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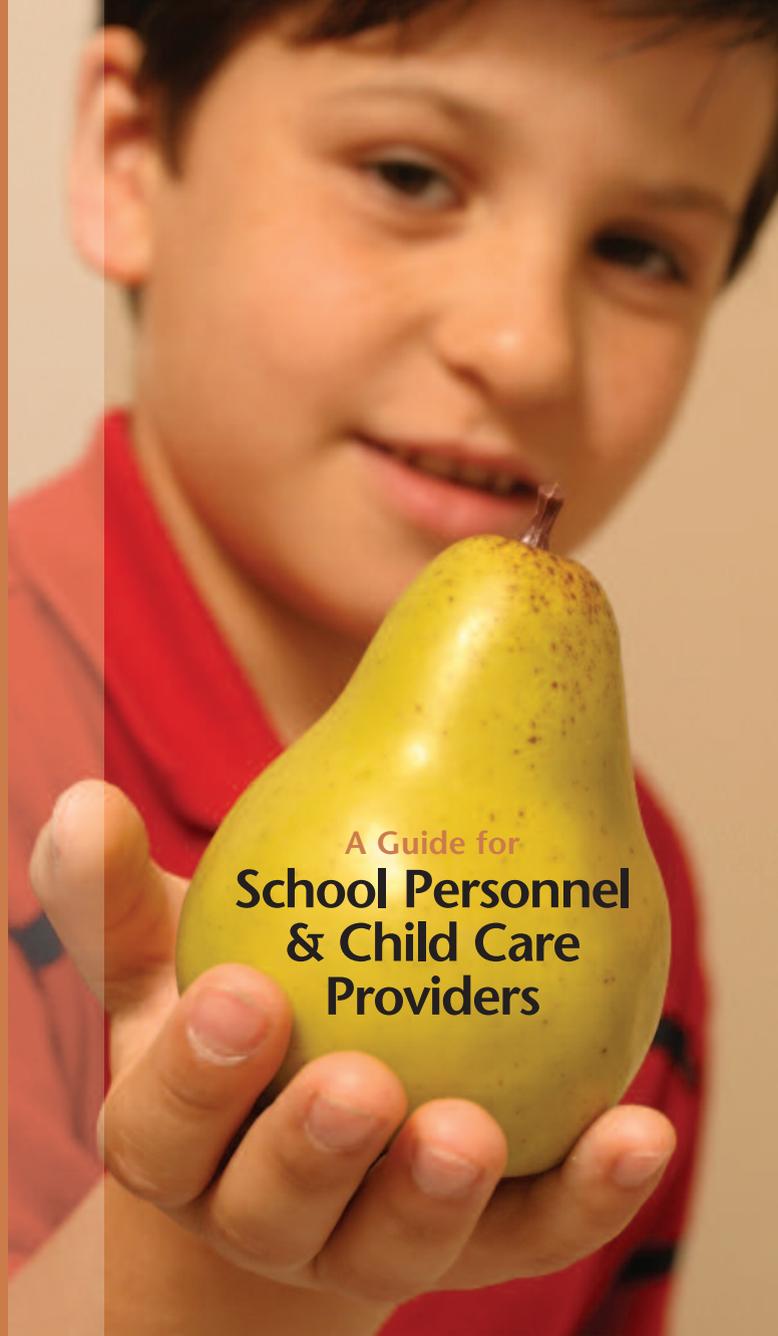
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A Guide for School Personnel & Child Care Providers

Facts About Diabetes



The Best Hope for a Cure®



Who Should Read This and Why

It is vital that school personnel, day care workers and baby sitters be knowledgeable about the basic facts of diabetes care and what to do in case of an emergency. This brochure can be a useful tool for all teachers, nurses, counselors, lunchroom staff, recreation leaders, hall supervisors, bus drivers and all those who may come in contact with children who have diabetes.

What is Diabetes?

Diabetes is not an infectious disease. It is a chronic condition which results from the body's inability to produce or effectively use its own insulin – a hormone which is needed to help convert sugar or food into energy.

