

# world diabetes day

14 November

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

A campaign led by the International Diabetes Federation

## The premier awareness campaign of the diabetes world

### **When does World Diabetes Day take place?**

---

World Diabetes Day takes place on 14 November every year. The date was chosen because it marks the birthday of Frederick Banting, who, along with Charles Best, is credited with the discovery of insulin. While many events take place on or around the day itself, a themed campaign runs throughout the year.

### **How did it all begin?**

---

World Diabetes Day was introduced by the International Diabetes Federation (IDF) and the World Health Organization (WHO) in 1991, in response to concern over the escalating incidence of diabetes around the world. Since then, the event has grown in popularity every year.

### **Where does it take place?**

---

World Diabetes Day is celebrated worldwide. It brings together millions of people in over 160 countries to raise awareness of diabetes, including children and adults affected by diabetes, healthcare professionals, healthcare decision-makers and the media. Numerous local and national events are organized by the member associations of the International Diabetes Federation and by other diabetes representative organizations, healthcare

professionals, healthcare authorities, and individuals who want to make a difference. World Diabetes Day unites the global diabetes community to produce a powerful voice for diabetes awareness.

### **How is it marked?**

---

IDF member associations and partners develop an extensive range of activities, tailored to a variety of groups. Activities that are organized every year include:

- Walks and cycle rides
- Radio and television programmes
- Sports events
- Free screenings for diabetes and its complications
- Public information meetings
- Poster and leaflet campaigns
- Diabetes workshops and exhibitions
- Press conferences
- Newspaper and magazine articles
- Events for children and adolescents

For further information see section entitled 'Bring diabetes to light' (page 6).

## Is there a theme?

Each year World Diabetes Day highlights a theme related to diabetes. Topics covered in the past have included diabetes and human rights, diabetes and lifestyle, and the costs of diabetes. Recent themes include:

2004: Diabetes and Obesity

2005: Diabetes and Foot Care

2006: Diabetes in the Disadvantaged and the Vulnerable

In 2007 the decision was taken to spread campaign themes over a longer time period. The theme for World Diabetes Day 2007 and 2008 is Diabetes in Children and Adolescents. The theme for World Diabetes Day from 2009 until and including 2013 is Diabetes Education and Prevention.

The World Diabetes Day campaign in 2007 and 2008 aims to:

- Increase the number of children supported by the IDF Life for Child Program (see page 23)
- Raise awareness of the warning signs of diabetes (see page 11)
- Encourage initiatives to reduce diabetic ketoacidosis (see page 13) and distribute materials to support these initiatives
- Promote healthy lifestyles to help prevent type 2 diabetes in children (see page 25)

## The World Diabetes Day logo

The diabetes circle, the icon established by the IDF-led 'Unite for Diabetes' campaign, was adopted as the World Diabetes Day logo in 2007. The diabetes circle is a simple icon that can be easily adapted and used.

The significance of the symbol is overwhelmingly positive. Across cultures, the circle symbolizes life and health. The colour blue reflects the sky that unites all nations and is the colour of the United Nations flag. The blue circle signifies the unity of the global diabetes community in response to the diabetes pandemic.

Show your support for World Diabetes Day by using the logo as widely as possible. It can be downloaded from **[www.worlddiabetesday.org](http://www.worlddiabetesday.org)**



world diabetes day

14 November

*"The blue diabetes circle signifies unity in the global struggle to defeat diabetes."*

A close-up photograph of a red jacket with a zipper. A blue circular pin, the global symbol for diabetes, is pinned to the jacket. The text "No child should die of diabetes" is written in white cursive across the jacket.

No child should die of diabetes

**Show you care. Wear the diabetes pin to mark World Diabetes Day.**

The blue circle is the global symbol for diabetes.

Buy the pin online from the IDF shop and give life to a child with diabetes  
**[www.idf.org/shop](http://www.idf.org/shop)**

Income generated by sales of the diabetes pin is used to support children on the IDF Life for a Child Program. The Program provides life-saving diabetes supplies to children in developing countries ([www.lifeforachild.org](http://www.lifeforachild.org)).

## World Diabetes Day – A United Nations World Day

World Diabetes Day is now an official United Nations World Day. On 20 December 2006, the UN General Assembly passed resolution 61/225, which designated the existing World Diabetes Day as an official world day beginning in 2007. This landmark resolution also recognized diabetes as “a chronic, debilitating and costly disease associated with major complications that pose severe risks for families, countries and the entire world.”

