

# What is DAWN?

The DAWN (Diabetes Attitudes, Wishes and Needs) programme is a global Novo Nordisk initiative in collaboration with the International Diabetes Federation (IDF) and the International Society for Pediatric and Adolescent Diabetes (ISPAD). The overall aim is to improve health and quality of life of all people with diabetes or at risk by addressing the psychosocial barriers to optimal diabetes management.

The programme started with the global DAWN Study in 2001, the largest of its kind, which is now widely published. The DAWN study offers a wealth of information about the wishes and needs of people with diabetes and their healthcare professionals. The results are used to identify critical gaps in the healthcare support for people with diabetes. The key finding was that increased focus must be placed on psychological issues to improve treatment outcomes in diabetes.

Today, the DAWN programme aims to translate the many findings from the DAWN study into concrete actions that can improve the lives of people with diabetes. It does so by facilitating concerted advocacy, sharing of better practices and concrete international initiatives to support people with diabetes better to self-manage and cope with their diabetes.

[www.dawnstudy.com](http://www.dawnstudy.com)

If you have ideas or stories that you would like to share with us please send your thoughts to [dawnyouth@novonordisk.com](mailto:dawnyouth@novonordisk.com)

Or visit our website at [www.dawnyouth.com](http://www.dawnyouth.com)

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International Diabetes Federation



**ISPAD**

International Society for Pediatric  
and Adolescent Diabetes



novonordisk®





# changing diabetes through DAWN Youth

Addressing the attitudes, wishes and needs of children and young people with diabetes world-wide

**DAWN**  
Diabetes Attitudes Wishes & Needs  
**YOUTH**

  
novo nordisk®

# It's a paradox

Never have we known so much about diabetes and how to control it, yet the number of cases is rising at an epidemic rate. Each year, 70,000 new cases are reported worldwide in children aged 14 years and younger.

That is why Novo Nordisk is collaborating with the International Diabetes Federation (IDF) and International Society for Pediatric and Adolescent Diabetes (ISPAD) to support the DAWN Youth Initiative to explore the attitudes, wishes and needs of young people with or at risk of developing diabetes. We need to understand not only the medical consequences of treatment, but also the psychosocial impact of living with diabetes.

The need for this initiative has never been more urgent. Unless action is taken to understand the unmet needs of young people, many of these young people could face a lifetime of potentially devastating complications that could otherwise be prevented.

This booklet introduces the DAWN Youth initiative—an international effort to share best practices, facilitate advocacy, research and action. Through it, we will communicate the voices of youth ambassadors and highlight various case studies as a means to share concrete ways in which action can be taken and already is being taken by the nine initiating countries. As you will discover, all of the DAWN Youth ambassadors are bright, engaging individuals that advocate for a greater awareness and understanding of diabetes and its impact—along with the advances being made to improve their lives.

We are well on our way to establishing a powerful knowledge base focusing on young people with diabetes. Our hope is that the findings of DAWN Youth will inspire new initiatives and awareness campaigns about the unmet needs of young people, their families and communities, and will ultimately make a difference to the quality of support given to individuals living with diabetes.



Thomas Danne  
Secretary-General ISPAD



Martin Silink  
President of IDF

# DAWN Youth background

## The DAWN programme

The Diabetes Attitudes, Wishes, and Needs (DAWN) programme began with the 2001 global DAWN study which confirmed vital deficits in diabetes care across 13 countries and identified new ways of overcoming psychosocial barriers to effective diabetes management. The DAWN Call to Action published worldwide by the IDF in 2004 calls for broad partnership efforts to improve diabetes care. Today, ongoing activities in more than 20 countries are bringing the vision into action.

## From DAWN to DAWN Youth

The International Diabetes Federation (IDF), the International Society for Pediatric and Adolescent Diabetes (ISPAD) and Novo Nordisk have joined forces to initiate a major project within the DAWN programme focusing on the unique needs of youth with or at risk of diabetes. DAWN Youth was established in response to the recognition that diabetes is different for young people and their families and in response to the IDF Youth Diabetes Charter 2007.

## Objectives of DAWN Youth

DAWN Youth aims to facilitate advocacy, research and action to improve the lives of young people with diabetes and their families with special focus on overcoming psychosocial barriers. Through coordinated research activities, national surveys, fact-finding exercises, and best practice sharing, it is hoped that DAWN Youth will generate new insights, dialogue, partnerships and actions to improve the lives of young people with or at risk of diabetes.

## DAWN Youth—first steps towards action

The first step is engaging key stakeholders to shape the required initiatives. Survey tools and action strategies are being developed to evaluate the needs of young people with diabetes, their families, and healthcare professionals and help clinics, regions, or countries find ways to improve psychosocial support. To kick-start the process, thought leaders and national associations have convened in Japan, Brazil, South Africa, United States, United Kingdom, Denmark, Italy, Netherlands and Germany to guide the DAWN Youth initiative and define national priority issues and action strategies.

In 2007, DAWN Youth WebTalk engaged with young people, parents, healthcare professionals and policy-makers from 8 countries to inspire and guide positive change. All young people with diabetes should have the right to receive the best possible care and the chance to lead full, healthy lives. DAWN Youth provides everyone with an opportunity to help make that happen.



# Why is it important?

Thomas Danne and Olga Kordonouri

## The urgent need to learn more about young people with diabetes

**The specific needs of children with diabetes are often overlooked. Type 1 diabetes is growing, and 70,000 new cases are reported each year in children worldwide.**

Many challenges remain in treating young people with diabetes. While their insulin and nutritional needs are the same as those of adults, there are major physiological, medical, psychosocial and emotional differences.

Like adults, young people with diabetes are at risk of developing life-threatening complications. Studies confirm higher mortality rates in children with diabetes, and 12 years after diagnosis, more than 50% of children with diabetes develop complications or co-morbidities.

### Changing needs of children

The needs of children with diabetes change as they grow and develop. Checking blood glucose levels, dealing with medication, balancing activity and food choices are all factors that impact the lives of young children. In addition to longer sleep patterns, unpredictable behaviour and eating habits, children also have a higher sensitivity to insulin, and frequent infectious diseases.

### Pre-school children

A child's diagnosis of diabetes also impacts the family. Small children cannot understand or manage their condition, and the burden of care must be shared among adults. Families need help to cope with the condition, while learning about diabetes and its management. Support must be ongoing, age-appropriate and evolve with the needs of the growing child.

### The impact of puberty

Puberty has a major impact on coping with diabetes. Some studies suggest that teens with diabetes are less satisfied with life and have more negative perceptions of their health than peers without the condition. However, a worldwide collaborative study showed that better treatment results were associated with fewer worries, better quality of life and a

decreased perception of the burden of diabetes on the family. This emphasizes the importance of optimal physical and psychological care for young people living with diabetes.

### More reference centres for paediatric diabetes

It is hoped that initiatives highlighting the special needs of children and young people with diabetes will lead to the establishment of more reference centres for paediatric diabetes where families have access to the medical, psychosocial, economic and emotional support they deserve.

Kari Rosenfeld

## Parent perspective

**There is nothing more precious than our children. We bring them into the world with a natural instinct to keep them safe from harm. When type 1 diabetes strikes, everything we know we must do as parents is challenged. Diabetes is different in children.**

Children must be allowed to grow and flourish, yet diabetes threatens their physical condition, emotional development and long-term development. Parents must help children battle serious long-term complications through careful, continuous monitoring and treatment of the disease and at the same time, encourage them to be children and live life to the fullest.

### A supportive society

Children with diabetes need a society that accepts them and supports a parent's instinct to keep them safe. This means working with parents to ensure children are safe when in school and out of their immediate care. It means making sure their physical needs are met, including access to medicines and diabetes education to manage their condition. It means providing emotional support when the burden of living with diabetes, coupled with other life stresses, becomes too difficult for a family to cope.

My job as a parent is to keep my daughter with type 1 diabetes safe so she can grow to become a productive citizen who can make positive contributions to society. I need a society that will work with me to make this happen. We owe this to our children.

Barbara Anderson

## Psychosocial aspects from the diabetes youth charter—the global burden of youth diabetes: perspectives and potentials

Psychosocial factors play a crucial role in youth diabetes management, and global awareness and support are essential to ensuring optimal care and improving quality of life for children and young people with diabetes. These are some of the key issues raised in the Diabetes Youth Charter.

Most paediatric diabetes management is patient/family-delivered care and poses significant demands on both children and their families. Psychosocial effects of diabetes stem from the fears and concerns that accompany the demands of managing a complex chronic disease in a developing child. Psychosocial factors impact adherence to treatment and glycaemic control, and are thus an intrinsic component of the management of children and youth with diabetes and the protection and preservation of their health and quality of life. For this reason, the chapter on Psychosocial Aspects is integral to the campaign for global awareness of the burden of youth diabetes.

