetes in schools

b) allow students that can manage their diabetes during the school day to do so anywhere on campus or at a school-related activity

c) prepare an individual health plan for a student with diabetes whose family requests assistance with diabetes care while at school

d) a and c

e) a, b, and c

29. The Texas Health and Safety Code requires parents to come to school to care for their children who have diabetes.

True  False

30. The Texas Health and Safety Code requires that a student with diabetes go to the nurse's office to care for his/her condition.

True  False

31. Students with diabetes cannot participate in extracurricular activities

True  False

32. The Texas Health and Safety Code requires that all schools have a school nurse assigned to a campus.

True  False

**Note: 25 questions must be answered correctly in order to obtain a passing score of 78%.**

### Answers and Discussion Points

**Note: 25 questions must be answered correctly in order to obtain a passing score of 78%.**

#### Diabetes Basics

1. a  
Diabetes is a chronic endocrine disorder that is either the result of having no insulin production (type 1) or limited insulin production and/or impaired use of insulin (type 2)
2. c  
The three main types of diabetes are type 1(a condition in which the pancreas no longer secretes insulin), type 2 (a condition in which the pancreas does not secrete enough insulin or the body fails to utilize the insulin properly), and gestational diabetes (diagnosed during pregnancy in a woman with no diagnosis prior to the pregnancy). There are other types of diabetes, but they account for a small percentage of cases.
3. c  
The pancreas is a gland that produces insulin for glucose (sugar) absorption. Without insulin, glucose remains in the bloodstream and causes elevated glucose values; glucose values that are not in the normal range can cause damage to major organs and blood vessels.
4. False  
It is not possible to look at a person with diabetes and tell that they have the disease. The disease is diagnosed by a blood test.
5. True  
A person with type 1 diabetes (formerly called insulin-dependent diabetes) must take insulin, as their pancreas does not produce insulin.
6. c  
A person with type 1 diabetes can be any age; while most persons with type 1 diabetes are diagnosed before the age of 19, type 1 diabetes can be diagnosed at any age.
7. True  
A person with type 2 diabetes may be diet-controlled, may be taking oral medication, or may be on insulin.
8. d  
How often a person with diabetes checks his/her blood glucose (sugar) will vary depending on many factors: age, number of episodes of hypoglycemia, stability of blood glucose values during the day, as well as other considerations. A student with diabetes will have an order from a provider that will let school staff know the frequency with which the student will check his/her blood glucose levels while at school. The number of times and the time frames (e.g., before lunch, after lunch, before physical activity, during physical activity, and after physical activity) should be outlined in the IPA.
9. e  
Managing diabetes is accomplished by following a meal plan, knowing which foods elevate blood sugar, taking medications (both oral and injectable) as prescribed, getting physical activity, and seeing a healthcare provider routinely.
10. e  
The goal of diabetes management is to have acceptable glucose values (usually expressed as a range) during the day; other goals include being healthy overall, and avoiding the co-

morbid conditions associated with not being in control. Students with optimal management should participate fully in academic programs and extra-curricular activities.

11. e

Students with diabetes involved in physical activity during the school day benefit from the same advantages as anyone that participates in physical activity, such as weight control and cardiovascular fitness. A student with diabetes that exercises may have a decreased need for, or better utilization of insulin. Further, the most common problem encountered during physical activity is hypoglycemia.

### **Diabetes Management**

12. True

Students with diabetes are expected to have an IHP so that school staff can know how to best manage the student during the school day.

13. i

The IHP should include a list of all medications the student is taking, including a schedule for when the medications are to be administered, and doses of medications; ranges of acceptable glucose values during the day and what to do when the glucose values are not in that range; when and how often the student will have snacks; and the name and phone number of the treating healthcare provider.

14. d

Insulin is available in vials (for which insulin syringes must be used), in pens, and in cartridges (used in pumps and must be pre-loaded).

15. False

A person with diabetes can have foods that contain sugar, such as cookies, some breakfast cereals, and most desserts; a student that consumes sugar-containing foods should know how to count the carbohydrates in those foods and then adjust his/her insulin accordingly.