*“Diabetes poses severe risks for families, countries and the entire world.”*

The United Nations has shown its commitment to the fight against diabetes by throwing its support behind World Diabetes Day and by highlighting the global impact of the disease. The resolution marked the first time that a non-communicable disease was recognized as posing as serious a global health threat as infectious epidemics like malaria, tuberculosis and HIV/AIDS.

The passage of the resolution is a major achievement for all people living with or at risk of diabetes. However, it is just the first step in the struggle to reverse the diabetes epidemic and save lives.

Resolution 61/225 establishes the global agenda for the fight against the diabetes pandemic by encouraging all nations to develop national policies for the prevention, care and treatment of diabetes. The global diabetes community must remain united to make sure that all nations follow through on this commitment.

Over 250 million people are living with diabetes. Without concerted action to fight the disease, this figure will reach 380 million within a generation.

*“To do nothing is not an option.”*

Read the Resolution online at  
**[www.worlddiabetesday.org](http://www.worlddiabetesday.org)**



# Bring diabe

World Diabetes Day Monument Challenge 2007



tes to light!

## Bring diabetes to light

This World Diabetes Day, join the fun and help raise global awareness of diabetes.

There are many ways to join in:

- Get a local monument to participate in the World Diabetes Day monument challenge.
- Organize an event with local politicians to mark World Diabetes Day and draw attention to the theme.
- Organize or participate in a community activity such as a walk, cycle ride, a human circle event, or a school-based activity.
- Participate as an individual and lend your support to the global campaign.

However you decide to participate, we have the tools and information to help you.

Visit **[www.worlddiabetesday.org](http://www.worlddiabetesday.org)**

## How will you bring diabetes to light?

### The monument challenge

Last year, the global diabetes community rallied behind the call to light iconic landmarks and buildings in blue to mark World Diabetes Day. A total of 279 iconic monuments were lit in 2007 as beacons of hope for the millions of people

worldwide living with diabetes. A full list can be found on the World Diabetes Day website. This year, with your help, we aim to illuminate more than 500 monuments.

Visit [www.worlddiabetesday.org](http://www.worlddiabetesday.org) for more information and support material to help you light a monument near you.

### Engaging local politicians

Last year many individuals and organizations showed their support by seeking local, national and regional proclamations in support of World Diabetes Day. Political representatives around the world responded by issuing official statements in support of World Diabetes Day. Why not approach your local governmental representative for an official message of support? An official signing provides an ideal opportunity to support the official lighting of a local monument and other awareness-raising activities in your area.

### Community action

Each year, diabetes representative organizations, industry partners and committed individuals organize activities on or around World Diabetes Day. Typical activities include walks, cycle



rides, educational rallies and exhibitions. These activities can be linked to an official lighting and/or an official signing. Last year saw a number of human blue circles organized. It was a simple idea that had great visual impact. Share ideas and register your event through the World Diabetes Day website.

### **Individual action**

.....

Can't find an event near you but want to join in? Why not illuminate your home in blue or light a blue candle for World Diabetes Day?

Are you involved in an activity or project that would qualify for World Diabetes Day recognition? You could become one of the Official Friends of World Diabetes Day.

Individuals have shown their support by aligning their interests and activities to support the campaign. For example, there is a World Diabetes Day VW Beetle that races to raise awareness of diabetes, and there is a motorcycle enthusiast who crosses the desert on the World Diabetes Day bike. Why not suggest an activity for official World Diabetes Day endorsement?



However you choose to join the campaign, register your activity on the World Diabetes Day website so that we can count the global total of people who take part.

Help bring diabetes to light!

## What is diabetes?

Diabetes is a chronic condition that arises when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. Insulin is a hormone made by the pancreas that enables cells to take in glucose from the blood and use it for energy. Failure of insulin production, insulin action or both leads to raised glucose levels in the blood (hyperglycaemia). This is associated with long-term damage to the body and the failure of various organs and tissues.

There are two main types of diabetes:

### **Type 1 diabetes**

.....

Type 1 diabetes is an autoimmune disease characterized by the destruction of the insulin-producing cells in the pancreas. Consequently, people with type 1 diabetes produce very little or no insulin and must take insulin by injection or insulin pump to survive. There have also been recent advances in delivering insulin in other ways. Type 1 diabetes, which used to be called juvenile-onset diabetes, is most commonly diagnosed in children and young adults.

### **Type 2 diabetes**

.....