### Key recommendations from the diabetes charter on psychosocial aspects

Ongoing evaluation of psychological and broader social issues facing the child and family needs to become part of routine diabetes care. Psychosocial support is associated with better control of diabetes, more adaptive coping skills and improved quality of life. This includes siblings, who also have psychosocial needs and concerns.

The healthcare team must also provide age-appropriate education and support for the child and parents at diagnosis and on an ongoing basis. Diagnosis presents a life crisis for the child and family members, and special care must be taken to assess the family's coping resources. Education will ensure the child and family can manage diabetes across the stages of the child's development and optimise tools for achieving healthy glucose control.

As the child enters school, the number of people involved in the management of his or her diabetes increases. It is essential that the school system and surrounding community be educated about diabetes—to break down the stigma and myths that can isolate the child/family living with diabetes. The school and community systems also require ongoing education about age-appropriate diabetes care and support as the child develops into adolescence and young adulthood.

Psychosocial support is associated with better control of diabetes, more adaptive coping skills, and improved quality of life.



Chas Skinner

# Psychosocial research

Revealed by the Hvidøre study group

The Hvidøre Study Group on Childhood Diabetes is an international assembly of paediatricians committed to performing high quality collaborative multi-centre research in children and adolescents, aimed at improving diabetes care for this population.

The research has shown that there are substantial differences between the paediatric diabetes centres on the outcomes of care that they provide. These differences could not be explained solely by medical and socio-demographic factors.

## Differences in the way care is provided

This led the study group to the hypothesis that differences in amount, type and the way in which care is provided by the diabetes team; cultural differences in the lifestyle of different countries; different approaches to self-management; and adjustment of insulin and psychological factors may at least partly account for these differences between centres.

The fourth study therefore attempted to answer this question by asking young people, parents and healthcare professionals in the different diabetes teams to complete a questionnaire about family relationships, food choices, leisure time activity, self-management behaviours and diabetes care services provided and received.

## Goal-setting as a centre difference

Analysis of the results, which is still underway, indicates that adolescent-parent disagreement about who is responsible for diabetes care is an important predictor of metabolic outcomes such as HbA1c and quality of life. Furthermore, adolescents who eat healthy diets and spend less time watching TV/playing on computers have better control of their diabetes. However, these factors seem to be related to outcomes in all diabetes centres, and do not explain differences between centres. Whereas other variables and the goals adolescents, parents and healthcare professionals aim for seem to vary between centres, and appear to relate to the differences between centres.

In close coordination with the DAWN Youth initiative the group intends to continue to pursue this research further, and is currently reviewing the establishment of studies to examine the care of younger children, as well as longitudinal studies to enable the tracking of changes across childhood and adolescence.

## Useful link

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



# Diabetes and school

Crystal Jackson and Larry C Deeb

Diabetes never takes a school holiday. Parents and healthcare professionals know that diabetes management is 24 hours a day, seven days a week, and the need to keep blood glucose levels in check does not stop when a child enters the classroom. Since a parent cannot always be there to help with diabetes management tasks, school personnel must be aware of the needs of students with diabetes and understand their roles in keeping children medically safe at school.



Children need special considerations to help them manage their condition, such as time and space to self-monitor their blood glucose. Diet and timing of meals and snacks need to be addressed with teachers and administrative personnel. If food is provided by the school rather than brought from home, the menu should offer choices that are appropriate for children with diabetes.

Proper diabetes management at school benefits everyone—staff spend less time treating hypoglycaemia or repeating instructions, children perform better academically and fully participate in school activities, and parents can rest

assured that their child is safe while at school.

## Safe at school

Students may be at risk of developing short- and long-term complications if school personnel are unfamiliar with diabetes and the need for diabetes management. Often students cannot maintain target blood glucose levels because there is no one willing to administer insulin or who can recognise the symptoms of hypoglycaemia. In the United States, the Safe at School campaign was launched by the American Diabetes Association to assist families in communicating the need for proper diabetes care at school and to

help parents use federal and state laws to advocate on behalf of their children.

Safe at School provides a model by which parents work with the health-care team to create a written care plan. Parents should meet with school personnel to discuss diabetes and explain how to meet the child's needs. Parents and healthcare professionals should also work with the school nurse to arrange personnel training. The American Diabetes Association has excellent training resources, and the National Diabetes Education Programme offers a complete school manual for parents and school use.

## There is a universal need for good diabetes care in schools

While most countries do not have laws regarding children with medical problems in the school setting, with proper preparation and education, the essentials needed to keep children with diabetes safe at school can be provided to most. A pro-active approach and regular communication throughout the school year will ensure that every child has the best chance of achieving academic success in a safe school environment.

## Useful links

ADA training resources:

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

US National Diabetes Education

Programme complete school manual:

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

# Family relations

Barbara J Anderson, Ph.D.

When a child is diagnosed with diabetes, the entire family is impacted. Recent advances in treatment technologies for managing type 1 diabetes have placed increasing demands on children and their families.

## Family stress and conflict

The good news is that intensive diabetes treatment is the best way of ensuring current and long-term health and quality of life for the child. However, there are two potential consequences for families—an increase in family stress and conflict, and the need for more sustained parental involvement and support in diabetes management. Research shows that higher levels of diabetes-related conflict in the family are associated both with lower levels of ad-

herence to the treatment regimen and with poorer glycaemic control. Research also shows that adolescents become more effective at managing their diabetes and optimising glycaemic control when backed by parental involvement and support.

## Provide parental support for diabetes management

In order to provide parental support for diabetes management, parents and young people should discuss in which

aspects of diabetes management the youth wants parental involvement (i.e. the youth is the captain of the family team). The parents must offer warmth, encouragement and positive reinforcement for the young people's efforts to carry out the complex daily tasks of diabetes management.

Families benefit from being part of a supportive community with other families of young people with diabetes, and this is especially true for single parents. It must be acknowledged that siblings of youth with diabetes have special needs and concerns, too.

## Prevent and reduce diabetes-related family conflict

Preventing and reducing family conflict related to diabetes depends on outlining clear behavioural goals for diabetes management with the healthcare team (i.e. when to check blood sugars, when and how to adjust insulin, how to treat low blood sugars, etc). Family members should avoid talking about "good" and "bad" blood sugar numbers; rather numbers are "high, low, or in the target range". There should be parental focus on reinforcing the young people's diabetes management behaviours and avoiding judgmental comments about blood sugar numbers.

Finally, it is important to acknowledge that the current tools for managing diabetes are not perfect. Avoid perfectionism when discussing diabetes, and set realistic goals for behaviour.



# Psychosocial support in the healthcare team

Stephen Greene

While type 1 diabetes requires self-management with family backing, professional support is generally delivered by a healthcare team. Members have specific expertise and roles for various aspects of diabetes management: the diabetologist (paediatrician and/or physician) is usually the team director and is responsible for overall delivery of care and specific health concerns; a specialist nurse often supplies day-to-day diabetes care advice and the delivery of the post-diagnosis education programme; a dietician is usually available to supply information about diet and diabetes.



## Working together to provide support

The healthcare team works together to inform, advise and support the patient and their family, not only in times of acute emergency (eg 'hypos' or periods of illness) but also at times of difficulty when coping with the everyday practical aspects of diabetes management. Many healthcare teams provide 'after hours' advice, and some countries have even incorporated this service into their national diabetes programmes. Most teams work with systems of good practice (such as the ISPAD Guidelines) or their own national clinical guidelines developed with patient and family involvement.

## Invaluable standards of care

Many countries cannot supply the diverse number of professionals needed to support a team approach to care,

and for many young people with diabetes, all advice comes through a single physician. Standards of care, such as the ISPAD Guidelines, are invaluable to the 'single-handed' team and new websites provide up-to-date information for patients that can be used to work with their physician. Many teams recognise difficulties in diabetes self-management and the resulting psychological issues: stress, anxiety, and depression. For most, these are reactive difficulties requiring simple professional support and advice.

## Psychological issues

It is well documented that psychological difficulties that develop in type 1 diabetes can be considerable and may require special help from professionals such as a clinical psychologist, who is often an 'extra' member of the healthcare team. Their health psychology expertise and a working understanding

of clinical diabetes make them ideally suited to help the relatively small number of families that experience severe problems in coping with type 1 diabetes.

## Delivering support through modern technology

In future, daily support may be delivered in more novel technical ways using modern communication technology. The ubiquitous use of mobile phones (even in developing countries) and digital communication technology make "social support networks" for diabetes based around SMS and MMS systems very attractive. This development is set to expand in the next decade and will likely become a major part of healthcare team practice.

## Useful link

[www.ispad.org](http://www.ispad.org) — resources

# Connecting, networks and friends

AYUDA Inc.

The challenges of young people can make diabetes management and social interaction difficult. However, a youth diabetes community can help encourage better management of the condition, increase self-esteem and help children live happier and healthier lives. Campo Amigo Ecuador (CAE) employs an empowerment method that allows young people with diabetes to educate other young people with diabetes. This peer-to-peer model works effectively to motivate young people to better manage their diabetes.