There are two major types of diabetes. Children with diabetes usually have type 1 or insulin dependent diabetes. This form of diabetes results from the body's destruction of its own insulin-producing cells. Type 1 diabetes is treated with multiple insulin injections or an insulin pump (see image above). The pump is an insulin-delivering device, often worn attached to a belt. It can easily be mistaken for a beeper or a cell phone.

The most common type of diabetes is type 2 or "adult onset" diabetes, which usually develops in people over 40, who are overweight and have a family history of the disease. Today, however, more children are being diagnosed with type 2. This form does not typically require insulin injections, but is managed with oral medications.

Although diabetes cannot yet be cured, it can be effectively managed by monitoring blood sugar levels and balancing insulin injections or oral medications, with individual meal planning and exercise. Children with diabetes can participate in all organized activities and should not be excluded due to this medical condition. It is important for personnel with oversight responsibility to meet with parents of children with diabetes to obtain more detailed information about each child's abilities and individual requirements. Communication and cooperation between the parents, children, and school personnel or child care providers can help each child have a positive and productive experience.

Symptoms of Diabetes

It is not uncommon for child care providers or school personnel to help in the diagnosis of diabetes. The symptoms for uncontrolled or untreated diabetes are often the same and might include the following:

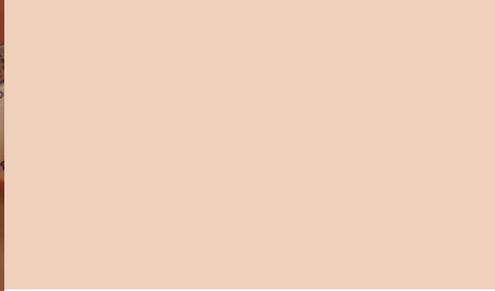
- *Frequent urination*
- *Unusual or excessive thirst*
- *Rapid and unexplained weight loss*
- *Extreme weakness or fatigue*
- *Nausea, vomiting and abdominal pain*
- *Infections or sores that are slow to heal*
- *Unusual or unexplained irritability*
- *Unusual or uncontrollable cravings for food*
- *Blurred vision*

Blood Testing

Many individuals with diabetes are encouraged to monitor their own blood sugar. To effectively control diabetes, it may be necessary to check blood sugar levels several times a day, often before eating meals and before, during or after physical activity. This is done with a lancet device (see image above) to prick the child's finger and a blood glucose meter. Younger children might require supervision or need to be assisted by a school nurse, while older kids are usually able to selfcheck.

Dietary Needs

Individuals with diabetes might follow a prescribed meal plan and may select their foods from a school or other lunch program menu, or they may choose to provide their own lunch. It is important to be aware of the child's dietary needs, which may include mid-morning or mid-afternoon snacks to help avoid insulin reactions. Diet is an essential component of any diabetes management plan. Adequate time should be provided for meals and snacks. Special occasions, such as a birthday party, can be planned for in advance. For example, extra insulin or increased physical activity can compensate for extra food.



Exercise and Sports

Children with diabetes should be allowed and encouraged to participate in physical education classes, after-school sports, and other exercise-related activities. Before, during and after any strenuous physical activity, they might need to monitor their blood sugar levels and possibly require a snack. A snack or some source of sugar should always be easily accessible to the child.

Insulin Reactions

Insulin reactions (hypoglycemia) occur when the amount of sugar in the blood is too low. This can be caused by an imbalance of insulin, omission of a prescribed meal or extraordinary activity with too little food. Under these circumstances, the body usually sends out warning signs which, if recognized early, can be treated with any form of sugar. Insulin reactions can occur in anyone with insulin-dependent diabetes and are not necessarily a result of carelessness. Insulin reactions are easily treated. However, if a reaction is not treated, unconsciousness or convulsions may result. In many cases, the child with diabetes will be able to recognize the warning signs and should be encouraged to report them to the appropriate person for immediate treatment. However, some children may not be capable of identifying the insulin reaction and will require immediate assistance.