The development of type 2 diabetes is marked by insulin resistance. People with type 2 diabetes cannot use the

insulin that they produce effectively. They can often manage their condition through exercise and diet. However, in many cases oral drugs are needed and often insulin is required. Type 2 diabetes accounts for over 90% of the 246 million cases of diabetes worldwide.

Both type 1 and type 2 diabetes are serious and both can affect children. It is important to know the warning signs of diabetes.

### **Other types of diabetes**

.....

A third type of diabetes develops during some cases of pregnancy. Other rarer types of diabetes also exist.

Some children diagnosed with diabetes may have elements of both type 1 and type 2 diabetes. This phenomenon is often referred to as 'hybrid', 'mixed' or 'double' diabetes. It is linked to the rise of overweight and obesity in children and adolescents.

*"There is no such thing as mild diabetes."*

Maturity-onset diabetes of the Young (MODY) is a rare form of diabetes in children that is caused by a single gene that results in the faulty secretion of insulin. This form of diabetes is thought to account for up to 5% of all cases of diabetes in children. It often goes unrecognized.



## Is your child at risk?

### Know the diabetes warning signs\*

Frequent urination

Excessive thirst

Increased hunger

Weight loss

Tiredness

Lack of interest and concentration

Blurred vision

Vomiting and stomach pain (often mistaken as the flu)

\*In children with type 2 diabetes these symptoms can be mild or absent.

*"No child should die of diabetes."*

## The complications of diabetes

Diabetes is a chronic, life-long condition that requires careful monitoring and control. Without proper management it can lead to very high blood sugar levels. These are associated with long-term damage to the body and the failure of various organs and tissues. Complications include:

- Cardiovascular disease, which affects the heart and blood vessels and may cause fatal complications such as coronary heart disease (leading to a heart attack) and stroke.
- Kidney disease (diabetic nephropathy), which may result in total kidney failure and in the need for dialysis or kidney transplant.
- Nerve disease (diabetic neuropathy), which can ultimately lead to ulceration and amputation of the feet and lower limbs.
- Eye disease (diabetic retinopathy), characterized by damage to the retina of the eye which can lead to vision loss.

### **Diabetic Ketoacidosis**

---

Diabetic ketoacidosis (DKA) is a life-threatening consequence of untreated or poorly controlled type 1 diabetes. It occurs because there is low or no insulin available in the body to help the



organs and tissues take up glucose for energy. As a result the body breaks down its only alternative resource – fats. Breaking down fats produces acidic waste products called ketones, upsetting the chemical balance of the body. As ketones build up in the blood they cause the rapid breathing, increased heart rate, fruity-smelling breath, abdominal pain, vomiting, and tiredness that characterize diabetic ketoacidosis.

DKA is the leading cause of death and disability in children with type 1 diabetes around the world. If left untreated, it has a 100% death rate. Between 60% to 90% of all DKA-related deaths are a consequence of cerebral oedema, or swelling of the brain. It is a complication unique to children.



## Prevention of diabetic ketoacidosis

Ketoacidosis occurs in up to 40% of people newly diagnosed with type 1 diabetes. Severe acidosis often develops during an extended period in which symptoms related to high blood sugar are misdiagnosed. Recognizing these symptoms early can be enough to avoid the serious consequences of ketoacidosis.

*“Know the diabetes warning signs.”*

One of the most common misdiagnosed signs of type 1 diabetes is unusual bed-wetting. A prevention campaign carried out in one Italian province aimed to raise awareness of this and other warning signs of diabetes. Posters were displayed in schools and paediatricians' clinics. A toll-free telephone number was set up to facilitate contact between parents and diabetes healthcare professionals. Healthcare providers explained the aims of the campaign to teachers, who in turn were invited to show the posters to parents. The campaign lasted eight years. During this time, the frequency of ketoacidosis in the region decreased from 78% to 12.5%.



## Diabetes in children and adolescents

*“Diabetes affects children of all ages.”*

Diabetes is one of the most common chronic diseases of childhood. It can strike children of any age, including infants and toddlers. Yet diabetes in children is often diagnosed late, when the child has very high, potentially life-threatening, blood glucose levels. Sometimes it can be mistaken for something else, such as the flu.

In many parts of the world, insulin, which children with type 1 diabetes must take to survive, is not available because of cost or geography. As a result, many children die of diabetes, particularly in low and middle-income countries. In 2007 and 2008, World Diabetes Day aims to raise awareness of the rising prevalence of both type 1 and type 2 diabetes in children, and emphasize the importance of early diagnosis and education to reduce complications and save lives.