CAE was established by AYUDA (American Youth Understanding Diabetes Abroad), an organisation that recruits volunteers from around the world to serve as camp staff and work with teenagers and young adults to deliver essential diabetes education and management skills. CAE is an intense overnight camping experience that brings children together from distant provinces and allows them to establish lasting friendships and gain valuable mentors, so

they can better deal with the psychosocial consequences of their condition. The programme encourages better diabetes self-management and provides a valued support network throughout the year.

## Connecting youth: changing attitudes

Sofía Alarcón grew up in Quito, Ecuador, and was diagnosed with type 1 diabetes at age 8. She first attended CAE

as a camper at age 15. Before arriving at camp, she did not know any other young people with diabetes. "I felt lonely," she said, "but Campo Amigo changed my life." Sofía later returned to the camp as a counsellor, and is now the camp director. She helps with recruitment, mentoring children and directing camp activities. "Since many counsellors at camp have diabetes as I do, campers see us as good examples and want to be like us when they grow up: controlling their diabetes, helping others and living healthier and happier lives with their diabetes," explained Sofía. "This works because it motivates campers to be in good control of their own diabetes throughout the year."

### About AYUDA Inc.

Established in 1996, AYUDA empowers young people to serve as agents of change in diabetes communities around the world. AYUDA's programmes incorporate an innovative peer-to-peer education delivery model to enable young people to take an active role in managing their condition. In 1999, AYUDA established a national annual diabetes camping programme in Ecuador, Campo Amigo Ecuador. Today, AYUDA has organised diabetes camps in eight countries and has youth leaders in over 20 countries. Sofía is one of such leaders.

### Useful link

[www.ayudainc.net](http://www.ayudainc.net)



# Coping and psychosocial barriers to self-management

Frank J Snoek

Diabetes makes you different, and children do not want to be different. One of the major challenges children with diabetes face in their everyday lives is maintaining blood glucose control while playing, learning, and going out. Yet children generally do very well in coping with the daily demands of diabetes and being (a little) different.



## For children, the present is what counts

For this reason it is not difficult to understand that children and adolescents with diabetes worry more about 'going low' than running high blood sugars. Establishing balance between high and low can be difficult; a child's behaviour is often erratic and he/she is less adept at picking up on early signs of hyper- and hypoglycaemia. Parents, teachers and friends play an important role in helping the child feel safe and keeping the condition under control.

The onset of puberty in many, if not most, adolescents is marked by feelings of ambivalence, impulsiveness

and mood swings. This of course has a major impact on coping with diabetes. Some studies have suggested that teenagers with diabetes are less satisfied with life and have more negative perceptions of their health than peers without the condition.

## Psychosocial barriers

During puberty, hormonal changes can make diabetes harder to manage. At the same time, adolescence is often a turbulent period that can lead to mismanagement of the condition. Combining the urge for autonomy and the need to share responsibility for the condition can be difficult. Glycaemic control often deteriorates, at least partly, due to poor

adherence. Often young patients 'forget' to inject their insulin, and girls can be tempted to skip insulin injections to lose weight, leading to dangerously elevated blood glucose levels (read about this in the case from Denmark, on page 18). Eating disorders are a major psychological barrier to self-management in girls with diabetes.

Growing up with diabetes presents unique challenges, and much depends on the support the child receives from parents and caregivers. Interventions to improve communication are important to help families negotiate such difficulties. Interventions to improve communication can help families to cope with diabetes.

# Preventing obesity

Francine R Kaufman, M.D.

Today, we live in an obesogenic environment: fast food, junk food, processed food and sweetened beverages, computers, television, instant messaging, and the supremacy of the car have made it easy to become overweight and obese. Over the last few decades, we have watched children and teens around the world get out of energy balance and have an excess intake of calories compared to calories burned in activities and daily living. And children with diabetes are at risk as much—or even more.

There have been countless reports of weight gain associated with intensive diabetes management in adults and children with type 1 diabetes, and at least 90% of adults and youth with type 2 diabetes are overweight or obese. Ex-

cess weight is associated with insulin resistance, poorer diabetes control and perhaps a higher diabetes complication rate. So it is crucial that young people with diabetes adopt healthy lifestyle habits.

How does a child with diabetes establish a healthy weight? The answer is obvious—by eating nutrient-dense foods in appropriate quantities and by being physically active.

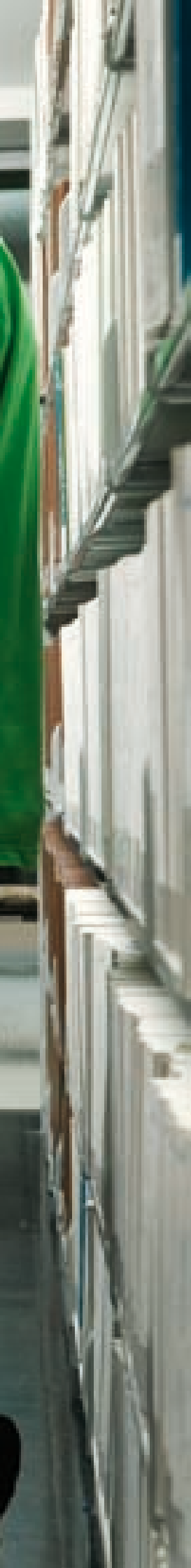
## Ten simple steps to optimal health

1. Avoid sugar-sweetened beverages (except to recover from hypoglycaemia) when you can drink water.
2. Eat a variety of fruits and vegetables every day—at least 5 or more.
3. Control portion size.
4. Consume adequate fibre.
5. After age 2, consume dairy products that are low or non-fat.
6. Reduce saturated fat and eliminate trans fats.
7. Be physically active for at least 60 minutes every day.
8. Reduce TV, computer, phone, electronic games to less than 2 hours every day.
9. Do not use food or playtime as a reward or punishment.
10. Do all these things as a family, a community, and as a society.

These ten simple steps are a good place to start, however much more can be done. Involve the healthcare team in achieving healthy weight, which might at times involve an alteration of the diabetes regimen. If we all do our part—in our homes, in our villages, in our workplaces, in our countries—we have the chance to reverse the worldwide obesity epidemic and improve the health of all of us.







# **DAWN Youth around the world**

# Brazil



## School challenge: health circuit

In a joint initiative with two Brazilian diabetes associations, Novo Nordisk developed a School Challenge Health Circuit based on four educational activities designed to teach children about diabetes.

### Deeper understanding of diabetes

The School Challenge Health Circuit teaches Brazilian children that diabetes can result from poor lifestyle choices. Through teamwork and games, the circuit kicks off with a School Challenge presentation on diabetes and the importance of developing good food and exercise habits. The children then enter the Health Circuit where they participate in four activities: the health castle, an interactive quiz, a 'mouth station' and a food pyramid.

### The health circuit

Children begin with an exciting and competitive bridge-building game to access the Health Castle. It is exciting and competitive, and it gets the children thinking about diabetes on their own terms. This is followed by an interactive quiz with questions about diabetes, health, food and exercise.

The third activity is staffed by a professional who shares the importance of oral care using a 'giant mouth' model. Children

are then asked related questions and those who respond correctly receive a prize.

**The school challenge health circuit gets children thinking about diabetes on their own terms.**

The last activity is an interactive food pyramid, where children assemble pieces together according to their own ideas. They can also see and touch real vegetables and fruits and then identify their food categories.

The Health Circuit promoted on two simple but powerful messages—eating healthy and staying active. Communicated in a fun way, children were empowered to deal with diabetes in their own lives and in those around them.

## Vanessa Pirolo

For Vanessa, being diagnosed with diabetes has been a life-transforming journey of self-discovery. She found the inner strength to overcome the challenges of coping and living successfully, completing her education as a journalist, staying fit and becoming actively involved in the Association of Juvenile Diabetes in Brazil.

“I was diagnosed with diabetes when I was eighteen.” It was a difficult period in her life. She had problems controlling her glucose levels, even though she complied with her insulin regimen and maintained a healthy diet.

“So I started working out,” she says. “I went to the gym, started jogging and began seeing a therapist to understand myself better.” Vanessa reflects on the positive ways being diagnosed with diabetes has transformed her life. “Before being diagnosed I lacked self-confidence and wasn’t very independent. Suddenly, I had to be an adult.”

Vanessa is a fighter. “By enduring the suffering to live another day with my family, I learned that I should never give up, that I could overcome any obstacle and I could make my dreams come true and also help others overcome this disease.”