16. f

A student with diabetes must dispose of his/her sharps (including lancets, syringes, empty pens, insulin vials, insulin cartridges, and pump infusion sets) by following the school or district policy related to safe needle disposal and adhering to universal precautions. Some schools will allow a student to take supplies home and dispose of them, with the caveat that he/she must carry sharps in a safe container (such as a little glass jar with a lid or a plastic container with a lid). Some schools may require that a student dispose of sharps daily by taking sharps to the nurse's office or clinic on campus.

17. h

Mild to moderate hypoglycemia (low blood sugar) will cause a student to be hungry, dizzy, sweat, tremble, unable to concentrate, confused, and/or have a headache. During mild to moderate episodes of hypoglycemia, a student will be able to speak; however, the speech may be slurred.

18. a

While there are physical symptoms of hypoglycemia (trembling, sweating, confusion), the only way to definitively know if a student has mild to moderate hypoglycemia is to test the blood glucose. Students that can recognize hypoglycemia will probably have a snack. If the IHP requires that if this occurs a student must report this to the school nurse or UDCA, then the student shall tell the appropriate school staff so that the episode can be documented.

19. d

Mild to moderate hypoglycemia is treated by eating or having a snack.

20. c  
Severe hypoglycemia is usually suspected if a student collapses and/or has a seizure.
21. c  
The goal of reversing severe hypoglycemia is to raise the blood sugar immediately; this is accomplished by administering a fast-acting glucose source (if the student can swallow) or by administering glucagon (if the student cannot swallow or is unconscious).
22. d  
A student with diabetes that participates in physical activity should monitor his/her blood glucose prior to, during, and after exercising. Should the student have an episode of hypoglycemia, the student should have snacks available for moderate hypoglycemia as well as sources of fast-acting glucose in the event of severe hypoglycemia. Insulin doses prior to exercising would need to be adjusted according to the student's IHP.
23. g  
Symptoms of hyperglycemia include being thirsty, urinating more often, being drowsy, being irritable, having ketones in the urine, and having blurred vision.
24. b  
Hyperglycemia, just like hypoglycemia, cannot be ascertained by physical symptoms alone; to determine if blood glucose is elevated, the only way to know is to assess the blood glucose value.
25. c  
The appropriate way to treat hyperglycemia is to administer insulin; the appropriate dose, depending on the blood glucose value, will appear in the IHP.

### **Diabetes and the Law**

26. True  
HB 984 was passed in the 79<sup>th</sup> legislative session; the bill became effective May 23, 2005.
27. True  
HB 984 amended Subtitle H, Title 2, Texas Health and Safety Code by adding chapter 168.
28. e  
The Health and Safety Code requires public schools to train UDCAs to assist in caring for students with diabetes in schools, to allow students to self-manage their care anywhere on the campus during the day or at a school-related function, and to prepare an IHP for a student with diabetes so that school nurse(s) and/or UDCAs can follow the plan while caring for a student.
29. False  
The Health and Safety Code does not require that parents come to school to care for a student with diabetes. Chapter 168 requires schools to have trained staff available to care for a student with diabetes.
30. False  
The Health and Safety Codes does not require that a student go to the nurse's office to care for his/her condition. If the IHP specifies that a student with diabetes go to the nurse's office, and the parents have agreed, then that is permissible. However, a student that self-manages his/her care cannot be required to go to the nurse's office to have a snack, administer insulin, or check blood glucose values.

31. False

Students with diabetes are not limited in any way from participating in extracurricular activities; a student with diabetes may participate in sports, and other functions such as debate team, plays, band, and orchestra.

32. False

The Health and Safety Code does not address the issue of staffing schools with school nurses. The Health and Safety Code addresses the requirements that if a school has a school nurse, one UDCA needs to be trained, and if a school does not have a school nurse, 3 UDCA's need to be trained.

### Sample Format for Skills Check

Name of Individual being tested: \_\_\_\_\_

Name of Licensed person assessing competency: \_\_\_\_\_

Date(s): \_\_\_\_\_

### Skill Pass/Fail

#### Testing

Use blood glucose meter  
 Calibrate equipment  
 Check urine for ketones  
 Record results

#### Insulin delivery devices

Adhere to sterile technique  
 Use of insulin syringe and pen  
 Prepare a correct dose  
 Inject via subcutaneous route  
 Record time, dose, site

#### Glucagon administration

Prepare medication using diluent  
 Calculate proper dose  
 Record time, dose, site

