



# Diabetes in the Child Care Setting

## What is it?

Diabetes is a serious illness in which the body is unable to properly change sugar from food into energy. A simple sugar called glucose is the main source of energy for our body. Insulin, a hormone produced by the pancreas—a large gland behind the stomach—helps the body to use the glucose for energy.

Diabetes happens when the body does not produce enough insulin (Type 1 or insulin-dependent), or use it properly (Type 2 or non-insulin-dependent). As a result glucose begins to build up in the blood, creating high sugar levels in the body.

Children with diabetes usually have Type 1 diabetes, in which the body does not make insulin. They therefore need daily injections of insulin.

## Who gets it and how?

Approximately 127,000 American children, including 15,000 in California, have Type I diabetes. At some time, child care providers are likely to have a child with diabetes in their care.

Diabetes is not contagious. People cannot catch it from each other. At present, scientists do not know exactly what causes diabetes, but they believe that both genetic factors and viruses are involved. Diabetes can run in families.

## What are the symptoms?

Two kinds of problems occur when the body does not make insulin:

1. *Hyperglycemia, or high blood sugar*, occurs with both types of diabetes when the body does not have enough insulin. Symptoms include frequent urination, excessive thirst, extreme hunger, unusual weight loss, irritability and poor sleep, nausea and vomiting, and weakness and blurred vision.

2. *Hypoglycemia, or low blood sugar*, is more common in people with Type 1 diabetes. It is also sometimes called “insulin reaction” or “insulin shock.” Symptoms may include hunger, pale skin, weakness, dizziness, headache, shakiness, changes in mood or behavior (irritability, crying, poor coordination), sweating, and rapid pulse. Treatment commonly involves quickly restoring glucose levels to normal with a sugary food or drink such as cola, orange juice, candy, or glucose tablets.

If not treated properly, it can result in loss of consciousness and life-threatening coma.

## What factors affect blood glucose level?

The amount of blood sugar changes and can be affected by many factors such as diet, exercise, emotional stress, illness, and medicine.

Exercise helps to lower blood sugar. Regular exercise is important because of the need to balance the effect of exercise with food and insulin. If possible, the child should test blood glucose levels before taking part in a game or sport to determine when to eat a snack and how much food to eat.

Types, amount, and frequency of meals and snacks have different effects on blood sugar. Children with diabetes need special diets in reasonable amounts, and on regular schedules. Crackers with peanut butter or cheese, pretzels, apples, and juice make ideal snacks.

A child with diabetes may need to eat a snack before, during, or after energetic exercise.

Stress from a cold, sore throat, or other illness may increase the level of blood glucose.

## The law and diabetes

The Americans with Disabilities Act, a federal law, considers diabetes a disability, forbids discrimination against the disabled, and puts legal responsibility on child care providers to care for the special needs of children with diabetes.

Effective January 1, 1998, child care providers in California are allowed to perform a blood-glucose test (using a finger-stick test) on a child in their care. However, they are not required to give an insulin injection to any child in a child care facility.

## Blood glucose testing

Regular testing of blood glucose levels is a very important part of diabetes care. Testing is done by taking a drop of blood, usually from a finger, and placing it on a special test strip in a glucose meter. Glucose meters are easy to use, and most children quickly learn how to do their own blood glucose tests. A normal blood glucose level is between 70 and 120 mg/dl. Keeping blood glucose levels within this range is rarely possible in children with diabetes. A health care provider will often identify a target range for blood glucose levels – for example, 80 to 180 mg/dl.

## How is it managed?

Care for diabetes is more flexible than it used to be. It requires self care or assistance with care if the child is very young. Children with diabetes can participate in all child care activities. Except for paying attention to their special care plan, you do not need to treat them differently just because they have diabetes.

The goals for treatment of diabetes in children are to:

- Maintain normal growth and development
- Keep blood glucose levels within a target range (not too high, not too low)
- Promote healthy emotional well being.

Child care providers in coordination with parents and health care providers can prepare a special care plan to meet the special needs of children with diabetes, and help them lead healthy, active, and fulfilled lives without having to change their regular program. A written, special care plan should include:

- When to test blood glucose and take insulin
- Regular meal and snack times
- Preferred snacks and party foods
- Usual symptoms of hypoglycemia and preferred treatments
- When and how to notify the child’s parents of problems
- When and how to contact the child’s health care provider
- Who will give insulin injections when needed

Preschool-age children with diabetes often need frequent blood glucose tests because they have not yet learned to recognize the symptoms of low blood sugar, can’t tell what they feel, or may try to avoid or delay finger-prick and insulin injections. They may also drink and urinate a lot, so make sure they can go to the bathroom as often as they need.

Providers considering or already performing the finger-stick test must follow “universal precautions” at all times. For more information on diabetes, please call our toll-free

Healthline at 1-800-333-3212 or American Diabetes Association 1-800-DIABETES.

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## References

American Diabetes Association

Assembly Bill (AB) 221 Chapter 550, Statutes of 1997, Section 1596.797 of the Health and Safety Code.

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### Summary of key points

**Good diabetes care practices include:**

- eating reasonably, consistently, and on schedule
- testing blood glucose levels regularly
- adjusting insulin as glucose levels and activities warrant
- exercising regularly

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