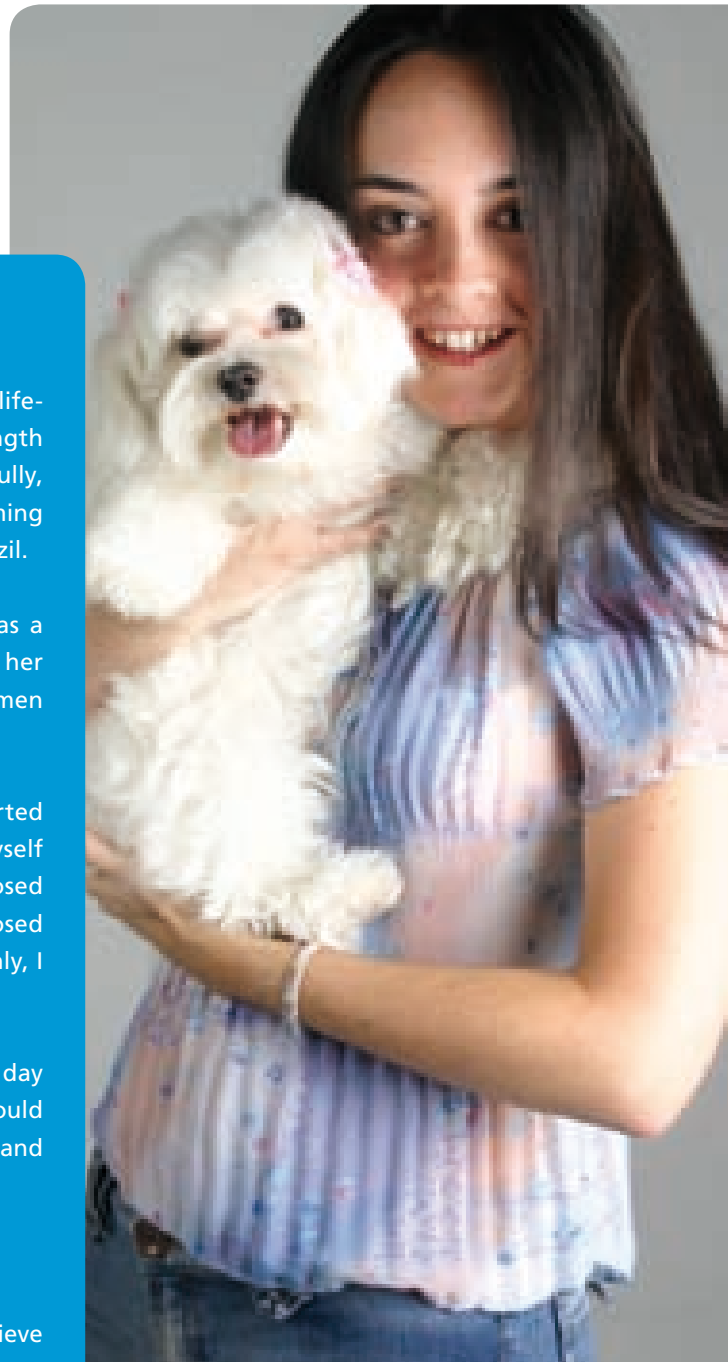
### Why she’s involved in DAWN Youth

“The reason why I am involved in DAWN Youth is because I believe in its mission. I respect the seriousness of the Youth Panel and the mission of Novo Nordisk. I love participating in a programme that improves the health and quality of life of people with diabetes. In short, I want to work on raising awareness to diabetes in my city and country.”

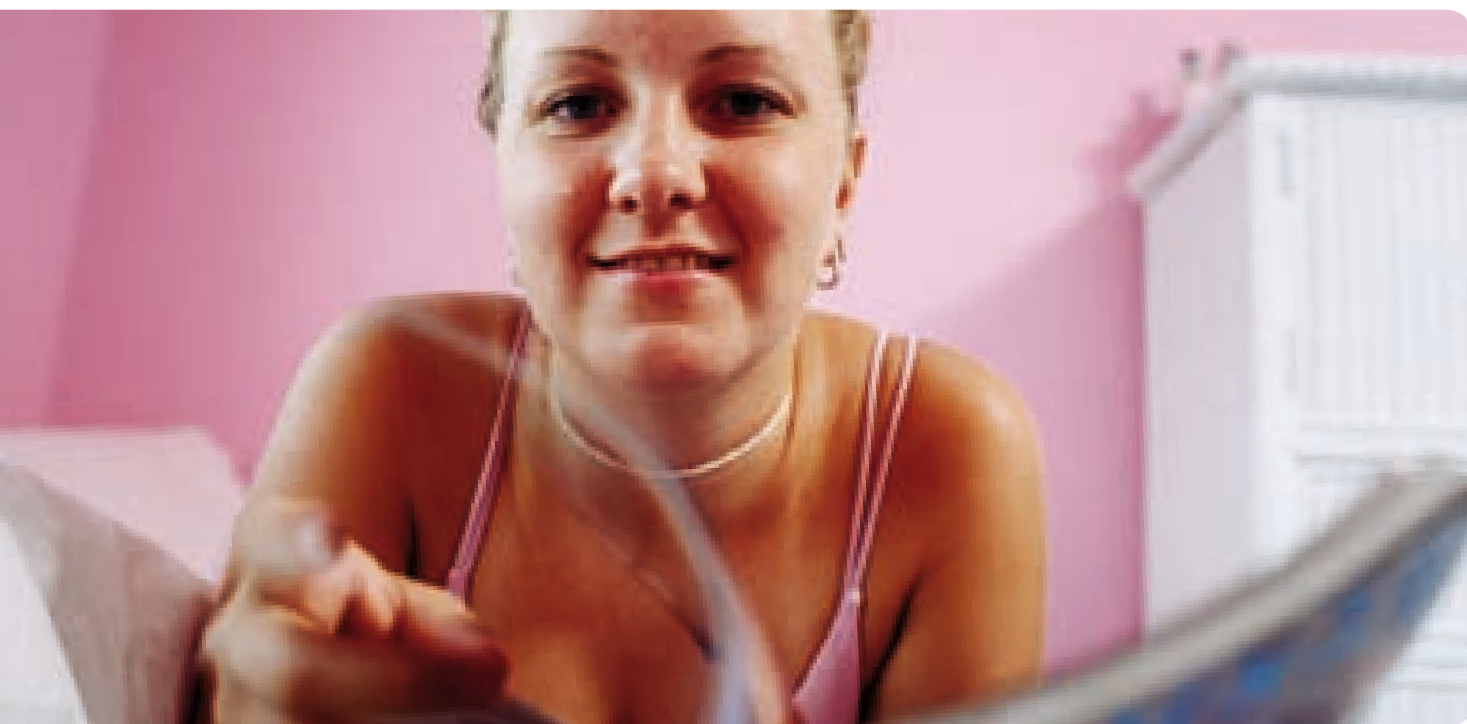
### Vanessa’s advice to others

“My best advice”, Vanessa says, “is to understand the way people with diabetes face the disease. In my opinion, I think you should not see diabetes as a problem. It is an opportunity for individuals to learn to know themselves better—and see diabetes as a challenge to be conquered. It can improve your quality of life.”

**“Everyone faces difficulties throughout life. Diabetes is one of them. It changed mine because I have fought hard”**



# Denmark



## Getting adolescent girls on track with self-management

Adolescent girls with type 1 diabetes have discovered they can lose weight by skipping insulin doses. Known as 'diabulimia', the phenomenon is spreading and many adolescent girls are endangering themselves to lose weight, warns Dr. Birthe S Olsen, DAWN Youth National Adviser for Denmark.

### 'Diabulimia' on the rise

The Diabetes UK organisation estimates that up to every third female diabetic occasionally skips insulin in order to lose weight, which can be disastrous to their future health. Dr. Olsen says that the phenomenon is also familiar at the Diabetes Clinic at Glostrup Hospital, Denmark's largest treatment centre for children and young people with diabetes.

**Girls who skip insulin to lose weight may suffer serious health consequences.**

Dr. Olsen regularly encounters girls who skip insulin to lose weight: "It may be due to the increased focus on food and weight, and there is a higher rate of eating disorders among patients with diabetes." She adds that the girls often have

psychological issues and lack parental support. Another factor is peer pressure to look good and stay thin, which reinforces the psychosocial barriers that young women struggle with and prevents them from achieving good self-management.

"They spend a lot of energy calculating exactly the amount of insulin they need to stay alive. But they are walking the razor's edge. They also risk serious complications as early as their twenties," she says.

### Support is crucial

Action is being taken, and at Glostrup Hospital girls receive psychological help as soon as the issue is discovered. This support is crucial to helping them deal with their issues and establish control over their lives. Dr. Olsen also ensures girls are brought back on track in terms of taking their insulin properly.

## Anja Østergren Nielsen

Anja Nielsen is a 22-year-old working at the Copenhagen University Hospital, Rigshospitalet, while actively being involved as an advocate for the diabetes cause.

Anja lives a stressed life of high-powered studying and work while volunteering as an advocate for diabetes, answering emails and calls and offering advice.

So she understands the challenges faced by many young people with diabetes. "From my own experience, I know how much my blood sugar control depends on how I feel in general."

Stress, a normal part of her life, makes her blood sugar levels unpredictable. "My first doctor was not good at seeing me as a person who happened to have diabetes; he only saw the 'diabetic' and did not really understand why I didn't always follow his advice."