#### Universal Precautions

Dispose of needles/sharps properly

#### Use of Individual Health Plan (IHP)

Able to locate IHP  
 Able to identify glucose ranges  
 Able to identify orders  
 Able to identify steps to implement orders

#### Pump Management

Able to identify individual pumps  
 Able to know what emergency supplies are needed (such as extra batteries)  
 Able to know how to quick release  
 Able to know how to bolus, if needed



## Glossary

**Bloodborne pathogens**--disease-causing microorganisms that are transmitted through blood and other bodily fluids

**Competency**—having adequate abilities/qualities to perform a particular task; having the capacity to function in a particular setting with a prescribed set of skills/tasks

**Curriculum**—a course or set of courses constituting an area of specialization; includes the content of course materials

**Diabetes Management and Treatment Plan**—the document that outlines physician's or provider's orders that are to be followed in the school setting

**Full-Time School Nurse**—a school nurse who is on a single campus 40 hours per week

**Guideline**—an outline of policy or conduct

**Healthcare professional with expertise in the care of persons with diabetes 168.005(c)**—an RN, MD, DO or certified diabetes educator (CDE) who has special skill or knowledge in caring for persons with diabetes

**Individual with expertise in the care of persons with diabetes 168.007(b)(1)**—an RN, MD, DO, licensed dietitian or certified diabetes educator (CDE) who has special skill or knowledge in caring for persons with diabetes

**Individual Health Plan**—the document developed by the school nurse and/or principal that outlines specific orders and tasks for the school nurse and/or school staff to implement in order to take care of a student with diabetes

**School Nurse**—a registered nurse who works in a school setting, as defined by Texas Administrative Code, §153.1021

**Training**—to teach so as to make fit, qualified, or proficient

**Universal Precautions**—steps taken by individuals to prevent exposure to bloodborne pathogens; can include wearing gloves and disposing of needles in appropriate receptacles

**Resources: Website links**

**Texas Diabetes Council/Program**

Texas Department of State Health Services  
1100 West 49th Street  
Austin, TX 78756  
1-888-963-7111  
[www.texasdiabetescouncil.org](http://www.texasdiabetescouncil.org)

**American Diabetes Association**

1701 North Beauregard Street  
Alexandria, VA 22311  
1-800-342-2383

**ADA position statement on care of students with diabetes:**

[www.diabetes.org](http://www.diabetes.org)

**ADA Diabetes Care Tasks Training Modules (Power Point)**

Diabetes Care Tasks at School: What Key Personnel Need to Know (power point)

<http://www.diabetes.org/advocacy-and-legalresources/discrimination/school/schooltraining.jsp>

**National Association of School Nurses**

[www.nasn.org/education/flyerpeds.pdf](http://www.nasn.org/education/flyerpeds.pdf)

**American Association of Diabetes Educators**

100 West Monroe Street, Suite 400  
Chicago, IL 60603-1901  
1-800-338-3633  
[www.aadenet.org](http://www.aadenet.org)

**Juvenile Diabetes Research Foundation International**

120 Wall Street, 19th Floor  
New York, NY 10005  
1-800-533-2873  
[www.jdrf.org](http://www.jdrf.org)

**Centers for Disease Control**

National Diabetes Education Program (NDEP), Helping the Student with Diabetes Succeed: A Guide for School Personnel

[www.ndep.nih.gov/diabetes/pubs/Youth\\_NDEPSchoolGuide.pdf](http://www.ndep.nih.gov/diabetes/pubs/Youth_NDEPSchoolGuide.pdf)

**Salus Education**

Diabetes Care Tasks at School: Bridging the Gap  
[www.SalusEducation.com](http://www.SalusEducation.com)

**Universal Precautions**

Safe Needle Disposal

[www.SafeNeedleDisposal.Org](http://www.SafeNeedleDisposal.Org)

**American Dietetic Association**

[www.eatright.org](http://www.eatright.org)

**Federal Legal Resources**

Office of Civil Rights (Section 504 and ADA information)

[www.ed.gov/ocr](http://www.ed.gov/ocr)

**Office of Special Education Programs** (IDEA information)

[www.ed.gov/offices/OM/fpco](http://www.ed.gov/offices/OM/fpco)

**Family Educational Rights and Privacy Act (FERPA) information**

[www.ed.gov/offices/OM/fpco](http://www.ed.gov/offices/OM/fpco)