## A global epidemic

Today, there are more than 250 million people with diabetes worldwide. Within 20 years, this number is expected to grow to 380 million. Diabetes is a global epidemic with debilitating and life-threatening complications. Children and adolescents are not spared.

Type 1 diabetes is growing by 3% per year in children and adolescents, and at an alarming 5% per year among pre-school children. It is estimated that, worldwide, 70,000 children under 15 develop type 1 diabetes each year (almost 200 children a day). Of the estimated 440,000 children aged 14 or under with type 1 diabetes, over 25% live in South-East Asia, and more than 20% are in Europe.

*“Diabetes is increasing in children and adolescents.”*

The global incidence of type 2 diabetes in children looks likely to increase by up to 50% over the next 15 years. This form of diabetes was once seen as an adult-only disease. Today, it is growing at alarming rates in children and adolescents. In the United States, it is estimated

that type 2 diabetes represents up to 43% of newly diagnosed diabetes in some areas and accounts for 29% of diabetes in adolescents. In Japan, type 2 diabetes has doubled in children within the last 20 years and is now more common than type 1. In some Native and Aboriginal communities in North America and Australia, as many as one in 20 children have type 2 diabetes.

*“Children with diabetes can live full, healthy and productive lives.”*

Around the world, children with diabetes are under threat because of poor access to healthcare facilities, an inadequate supply of insulin and monitoring equipment, and a lack of trained healthcare providers. Additionally, in many countries, diabetes is still thought of as a disease that only affects adults. As a result, children with diabetes can often be diagnosed late, with potentially severe consequences, including death. These consequences are preventable. With appropriate care, access to medication, education and support, children with diabetes can live full, healthy and productive lives.

## Diabetes is different for children

Diabetes has a unique impact on children and their families. The daily life of children is disrupted by the need to monitor blood sugar levels, take medication, and balance the effects of activity and food. Diabetes can interfere with the normal developmental tasks of childhood and adolescence, including educational success and the transition to adulthood. In order to help the child and family cope, and to ensure the best possible physical and emotional health of the child, care should be delivered by a multidisciplinary team with good knowledge of paediatric issues. Support must also be given to caregivers and to school personnel. In this way, children with type 1 or type 2 diabetes can reach adulthood with as little adverse impact as possible.

Psychological and social difficulties can prevent children from receiving the best diabetes care available and achieving treatment goals. In addition to the demanding physical and emotional challenges of growing up, diabetes places considerable, at times overwhelming, demands on children and their families.

The disease is inescapable. It affects every aspect of a child's life and imposes a burden that has to be addressed by the child, the family, the school and local community. Managing diabetes brings psychological pressure on children with diabetes and their families, particularly when the management and treatment of diabetes is intensive

(i.e. maintaining blood sugar levels as close to normal as possible on a continuous basis).

Moving from childhood to adolescence is difficult for all of us. For children with diabetes it is a period that is often characterized by difficulties in achieving good diabetes control. Problems of low self-esteem, depression, and eating disorders may be more common in adolescents with diabetes.

Children with diabetes are at high risk of developing complications at a young age. Despite modern treatment, over 50% of children with diabetes develop complications 12 years after diagnosis. Intensive diabetes therapy can control diabetes and allow children to live full and healthy lives. However, it can also result in an increased incidence of low blood sugar levels, which when





frequent, may slow down brain development and function in young children. Therefore, it is important that systems of diabetes management aimed at improving blood sugar control be carefully defined, with age-specific targets.

## Not just for adults

Type 2 diabetes was originally considered a problem exclusive to adults, particularly those older than 40. However, as more and more children are becoming overweight and inactive, type 2 diabetes is increasingly being diagnosed in young adults and children.

The rapid rise of type 2 diabetes is believed to be partly a result of dietary changes. Across the

globe, more people are consuming high-fat foods that are heavily processed and low in fibre. Increasingly, families are eating food prepared outside the home.

The majority of children (some 85%) with type 2 diabetes are overweight or obese at the time of diagnosis. It is estimated that one in ten of the world's children are overweight. This includes 30 to 45 million children and adolescents who are obese and 22 million children under the age of five. All of these children are at increased risk of diabetes.

Other major risk factors for type 2 diabetes include:

- Family history of type 2 diabetes
- Ethnicity
- High blood pressure
- Lipid (fat) disorders
- Reduced physical activity
- High or low birth weight

Children with type 2 diabetes typically have a strong family history of diabetes. Ethnicity is also a strong risk factor. In the United States, as many as 80% of children with type 2 diabetes are of African, Hispanic, Asian, and Native American descent.

Evidence shows that children of women who developed gestational diabetes tend to have higher rates of type 2 diabetes. A study of Pima





Indians found that the strongest risk factor for developing type 2 diabetes in youth aged 5-19 years was exposure to diabetes in the womb. In order to decrease the risk of gestational diabetes, it is important for women to get to optimal weight and health prior to pregnancy and once pregnant, to adopt a healthy lifestyle and avoid excessive weight gain. If diabetes develops during pregnancy, rigid blood glucose control is imperative to reduce the risk of future diabetes in the child born to a diabetes pregnancy.

Type 2 diabetes usually develops slowly in children. It is frequently reported around puberty, when insulin sensitivity may be reduced by as much as 30% because of changes in the body. Symptoms for type 2 diabetes are frequently similar to those for type 1 but are often less apparent. Some children and adolescents with type 2 diabetes may show no symptoms at all. This can result in delayed diagnosis, which can have serious consequences for a child's health, as complications of diabetes may have already developed. At the time of diagnosis, it is not uncommon for young people to have developed multiple risk factors for early cardiovascular disease, including high blood pressure and abnormal blood fat.

## Management and treatment

Children and adolescents with diabetes face a lifetime of living with the condition. Compared to the management of diabetes in adults, diabetes in children and adolescents presents particular challenges. These include:

- Maintaining normal physical and psychological growth and development.
- Involving the whole family. This is particularly true when the child is too young to understand or manage the diabetes.
- Organizing care for the child with diabetes outside of the home environment (when the child is at school, for example).

The management of diabetes in children and adolescents poses different challenges at different ages.

*“Diabetes brings different challenges at different ages.”*

### **Challenges for infants and toddlers and their caregivers include:**

- Dependence on parents and care providers for managing diabetes
- Irregular eating and activity levels
- Difficulties for care givers to distinguish normal behaviour from diabetes-related mood swings
- Pain caused by injections and glucose monitoring
- Hypoglycaemia (low blood sugar) is more common

### **Challenges for school-age children include:**

- Adjusting to change from home to school environment
- Establishing relationships with other children
- Learning to self-manage their diabetes
- Adapting their diabetes to the school environment

### **Challenges for adolescents include:**

- Higher insulin insensitivity linked to puberty
- Rapid behavioural changes
- Increased risk of depression, anxiety, and low self-esteem
- Transition to adult services



© CE/M. Mercier

The goal for children with diabetes is to control and manage their condition as effectively as possible in order to reduce the risk of diabetes complications, while maintaining normal physical and psychological growth and development. This means that blood glucose levels should be kept within the recommended targets as much as possible so as to avoid hypoglycaemia (low blood sugar) and hyperglycaemia (high blood sugar).

All children with type 1 diabetes must take insulin. This may be injected three or more times a day or given by a pump that provides continuous subcutaneous (below the skin) infusion of insulin. Children with type 2 diabetes can take oral medications (e.g. metformin) or insulin; many take both (there is limited evidence as to the best treatment

strategies for type 2 diabetes, although many more children and adolescents with diabetes appear to require insulin therapy than adults). In addition, it is important that children with both types of diabetes eat a healthy diet, take exercise, and monitor their blood sugar levels regularly.

Exercise is important for children with both types of diabetes. It improves general fitness and strength, cardiovascular endurance, and lowers blood pressure and levels of blood fat. Exercise also improves insulin sensitivity and reduces glucose levels. Particularly for children with type 2 diabetes, physical activity helps to reduce body fat and increase muscle mass, contributing to improved insulin sensitivity.

There is no single plan to manage diabetes that fits all children. From one child to the next the following may vary: blood glucose targets; frequency of blood glucose testing; the type, dose and frequency of insulin; the use of diabetes medications, and diet.

Education is key to reducing complications and saving lives. Age-appropriate recommendations need to be made available so that children can control their blood sugar and so that families



*“All children with diabetes should have a right to the medication, support and education they need to manage their diabetes”*

and educators are properly informed. While it remains demanding, children can succeed in controlling their blood sugar and live full, healthy and happy lives. All children with diabetes have a right to the education and care that should enable them to take care of their diabetes. Ideally, the healthcare team should work in partnership with parents, teachers, day-care workers, extended family members and the child. Together, they play a major role in preparing children and youth for a future free of diabetes complications.

Diabetes education needs to be adaptable and tailored according to age, stage of diabetes, maturity and lifestyle. It should also be culturally sensitive and undertaken at a pace to suit individual needs.



Photo: Alec Ee

## Prevention

At present, type 1 diabetes cannot be prevented. The environmental triggers that are thought to generate the process that results in the destruction of the body's insulin-producing cells are still under investigation.

Type 2 diabetes can be prevented in many cases by maintaining a healthy weight and being physically active. Studies in China, Finland and the United States have shown that type 2 diabetes can be prevented through weight loss and exercise.

Many programmes have been implemented around the world by governments, schools, and communities to promote healthy lifestyles and living environments:

- Some schools are providing children with increased access to fruit and vegetables.
- Some schools are reducing the availability of sugary drinks and promoting physical activity.
- Some healthcare providers are monitoring body mass index (BMI) in children and discussing the results with families.
- Some local communities are offering lifestyle programmes for children and families.

Successful school-based preventive programmes for children have been implemented by a number of countries in various regions. In a study involving schools in California,



## Diabetes in the school

USA, a reduction in the use of television, and video games - from 12 to 8 hours per week - was associated with a reduced increase in BMI. In the UK, a school-based intervention that effectively reduced children's intake of sweetened drinks resulted in weight-loss in the most overweight students.

Governments need to recognize type 2 diabetes in children as a major public health issue and develop suitable primary care and prevention programmes. These include conducting population-based surveys to establish prevalence rates and tackling issues that impact on birth weight. There is also an urgent need for legislation that promotes health. Urban environments require urgent attention. Parks and recreation areas should be protected and/or expanded; urban planners must recognize the need to create pedestrian-friendly spaces.

In many countries, children spend an average of seven hours a day at school. It is essential to provide children with diabetes with an environment that enables them to appropriately address any diabetes-related challenges that can arise during the school day. Many circumstances that are a normal part of the school day will affect a student's blood glucose levels. These include physical activity and dietary changes. In order to maintain blood glucose levels within their target range during physical activity, students with diabetes should make adjustments to their insulin and food intake. Children with diabetes in the school should be able to freely access what they need to manage their diabetes - blood glucose testing equipment, insulin delivery systems, snacks and fast-acting carbohydrates.

*"Every schoolboy and girl with diabetes deserves a safe learning environment and equal access to educational opportunities"*





© CE

It is important for the child with diabetes that the family, and healthcare provider or diabetes care team work together to develop a diabetes management plan that is then communicated to school staff. The plan should include the following elements:

- The current insulin and monitoring routine of the child
- The child's ability to self-manage his/her diabetes
- The common signs, symptoms and treatment for high and low blood sugar
- Necessary equipment and supplies
- Meals and snacks
- Physical activity
- Emergency contact information for parents or guardians

Teachers and other members of staff should work with students and parents to support implementation of a child's diabetes management plan. By working together, staff, parents, and students can ensure a safe learning environment and equal access to educational opportunities for all children with diabetes at school.

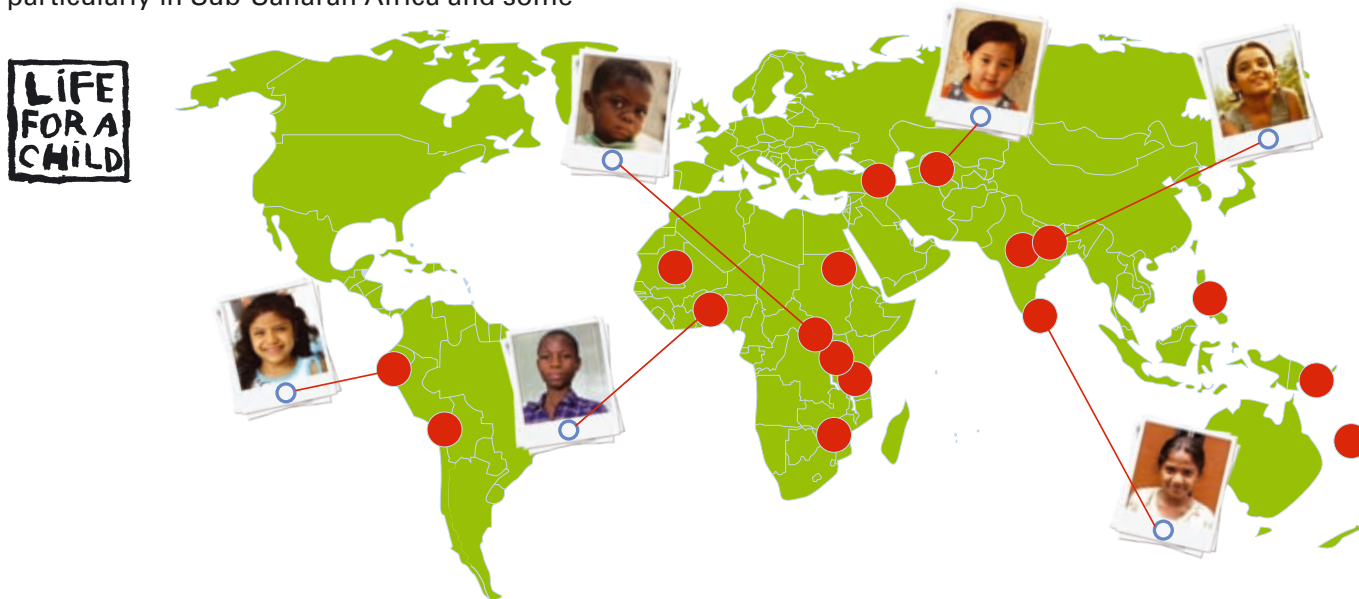
(Adapted from 'Overview of diabetes in children and adolescents.' Fact Sheet produced by the National Diabetes Education Program Available online at [www.ndep.nih.gov/diabetes/](http://www.ndep.nih.gov/diabetes/)).



## IDF Life for a Child Program

In developed countries, people with diabetes generally have ready access to all aspects of care, so they can lead healthy and productive lives. In contrast, in many developing countries, particularly in Sub-Saharan Africa and some

parts of Asia, insulin is often unavailable or unaffordable. Clinics and health centres may have no ability to measure blood glucose at all. Very few people with diabetes are able to conduct self-monitoring of blood glucose.



*“Many children with diabetes in developing countries die soon after diagnosis.”*

Today, the International Diabetes Federation Life for a Child Program supports nearly 1,000 children in 17 countries.

Some countries do not have any capacity to measure HbA1c (long-term blood glucose) levels. As a result of these and other factors, many children with diabetes in developing countries die soon after diagnosis, or have poor control and quality of life and develop early and devastating complications.

The International Diabetes Federation's Life for a Child Program supports the care of around 1000 children in the following countries: Azerbaijan, Bolivia, the Democratic Republic of Congo, Ecuador, Fiji, India, Nepal, Nigeria, Mali, Papua New Guinea, the Philippines, Rwanda, Sri Lanka, Sudan, the United Republic of Tanzania, Uzbekistan and Zimbabwe.

The Program works with diabetes centres in these countries to provide the clinical care and diabetes education that the children in their care need to stay alive. The centres provide comprehensive clinical and financial feedback.

The goals of the Program are to provide:

- Sufficient insulin and syringes
- Blood glucose monitoring facilities
- Appropriate clinical care
- HbA1c testing
- Diabetes education
- Technical support for health professionals (if requested)





The Program aims to raise awareness of the plight of children with diabetes in the countries in which it is present and encourages governments to establish appropriate care to safeguard the future of children with diabetes.

The Program is supported by donations from individuals, diabetes representative organizations, Rotary International and companies working in diabetes. Funds to support the Program are also generated by the International Diabetes Federation through the sale of World Diabetes Day merchandizing. Most individual donors contribute a dollar a day. Support is provided to recognized diabetes centers to purchase insulin and syringes, and provide monitoring and education. Financial trails and the health outcomes of the children are carefully monitored.

**[www.lifeforachild.org](http://www.lifeforachild.org)**



world diabetes day  
UNITE for diabetes



## Change the lives of children with diabetes

In many developing countries, children with diabetes suffer because insulin and other diabetes supplies are not affordable or sometimes not even available.

The International Diabetes Federation Life for a Child Program supports the care of nearly 1,000 children with diabetes in the following countries: Azerbaijan, Bolivia, the Democratic Republic of Congo, Ecuador, Fiji, India, Nepal, Nigeria, Mali, Papua New Guinea, the Philippines, Rwanda, Sri Lanka, Sudan, the United Republic of Tanzania, Uzbekistan and Zimbabwe

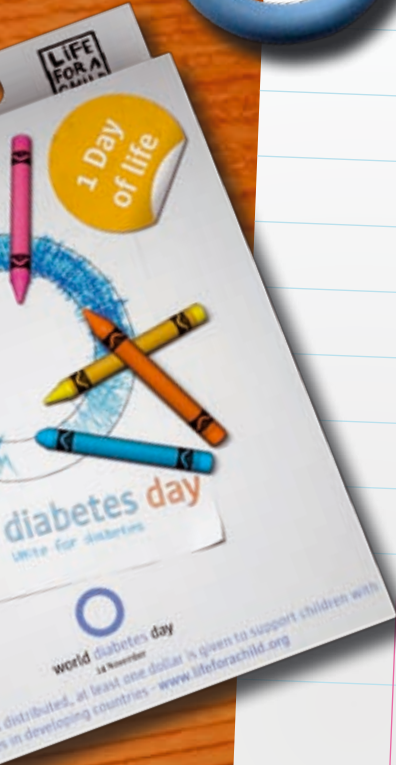
Many children with diabetes in developing countries die soon after diagnosis. Many others face the burden of complications while still young.

Life for a Child encourages governments to establish appropriate care to **safeguard the future of children with diabetes.**

Funds are donated by individuals, associations, Rotary International, and companies working in diabetes. Most individual donors contribute a dollar a day. Support is provided to recognized diabetes centres to purchase insulin and syringes, and provide monitoring and education. Financial trails and the health outcomes of the children are carefully monitored.

Help us save  
children with  
diabetes

*After doubling the number  
of children supported by the  
Program in 2007, the goal is to  
extend support to a further 500  
children by the end of 2008.*





## The International Diabetes Federation

Founded in 1950, The International Diabetes Federation (IDF) is a worldwide alliance that comprises over 200 diabetes representative organizations in more than 160 countries, representing millions of people with diabetes, their families, and their healthcare providers. IDF's mission is to promote diabetes care, prevention and a cure worldwide. It does this through education for people with diabetes and healthcare professionals, public awareness campaigns and the promotion of the free exchange of diabetes knowledge. IDF is associated with the Department of Public Information of the United Nations and is in official relations with the World Health Organization.

IDF is a truly global advocate for people with diabetes, committed to supporting activities that promote diabetes awareness at the national, regional and international level.

The main aims of IDF are to:

- Raise awareness of diabetes and its complications worldwide
- Promote diabetes education
- Influence and bring about change
- Act as global advocate for people with diabetes
- Promote and improve diabetes care
- Improve clinical care and access to medication



The content of this leaflet draws on the following sources:

- Swift P. ISPAD Clinical Practice Consensus Guidelines 2006-2007. *Pediatric diabetes* 2007; 8: 103-109
- 'Overview of diabetes in children and adolescents', fact sheet from the National Diabetes Education Program (NDEP); <http://ndep.nih.gov/diabetes/youth/youth.htm>
- The Global Burden of Youth Diabetes: Perspectives and Potential. IDF 2007.
- Singh R, Shaw J, Zimmet P; Epidemiology of childhood type 2 diabetes in the developing world; *Pediatric Diabetes* 2004;5:154-168
- Silink M; Childhood diabetes: a global perspective; *Hormone Res* 2002;57(suppl 1)
- Soltész G; Diabetes in children: changing trends in an emerging epidemic; *Diabetes Voice*, Special Issue May 2007
- Danne T, Kordonouri O; What is so different about diabetes in children; *Diabetes Voice*, Special Issue May 2007
- Dunger D, Hovorka R; No more nightmares: treatments to prevent nocturnal hypoglycaemia in children; *Diabetes Voice*, Special Issue May 2007
- Tfayli H, Arslanian S; The challenge of adolescence: hormonal changes and sensitivity to insulin; *Diabetes Voice*, Special Issue May 2007
- Kaufman F; Preventing type 2 diabetes in children - a role for the whole community; *Diabetes Voice*, Special Issue May 2007
- Vanelli M; Education and public information: preventing diabetic ketoacidosis in Italy; *Diabetes Voice*, Special Issue May 2007
- Warren-Boulton E; Helping children with diabetes at school; *Diabetes Voice*, Special Issue May 2007
- Diabetes Atlas Third Edition. International Diabetes Federation 2006.



More information about World Diabetes Day as well as materials for download can be found on the World Diabetes Day website: [www.worlddiabetesday.org](http://www.worlddiabetesday.org).

For further information about World Diabetes Day, please contact:

International Diabetes Federation  
Avenue Emile De Mot 19,  
B - 1000 Brussels  
Belgium  
Tel: +32 2 538 55 11  
Fax: +32 2 538 51 14  
[communications@idf.org](mailto:communications@idf.org)



International  
Diabetes  
Federation



World Health  
Organization



**ISPAD**

International Society for Pediatric  
and Adolescent Diabetes