There is more to effectively managing diabetes than taking your insulin on time. It takes an emotional toll, and a deeper understanding of the attitudes, wishes and needs of young people with diabetes is desperately needed to improve the professional quality of care provided.

### Why she's involved in DAWN Youth

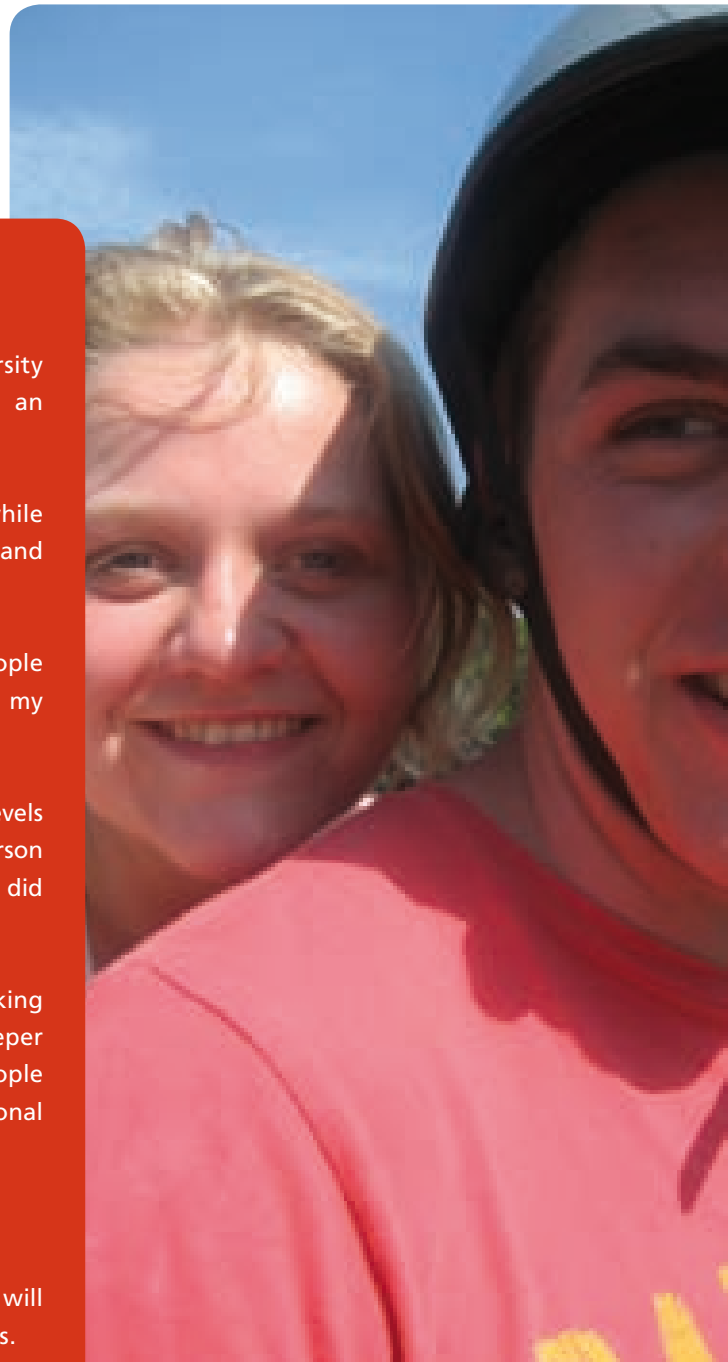
"My hope is that DAWN Youth together with other initiatives will help support other people with diabetes like myself," Anja says.

### Anja's advice to others

"My best advice to anyone living with diabetes is to find people your own age to talk to. When I am really frustrated by my diabetes acting weird, for instance when my blood sugar is low for the 5th time that day, there is nothing better than to complain to someone who truly understands what I'm talking about!"

She is good at following her own advice. "Some of my friends have gotten text messages at bedtime, written while I'm drinking my juice to fix my blood sugar before sleeping. I'm sure they don't mind," she laughs.

**"My doctor was not good at seeing me as a person who happened to have diabetes..."**



# Germany



## DAWN Youth Camp D

DAWN Youth Camp D has a simple but powerful message: **Live your life!** The event held in Germany brought together more than 650 young people with diabetes between the ages of 16 and 25. They came to meet, exchange knowledge and raise awareness of the life challenges faced by young people with diabetes in a casual outdoor setting.

### Real-life adventure camp

It started with a vision that became an idea. Finally, after more than two years of planning, the idea became a real-life adventure camp for young people with diabetes. At the DAWN Youth Camp D, prominent diabetes experts spoke on issues relevant to the young audience. With great commitment and enthusiasm they listened to the talks such as “Burn fat instead of burn out”, “As far as your feet carry you” and “The future belongs to me”. In addition, well-known sports celebrities with diabetes were on hand to discuss their experience dealing with diabetes in everyday life.

**At the DAWN Youth Camp D, young people came together to exchange knowledge and raise awareness of their life challenges.**

### Focusing on issues, raising awareness

But the DAWN Youth Camp D had practical objectives, too. During the event, more than 400 questionnaires concerning the problems, wishes and needs of young people with diabetes were filled out by participants. The camp also aimed to shed light on issues such as improving care outside of families, strengthening cooperation between educators and parents, advocating nurses for children with chronic diseases at full-time schools, and providing contacts for parents at pre-schools and grade schools.

The success of the DAWN Youth Camp D helped to create a positive image for children with diabetes and raise much-needed public awareness of diabetic issues.

### Useful links

For further information, please visit:

[www.campd.de](http://www.campd.de)

Website for young people with diabetes:

[www.diabetes-teens.net](http://www.diabetes-teens.net)

## Richard Schlomann

Richard is 19 and was diagnosed with type 1 diabetes in July 2000. He has been a real innovator in using the web to open communications between young people with diabetes, having launched his own site ([www.diabetes-teens.net](http://www.diabetes-teens.net)) as a forum for chatting and sharing knowledge.

Richard is pursuing his dream of being an Internet innovator. A student now, following graduation Richard will have the official title of Medical Records Administrator/Documentalist.

Richard is also pursuing a personal dream. He set up a web forum along with other young people he met at DAWN Youth Camp D in 2006. "We wanted to build an open forum where teens could communicate with teens. It's a place where everyone can openly speak about issues and see that they are not alone," explains Richard. And it works. The website reveals Richard's passion for helping others with diabetes and creating a medium to share experiences and knowledge with others.

### Why he's involved in DAWN Youth

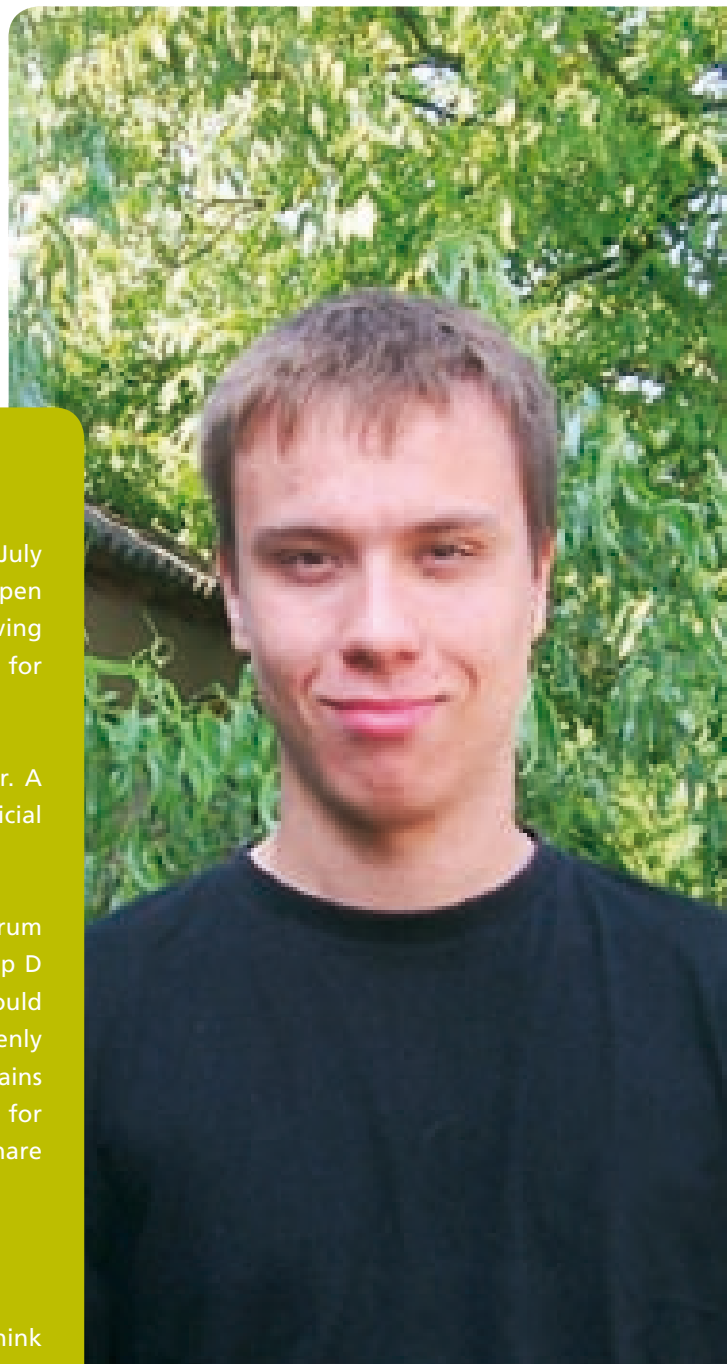
"I have chosen to get involved in DAWN Youth because I think that I am able to achieve something for diabetes. In my life with diabetes, I have had many experiences."