Common Warning Signs of Insulin Reactions

People with diabetes may experience one or more of these symptoms that cannot otherwise be explained:

- Trembling
- Perspiring
- Pallor
- Poor coordination
- Lack of concentration
- Confusion
- Dizziness
- Irritability
- Nervousness
- Unusual actions or responses
- Blurred or double vision
- Crying
- Headache
- Nausea
- Drowsiness
- Fatigue

Please note: Treatment should be administered immediately. Insulin reactions will not improve without the child eating or drinking a food containing sugar. Do not send the child alone to receive treatment.

Treatment of Insulin Reactions

1. At the first sign of any of the warning signs, give sugar immediately in one of the following forms:

Sugar - 4 packets or 4 teaspoons

Fruit Juice - 4 ounces (1/2 cup)

Milk - (regular or low fat) 8 ounces (1 cup)

Soft drink - (Not diet) 6 ounces (1/2 of 12 ounce can)

Candy - 7 Lifesavers or 3 hard candies

While children may carry chocolate candy to treat hypoglycemia, it is not advisable since chocolate is slowly absorbed. It should only be used if no other form of sugar is available (1 ounce – check wrapper for ounces).

2. The student experiencing the insulin reaction may need coaxing or help to eat or drink.
3. If no improvement is seen within 15 - 20 minutes, repeat the feeding. If the student does not improve, the parents or physician should be called.
4. If the insulin reaction occurs more than one hour before the next regular meal, the student should be given additional food such as 1/2 sandwich or a glass of milk.
5. Regular activities may be resumed after the reaction is treated and symptoms have disappeared.
6. Insulin reactions should not occur frequently and parents should be advised of them.
7. If the child becomes unconscious, call 911.
Do not attempt to feed the child while unconscious.

Additional Resources and Links

Diabetes Research Institute

www.diabetesresearch.org

Children With Diabetes

www.childrenwithdiabetes.com

National Diabetes Education Program

www.ndep.nih.gov

American School Health Association

www.ashaweb.org



General Advice

Each child with diabetes may have a different view of his or her condition or capabilities. While some children may have good diabetes management skills and positive self-esteem, others may require assistance or not want to share information about their diabetes with other children. The emotional burden of feeling “different” may cause some children with diabetes to hide or avoid some aspects of their diabetes management when they are with their peers. Awareness of a child's individual needs and helping that child integrate the daily responsibilities of his or her diabetes with normal, everyday activities is vital for success and emotional well-being.

Diabetes is most effectively managed by constantly balancing the amounts and times of insulin injections, food and activity. If schedules are changed, adjustments in these three components will be necessary. Since exercise might lower blood sugar levels, it may be preferable to schedule physical education or recreation activities at the beginning of the day or after lunch. Many children with diabetes require additional food such as fruit or juice before strenuous exercise. Teachers, nurses, baby sitters or recreation leaders should have some form of sugar on hand to treat insulin reactions. Insulin reactions must be treated immediately.

A diabetic coma is a serious complication of diabetes which can result from prolonged high blood sugar or illness. This condition does not occur suddenly, and generally should not impact school personnel or child care providers. However, if the child is experiencing the extreme symptoms of uncontrolled or untreated diabetes, you should report these signs to the parent or physician (see Symptoms of Diabetes).

The guidelines listed herein are general and because every child with diabetes is unique, he or she may require more or less supervision. Discuss the child's individuality with the parents and obtain all pertinent information about his or her condition and needs.

“Facts about Diabetes: A Guide for School Personnel and Child Care Providers” was written by the clinical staff of the Eleanor and Joseph Kosow Diabetes Treatment Center at the Diabetes Research Institute.

Important Information

Child's Name

Parent's Name

Address

Phone Number

Contact in case of Emergency

Relationship

Phone Number

Name of Physician

Address

Phone Number

Treatment/Medications (i.e. injections, pump, etc.)

Signs/symptoms which student usually exhibits during an insulin reaction

Time of day reaction is most likely to occur

Most effective treatment

Type of morning or afternoon snack

Will student be monitoring blood sugar at school?

At what times?

Is supervision required?

Additional Information: