HEALTH BASICS

Diabetes, type 1: children living with the disease

An explanation of daily care, safety, school, and family life for children with type 1 diabetes.

WHAT IT IS
Daily life and care for a child with type 1 diabetes

WHERE IT COMES UP
At home, school, activities, travel, illness, and clinic visits

WHY IT MATTERS
Supports safe insulin use, growth, learning, and everyday participation

WHAT IT IS NOT
Not a separate disease or diagnosis

WHO TO ASK
Paediatric diabetes team and school health staff

HOW IT IS CHECKED
Glucose monitoring, HbA1c, ketones, and scheduled complication screening

Overview

Type 1 diabetes is a disease. The immune system damages the cells in the pancreas that make insulin. Insulin is a hormone that helps glucose, a form of sugar, move from the blood into the body's cells for energy.

This article is not about a separate diagnosis. It explains what living with type 1 diabetes can involve for a child and family.

Children with type 1 diabetes need insulin every day. They also need regular glucose checks, plans for food and activity, and help responding to low or high glucose. Care continues at home, school, childcare, sports, holidays, and during illness.

The aim is not to produce perfect glucose numbers at every moment. Glucose changes for many reasons, including meals, growth, hormones, stress, activity, sleep, and illness. Children need practical support without being blamed for individual readings.

As children grow, they can learn more about their care. Adults still have an important role. How much a child can safely manage is based on their age, development, experience, and the situation-not age alone.

How it works

Insulin may be given through injections or an insulin pump. Some pumps connect to a continuous glucose monitor, or CGM, and automatically adjust some insulin delivery. These systems still require training, supplies, and attention from the child and supporting adults.

A CGM measures glucose in the fluid under the skin and shows its direction of travel. A finger-prick meter measures glucose in a drop of blood. A meter may be needed when a CGM reading does not match how the child feels, when the device is unavailable, or when the care plan calls for confirmation.

Food affects glucose, especially food containing carbohydrate. Carbohydrate counting helps match mealtime insulin to what the child plans to eat. This does not mean that every meal must be identical. The diabetes team can help the family use an approach suited to the child's age and insulin plan.

Activity often lowers glucose, but intense or competitive exercise can sometimes raise it for a while. Glucose may also fall during the night after activity. Plans for insulin, food, monitoring, and carrying fast-acting carbohydrate should be tailored to the child.

HbA1c is a blood test that reflects average glucose over roughly the previous two to three months. It does not show every high or low. Clinicians may review HbA1c together with CGM or meter records, growth, daily routines, and the child's wellbeing.

Why it matters for your health

Daily diabetes care helps a child grow, learn, play, and take part in family and school life. It also reduces exposure to glucose levels that are too low or too high.

A care plan should fit around the child's life where possible. Children should generally be supported to join school trips, physical education, sports, clubs, and social events. They may need trained adult help, access to monitoring equipment, time to eat or treat low glucose, and permission to use the toilet or drink water.

Type 1 diabetes can also affect emotional wellbeing. Constant decisions, alarms, appointments, and concern about glucose can be tiring. Some children may feel different from friends or worry about other people seeing their equipment. Families can also experience stress, sleep disruption, or conflict over diabetes tasks.

Routine diabetes appointments are a place to discuss these issues. Follow-up may include reviewing insulin and glucose patterns, checking growth and injection or device sites, and arranging age-appropriate screening for related autoimmune conditions and longer-term diabetes complications.

What can go wrong

Hypoglycaemia means glucose is too low. A child may become shaky, sweaty, hungry, pale, irritable, confused, or unusually quiet. Young children may not recognise or explain what is happening. Low glucose should be managed using the child's written plan.

Severe hypoglycaemia can cause a seizure, loss of consciousness, or inability to swallow safely. This is an emergency. Use prescribed emergency glucagon if it is available and you have been taught how, place the child safely on their side, and contact emergency services. Do not give food or drink by mouth to an unconscious child.

Hyperglycaemia means glucose is too high. It may happen because of illness, missed or insufficient insulin, problems with a pump or infusion set, changes in food or activity, stress, or growth. Repeated high readings need review, but a single reading is not a judgement on the child or family.

A serious lack of insulin can lead to diabetic ketoacidosis , or DKA. The body produces acids called ketones because it cannot use glucose normally. Warning signs can include vomiting, abdominal pain, deep or rapid breathing, increasing sleepiness, dehydration, or fruity-smelling breath. High glucose with raised ketones also needs prompt action under the child's sick-day plan.

Seek urgent medical advice for persistent vomiting, rising ketones, difficulty keeping fluids down, or glucose that remains high despite following the correction plan. Call emergency services for severe breathing difficulty, collapse, marked confusion, or reduced consciousness.

Repeated injections or pump use in the same area can cause lipohypertrophy , which means thickened or lumpy tissue under the skin. This can make insulin absorption less predictable. Rotating sites and having them checked during routine appointments can help identify the problem.

Diabetes distress, anxiety, low mood, fear of low glucose, and concerns about eating or body image can interfere with care. These concerns deserve routine, non-judgemental discussion with the diabetes team. Any immediate risk of self-harm requires urgent help through local emergency or crisis services.

Over years, high glucose exposure can contribute to eye, kidney, nerve, and cardiovascular problems. These are conditions related to diabetes, not problems caused by the act of daily care. The diabetes team will advise when routine screening should begin.

What you can do

Keep the child's current diabetes plan available to everyone who may be responsible for them. It should explain routine insulin and monitoring needs, how to treat low glucose, when to check ketones, and who to contact.

Practical steps include:

Make sure school staff know that the child may need to check glucose, eat, drink, use the toilet, or give insulin without unnecessary delay. A child should not be expected to manage alone simply because they use a pump or CGM.

Contact the diabetes team during routine follow-up if there are repeated highs or lows, frequent overnight alarms, device or skin problems, difficulty managing school or sports, or distress around food and diabetes tasks. The team can look for patterns and adjust the plan without blaming the child.

There is nothing a family can do to make every glucose reading predictable. Keeping clear records, maintaining backup plans, and asking specific questions are more useful than aiming for perfection.

- Keep insulin, monitoring supplies, fast-acting carbohydrate, and backup equipment accessible
- Check expiry dates and replace used emergency supplies
- Ask for written sick-day and pump-failure instructions
- Record recurring glucose patterns rather than focusing on one reading
- Arrange a school or childcare plan with trained staff
- Tell activity leaders where emergency supplies are kept
- Ask when ketones should be checked and what result requires help
- Bring device reports or glucose records to routine appointments
- Ask how care responsibilities should change as the child grows

Common questions

Can a child with type 1 diabetes eat ordinary food?

Usually, yes. Meals and snacks need to be considered within the child's insulin and carbohydrate plan. Food should not be used as a punishment or described as morally "good" or "bad." Fast-acting sugary food or drink also has a specific role in treating low glucose.

Can the child take part in sports?

Most children can take part with planning. They may need glucose checks, insulin or food adjustments, and readily available treatment for low glucose. Coaches or supervising adults should know the child's plan and recognise an emergency.

Does a CGM replace all finger-prick checks?

Not always. A blood glucose meter may still be needed if readings do not fit the child's condition, during some rapid glucose changes, or when the sensor is not working. Follow the instructions for the child's device and care plan.

Should children manage their diabetes themselves?

Responsibility should increase gradually. Even capable children and teenagers may need reminders, practical help, and adult backup, especially during illness, overnight, or in unfamiliar settings.

When is follow-up urgent rather than routine?

Repeated patterns, school difficulties, and equipment concerns can usually be discussed with the diabetes team through routine or same-day advice channels. Vomiting with ketones, inability to keep fluids down, severe hypoglycaemia, breathing difficulty, collapse, or reduced consciousness needs urgent or emergency action.

Sources

- National Institute for Health and Care Excellence. Diabetes (type 1 and type 2) in children and young people: diagnosis and management . NICE guideline NG18, published 2015 and updated 2023
- American Diabetes Association Professional Practice Committee. Children and Adolescents: Standards of Care in Diabetes-2024 . Diabetes Care, 2024;47(Supplement 1)
- International Society for Pediatric and Adolescent Diabetes. ISPAD Clinical Practice Consensus Guidelines 2022: Diabetes education in children and adolescents . Pediatric Diabetes, 2022
- International Society for Pediatric and Adolescent Diabetes. ISPAD Clinical Practice Consensus Guidelines 2022: Management and support of children and adolescents with diabetes in school . Pediatric Diabetes, 2022
- International Society for Pediatric and Adolescent Diabetes. ISPAD Clinical Practice Consensus Guidelines 2022: Exercise in children and adolescents with diabetes . Pediatric Diabetes, 2022

- Centers for Disease Control and Prevention. Managing Diabetes at School . CDC Diabetes, reviewed 2024