Richard says that early on it was difficult to understand the impact diabetes would have on his life. But he soon "learned to live with diabetes and can do all the things he wants to do."

### Richard's advice to others

Richard's motto is, "Diabetes is more than an illness—it's a way of life." His wish is that people would understand that diabetes is a life task, one that brings challenges but can definitely be managed. Luckily he has the skills and attitude to communicate this to the world through his forum, and as an ambassador for DAWN Youth.

**"Diabetes is more than an illness  
—it's a way of life."**



# Italy



## Road bike tour raises public awareness of diabetes

Young people with diabetes are just as capable of competing in sports as anyone else in their age group. That's the idea behind the Road Bike Tour, a marathon promoted jointly by Diabete Italia and Novo Nordisk.

The Road Bike Tour began in Perugia, Italy, where the seven participants, all young cyclists with diabetes, cycled 1165 km from Perugia, via Strasbourg, the seat of the European Parliament, to Papendal, The Netherlands, where the Diabetes, Exercise and Sports Association (DESA) held its World Congress. Once there, the cyclists announced to the DESA delegates that Diabete Italia had endorsed the principles of the written Declaration of the European Parliament on Diabetes. "Right from the start we felt like a team and as the days passed, the feeling increased. We helped, consoled and tested each other. It was a really incredible human experience," emphasises Simone.

### Changing perceptions

The cyclists' jerseys featured the slogan "Changing Diabetes" to bring attention to the Novo Nordisk campaign to raise public awareness of the need to change the perception of diabetes.

Simone Donadello, a key participant in the Road Bike Tour, was enthusiastic about the results of the marathon: "This was a big success for us but also for the fight against diabetes as our efforts caught the attention of EU institutions to the growing social problem of our disease." Two months after the tour Simone was invited to meet with Vice President and Commissioner for Justice, Freedom and Security Franco Frattini. Mr. Frattini showed a close interest in the matter and offered his support: "It will be my task to tell my colleague, Mr Kyprianou, about this as soon as possible so that the European Commission too, and the Parliament, can be on the front line in this important challenge."

**"This was a big success for us but also for the fight against diabetes."**

## Simone Donadello

Simone is an energetic 19-year-old who has found the ultimate adventure through cycling. His cycling conquests are impressive, but so is his struggle with diabetes.

Diagnosed in 2004, Simone feared that he would no longer be able to pursue competitive level sports. But he says, "I soon found my rhythm again." And as he discovered, he can optimise glucose control for peak performance.

Simone met fellow athletes with diabetes last summer and this initial meeting led to the start of the first diabetic cycling team, C&D 'Cycling and Diabetes.' "Apart from our passion for pedalling," he says, "there is a strong desire to share our experiences to help other people with diabetes, and to have the courage to overcome our limits."

Simone is now studying physics at university, but is still involved at diabetes-related events and planning sessions. Most recently, he attended a meeting to plan an event to be held on World Diabetes Day at the National Museum of Science in Milan to include labs and discussions about young people with diabetes.

### Why he's involved in DAWN Youth

Simone is committed to educating the public about diabetes and sharing his own experiences, and that's why he is so enthusiastic about DAWN. He feels it is important to get the message out that diabetes is not just a clinical issue and cannot be solved solely through medicine. A variety of views is crucial, which is why DAWN Youth provides an excellent opportunity for dialogue and understanding.

### Simone's advice to others

"I have always tried to do my best to overcome challenges in life. I am totally committed to achieving my dreams and sport has helped me a lot. My message is that physical activity and an active style of living are the best prevention for illness."

**"Diabetes does not represent a barrier between me and my objectives, even if my road is now uphill."**



# Japan

## A partnership for the benefit of children and young people

In Japan, the number of children and young people with type 1 and 2 diabetes are increasing with the ratio 1:1 along with the increase in the number of obese children and teenagers.

In response, a range of activities have been developed to bring focus to the issue and promote healthy living to young people with diabetes. Many of these activities are supported and organised by the Japan Association for Diabetes Education and Care (JADEC), a nationwide organisation of people with diabetes and healthcare professionals engaged in the dissemination of diabetes-related knowledge and the promotion activities to increase diabetes awareness. Since the 1960s, young people with diabetes and their families have had the opportunity to attend JADEC seminars, friendship meetings, and summer camps for children where they learn to cope with their condition in the context of a relaxed and fun environment.

### Still many challenges in living with diabetes

Improvements have been made in Japan in terms of financial support and school programmes for young people with diabetes, but there is a long way to go. Results of a JADEC-subsidised survey in 1993 showed that young people still experience many challenges living with diabetes. The DAWN Youth study is expected to identify the psychosocial effects of diabetes on young people, their families and those who provide them with support, and suggest improvements.

JADEC has recently increased its efforts to develop countermeasures against paediatric diabetes, especially in regard to the paediatric diabetes task force. By placing the National DAWN Youth Advisory Board under the paediatric diabetes task force, and making this project a joint venture

between JADEC and Novo Nordisk, it will be possible to expand the scope of JADEC's activities.

**In Japan, the number of children and young people with type 1 and 2 diabetes are increasing with the ratio 1:1 along with the increase in the number of obese children and teenagers**

### DAWN Youth study in Japan

In Japan, the DAWN Youth study is to be performed by JADEC under the sponsorship of the Japan Diabetes Society. A written questionnaire will be distributed to 200 young people with diabetes and their families. Comparing the results of the DAWN Youth study with the results from the 1993 survey, JADEC aims to identify the challenges young people with diabetes encounter in their daily lives. The data will be examined in light of the advancement and residual problems in the care for diabetes in Japan as well as the long-term effects of the JADEC summer camp.

The results will shape the direction of youth-specific activities with the aim of reducing the burden on young people with diabetes. The study results will be used when JADEC lobbies the Japanese Ministry of Health, Labour and Welfare on diabetes care and issues messages about diabetes care to related overseas organisations.



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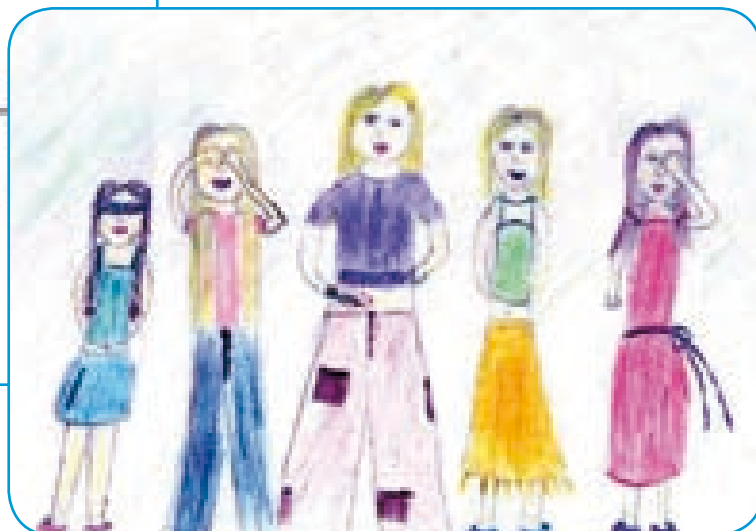
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# The Netherlands



Rachel, 10 years old



Sigrid, 10 years old

## Children express feelings in drawing competition

The first insulin was given to a child with diabetes 85 years ago this year. Today, diabetes can be treated, but still cannot be cured. The International Diabetes Federation (IDF) has declared 2007 as 'The Year of the Child with Diabetes' and to mark the occasion Novo Nordisk held the Changing Diabetes drawing competition for children in the Netherlands.

The drawing competition encouraged children to express their feelings about life with diabetes and offered others a chance to see through the eyes of children with the disease. Drawing provides children with an effective communication tool, enabling them to reveal their attitudes, wishes and needs living life with diabetes. These insights, through links to the DAWN Youth 'initiative' help to spark programmes with the aim of improving treatment and support for youth with diabetes and those who care for them.

**Drawing provides Dutch children with an effective communication tool**

### Diabetes experts to select the winning drawings

Novo Nordisk invited all children with diabetes between 4 and 12 years old to participate in the drawing competition. An expert jury consisting of Jochem van Gelder (a Dutch host of children's TV programmes), Dr. Henk-Jan Aanstoot (a diabetic paediatrician) and Bas van de Goor (a former professional volleyball player with diabetes) selected the winning drawings. The winners were announced on September 19 2007 during the Changing Diabetes World Tour and European Association for the Study of Diabetes (EASD) in Amsterdam.

### Useful links

All entered drawings are on display in the digital gallery:  
[www.changingdiabetes.nl/tekenwedstrijd](http://www.changingdiabetes.nl/tekenwedstrijd)  
[www.easd.org](http://www.easd.org)

## Roy Derks

Roy Derks is a sports fanatic passionate about volleyball and mountain biking. After graduating with a degree in mechanical engineering at the University of Technology Eindhoven, he pursued his PhD in the field of biosensors. He's also into cars in a big way.

Roy knew something was wrong. He was increasingly tired, weak and thirsty, troubling signs for a natural born athlete. When he was finally diagnosed with diabetes type 1 in 2002 at the age of 21, it sent his life into a tailspin.

"It felt like I was suddenly cast into a leading role for a movie. But I wasn't sure if the film was a tragedy, comedy or thriller. But after I had my first injection, I discovered there was no fiction involved at all. This was serious business," he says.

The condition changed the way he dealt with his entire life. He took up the challenge by learning all he could about diabetes and how he could lead a healthy life with the condition.

### Why he's involved in DAWN Youth

Roy says that his "philosophy is that no matter how much medical help you have available, ultimately it is you who have to control your diabetes yourself."

His experience has taught him that his diabetes influences every aspect in his life—and that everything in life affects his diabetes. It's always a matter of making choices", he says.

"I am involved in DAWN Youth because young people are the future of the world and I feel I need to help other people to overcome this struggle."

### Roy's advice to others

"Even though diabetes is one of the most difficult diseases to control, I try to keep my daily life as true to how I want it to be. My best advice to others is to adapt your diabetes to your own life, and not the other way around. Try new things and learn by experience. It will improve your life living with diabetes!"

**"It felt like I was suddenly cast into a leading role for a movie. But I wasn't sure if the film was a tragedy, comedy or thriller."**



# South Africa



## DAWN Youth interview study

Recently, a DAWN Youth study was undertaken in South Africa to evaluate the issues and concerns of young people with diabetes. A total of 54 interviews were conducted by a diabetes nurse with 27 children between 12 and 18 years of age and their parents. The interviews, which were conducted in Afrikaans, Zulu, Sotho, Xhosa and Tswana, covered topics of lifestyle, health, community, and psychosocial issues.

### Good days and bad days

The study highlighted the psychosocial issues that affect children with diabetes and asked participants about what made 'good days' and 'bad days'. On good days, children report feelings of relaxation and well-being, and this often links to maintaining normal-range blood sugar levels. Children also felt that being able to participate in sports and spend time with friends added up to a 'good day'. Bad days are characterised by arguments among family members and experiencing the effects of high or low blood sugar. Children voiced their feelings in emotional terms, "It affects you and you feel your blood sugar going up. There are times when I wish that I did not hear these things. I try to forget about it."

### Improving support is critical

Children also reported issues related to food and the testing and administration of insulin. In the words of one child: "Sometimes it becomes so difficult and it is like work; do it

every day, inject 3 times a day and have to write it down. There must be someone to remind you because sometimes you forget." The interviews also revealed worries about the symptoms and/or side-effects of diabetes. And both parents and children stressed the importance of improving teacher education and additional nursing staff in schools to provide even better support.

Most of the children are living their lives and refuse to let their diabetes get in the way. One child expressed the feelings of many with the words, "I just want to be the best person I can be."

**The DAWN Youth Study highlighted the issues and concerns of adolescents and children with diabetes in South Africa.**

## Martin Salkow

Martin is a 22 year old that doesn't let anything in life slow him down. He's into mountain climbing precisely because he wants to dispel the notion of young people with diabetes being limited in their pursuits and enjoyment of life.

Martin is totally jazzed about being involved in the DAWN Youth initiative because "I could fully identify with children who have the same condition." As a child, he said, "I felt angry, frustrated and behaved like a monster!"

Studies show this is not unusual for young people with diabetes. Impulsiveness and mood swings can have a negative impact on coping with the condition. "When my sugar levels were high, I refused to have insulin," he admits, "and when my sugar levels were low, I refused to eat."

Today, Martin chooses not to see himself as a victim of his condition. "I think one should take responsibility for one's own condition and be pro-active and enthusiastic about managing it," he says unequivocally.

### Why he's involved in DAWN Youth

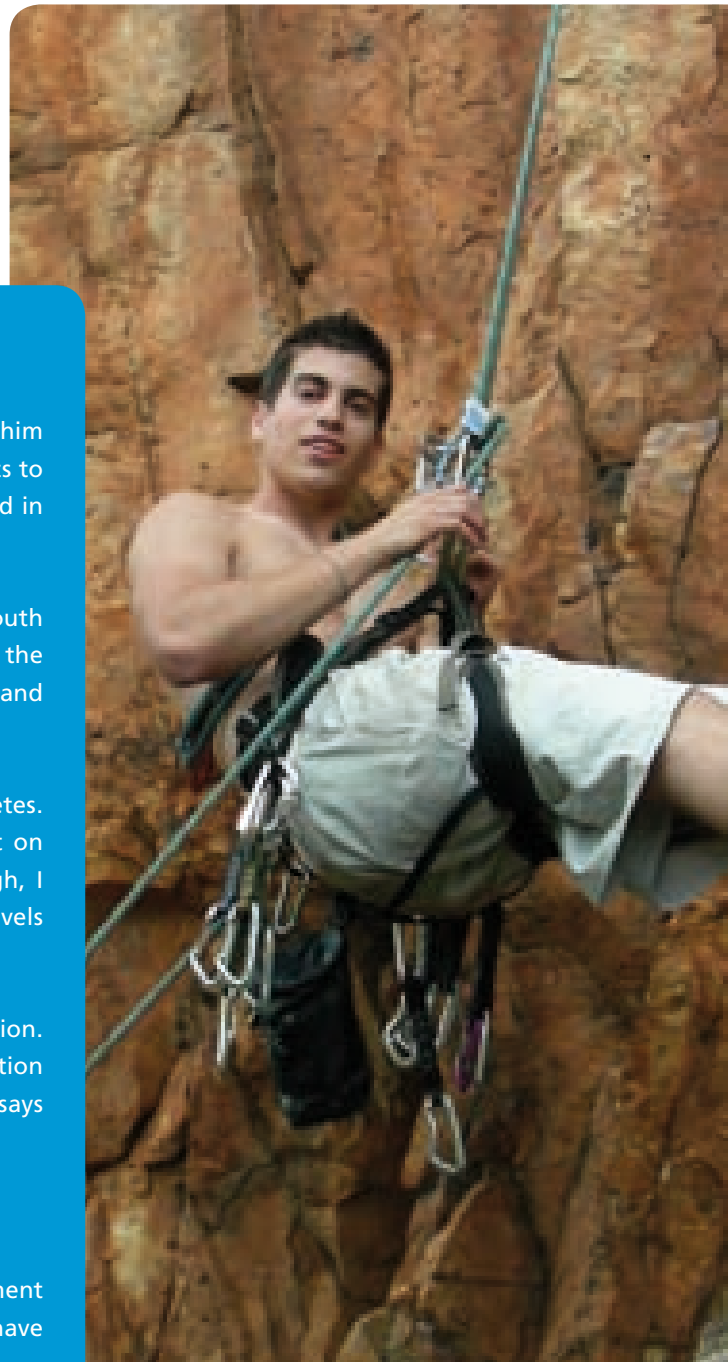
"I realise that children with diabetes share a similar predicament to the one that I faced as a child," Martin says. "This is why I have chosen to be involved in DAWN Youth.

Beyond that, he says he was embarrassed about having diabetes when he was younger, and "being embarrassed by diabetes is outright dangerous in my opinion. For this reason, I am committed to DAWN's work to change the stigma attached to diabetes."

### Martin's advice to others

"The best advice that I can give is to embrace one's condition, not feel embarrassed and always ensure that people around you are sufficiently educated to handle any crisis that could occur. Another is to know that with proper care, your lifestyle does not need to be limited by being a person with diabetes."

**"I felt angry, frustrated and behaved like a monster!"**



# United Kingdom

## Firbush youth diabetes project: more than just a holiday

Every August, young people with type 1 diabetes from all over the UK aged 16 to 21 spend a week together at Firbush Point in Scotland playing sports and making friends. But Firbush is much more than a holiday. At Firbush, young people with diabetes make friends and exchange positive messages about living with diabetes.

The project began in 1983 as the brainchild of Dr. Jim Farquar, an Edinburgh paediatrician. Back then, diabetes care was not optimal in many places and little was being done to address the needs of youth. His idea was to bring youth together to meet at Firbush and then maintain a support network with young adults in their home areas.

**“I learned more about what it’s like to live with diabetes in 7 days at Firbush than the previous 10 years in my clinic.”**

### Excellent learning opportunity for healthcare professionals

The project is now run by Dr. Alan Connacher and Dr. Colin Perry along with eight volunteer diabetes healthcare professionals. Firbush encourages aspiring specialists to give their time to this unique project, and in fact specialists report that they learn more about diabetes from the adolescents at Firbush than anywhere else. They take this understanding back to their clinics with them to benefit young people with diabetes all over the UK.

The camp addresses a fundamental aspect of what DAWN Youth is all about—the psychosocial impact of diabetes on young people. It also helps increase understanding of what it’s ‘really’ like living with diabetes. Each day begins with facilitated group discussions in which young people share issues and experiences. The agenda is very flexible but the same topics recur: complications, glycaemic control, recreational drugs and sexual issues. The effect on staff is considerable, and one experienced diabetes nurse comments, “I learned more about

what it’s like to live with diabetes in 7 days at Firbush than the previous 10 years in my clinic.”

### Increasing understanding, promoting life changes

Firbush is an excellent example of a project that benefits both people with diabetes and healthcare professionals. This understanding will be furthered this year at Firbush, when all young people attending the camp will complete the DAWN Youth web survey designed to generate dialogue around the attitudes, wishes and needs of young people with diabetes and their families. The camp also helps promote life changes. The confidence young people gain there prompts choices to go to university, travel Europe, or find a sport. And every year staff receives letters from parents thanking them for the difference Firbush has made to their children.

### Long-term enthusiasm

And for participants, the enthusiasm carries on long after leaving Firbush. Doctors who volunteered at the camp even enjoy the occasional unexpected visitor: “I walked into my Monday diabetes clinic to see the smiling face of a young boy who had been at Firbush earlier in the year. He was going to go to college in Glasgow and wanted to drop in and say hi. Most of the time we are trying our best to get young people to attend appointments!”

Elliott Maddocks, who attended the camp in 2004, is enthusiastic about his Firbush experience: “There is a huge sense of excitement throughout the week which is very different to anywhere else. The staff is extremely good at what they do and they also help push your boundaries.”



# USA



## CWD friends for life conference

Imagine the feeling of coming down for breakfast and seeing 2,500 people, all from families with diabetes, and seeing hundreds of children checking their glucose levels and injecting insulin. You suddenly feel that you are not alone.

That's the experience of many children who attended the Children With Diabetes—Friends for Life Conference, an event specifically for children and youth living with diabetes and their families. The conference, held in Orlando, Florida, brings reality to the DAWN Youth message and demonstrates that action is necessary to understand children and families affected by diabetes. The conference was also an opportunity for families to be part of the DAWN Youth WebTalk survey.

### Sharing emotional challenges

Families come to Friends for Life to hear about the latest in diabetes management and research, as well as to share the emotional challenges of living with diabetes with other families just like them. For children with diabetes, Friends for Life is often the first time they come into contact with other children with the same condition. There, children find a level of understanding that is often lacking in their everyday lives. At Friends for Life, there are no odd looks or judgment. Just complete and welcoming acceptance.

**For children with diabetes, Friends for Life is often the first time they come into contact with other children with the same condition.**

### Support for siblings, too

And for siblings without diabetes, there is a unique kinship to be found. Often overlooked in discussions about diabetes, siblings are as affected as everyone else in the family. Friends for Life has special sessions just for siblings, led by psychologists and aided by veteran CWD siblings. Just like mom and dad and the child with diabetes, CWD's siblings are among friends.

### Useful link

[www.childrenwithdiabetes.com](http://www.childrenwithdiabetes.com)

## Dana Lewis

Dana Lewis, 19, was diagnosed with type 1 diabetes at the age of 14. She is committed to making a difference for young people with diabetes through her work with the American Diabetes Association (ADA) and the International Diabetes Federation (IDF).

The Huntsville, Alabama native has seen a lot of changes in the world of diabetes. New technologies, new doctors, new theories on how to control the disease—navigating the information can be tough, and Dana became involved with the ADA to reach out to other young people for support and advice.

That got the ball rolling, and Dana set up a teen diabetes support group. She was soon appointed National Youth Advocate for the ADA, speaking at various events and promoting awareness of young people with diabetes issues. But Dana didn't stop there. She also helped create the ADA youth message board and serves on the National Youth Strategies committee. Dana is also proud of her work as an IDF Youth Ambassador and her role in driving the adoption of the UN Resolution on Diabetes.

### Why she's involved in DAWN Youth

Dana is driven by the desire to involve young people in the fight against diabetes. "I became involved with DAWN Youth because I believe it is important for youth to speak out on living with diabetes. Successfully dealing with diabetes takes more than balancing insulin, food, and exercise—it takes a lot of support and a positive attitude."

### Dana's advice to others

"I think that it is important to never give up. Never give up hope that a cure will be found in our lifetime. Never give up on taking care of ourselves while we look for a cure. Most importantly, never give up on living a wonderful life filled with lots of interesting adventures and experiences!"

**"I think that it is important  
to never give up."**



# DAWN initiatives around the world focusing on children and young people

In this booklet we have defined the rationale and urgency to act on psychosocial issues faced by children and young people with diabetes. By sharing the stories of nine countries who have already started up DAWN Youth initiatives we have shown concrete ways by which action can be taken, and already is being taken.

This is just the beginning—through the DAWN Youth initiative we want to invite EVERYONE to join the “movement” and call-to-action for improved psychosocial support for children and young people with diabetes and their families.

The DAWN philosophy is already being brought into action and this visual will allow you grasp the activities going on around the world focusing on children and young people. It is important to get the word out globally in order to inspire and share the knowledge each initiative has developed.

## Poland

The diagnosis of diabetes represents a life crisis for children and parents, but a new DAWN-based Polish national survey shows that psychosocial attitudes and reactions to diagnosis play a major role in future diabetes treatment success. The survey, which was performed in 13 paediatric centres throughout Poland, revealed that one year after diagnosis, most youth with diabetes handle their new responsibility well with the support of their parents. This strongly suggests that psychosocial attitudes impact adherence to treatment and can lead to improved outcomes.

## Spain

In Spain, a number of initiatives that reflect the DAWN Youth philosophy are making news, most importantly two comprehensive surveys that examine children’s needs and worries about living with diabetes, and countrywide parent training in advanced diabetes care, including psychosocial aspects and issues. Abstracts of the surveys, whose topics are “Assessing the Needs of Children with Diabetes in the School” and “The Burden of Having Diabetes”, have been accepted by ISPAD 2007.

## Egypt

AYD (Assistance to Young Diabetics) in Egypt is providing therapeutic patient education to more than 2000 children and increasing reach to neighbouring countries and internationally through remote training and translation of materials. Part of this education consists of a set of cartoon booklets for children and their families teaching them every aspect of living with diabetes.

## Ukraine

The International Youth Diabetes Festival "Ukraine-ARTEK-2007" was held in September 2007 in the Ukraine and was an opportunity for 100 young people with diabetes from different countries to meet, communicate with each other and the world and promote a better future for young people with diabetes. The international media was also on hand to cover the festival, which included contests, games, sporting events, discussions and role play. The festival attracted much-needed attention to the issues of young people with diabetes in both the Ukraine and abroad.

## Turkey

"Kitchen Frenzy" is a CD based project aiming to teach children about healthy nutrition and foods to be avoided to prevent obesity. The inexpensive CD, which can also be used interactively in the child's home, will teach children in a fun way about healthy living, food and calorie values, and the benefits and costs of food. "Kitchen Frenzy" is also expected to be useful to parents and teachers in terms of providing information about health and nutrition.

## Singapore

A large-scale observational study focusing on children with type 1 and type 2 diabetes has been performed in partnership between IDF and Novo Nordisk Asia Pacific. Involving 96 paediatric centres, the study aimed to establish baseline data, including central HbA<sub>1c</sub> values, on the health of children and adolescents with diabetes in the Western Pacific Region. The study was well received at international conferences such as ISPAD and has garnered full media coverage both in Singapore and abroad.

## India

At Bharti Hospital in Karnal, India, diabetes healthcare personnel have developed a low-cost educational game that spreads the DAWN philosophy to children with diabetes, their siblings and friends. It enhances positive health-related behaviour, improves bonding between siblings, and creates a bridge of understanding with classmates and friends. And the low cost of the game based on snakes and ladders—just 25 cents for the board and 6 cents for the dice—makes it an ideal intervention for children with diabetes in resource-challenged societies.

## Australia

Diabetes Counselling Online Inc. is a web-based Australian charitable organisation providing psychosocial counselling, support and education services. The aim is to develop strategies for effective diabetes self-management and encourage connections between people with diabetes. The organisation, a DAWN Award runner-up, offers online support, forums and chat rooms and has plans to begin moderated online chat sessions on topics nominated by young people with diabetes and suggested by the counselling team. There will also be a chat room for parents.

