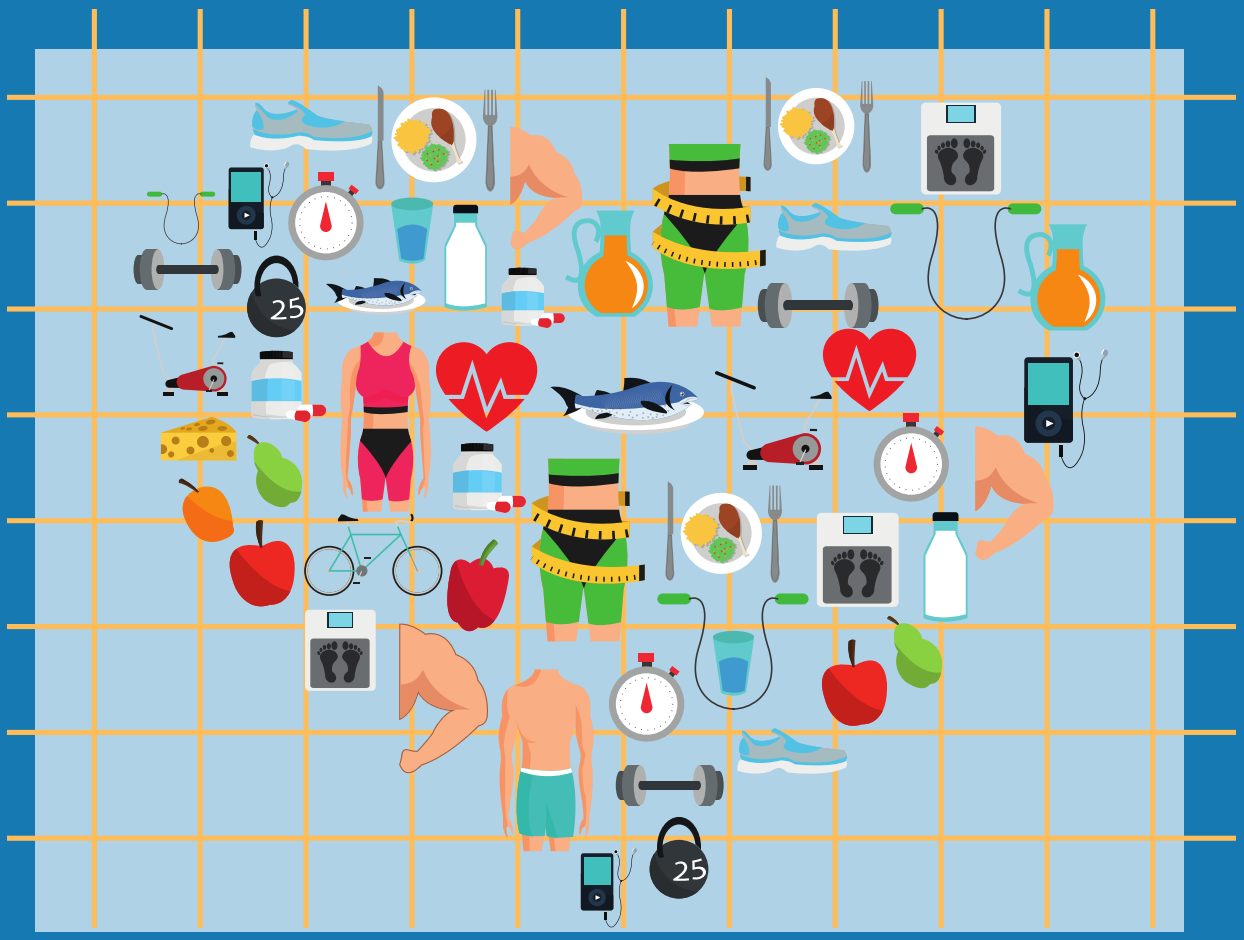
Co-funded by the European Union

diabetEASE

LEARNING TOOLKIT

for teachers and sport coaches



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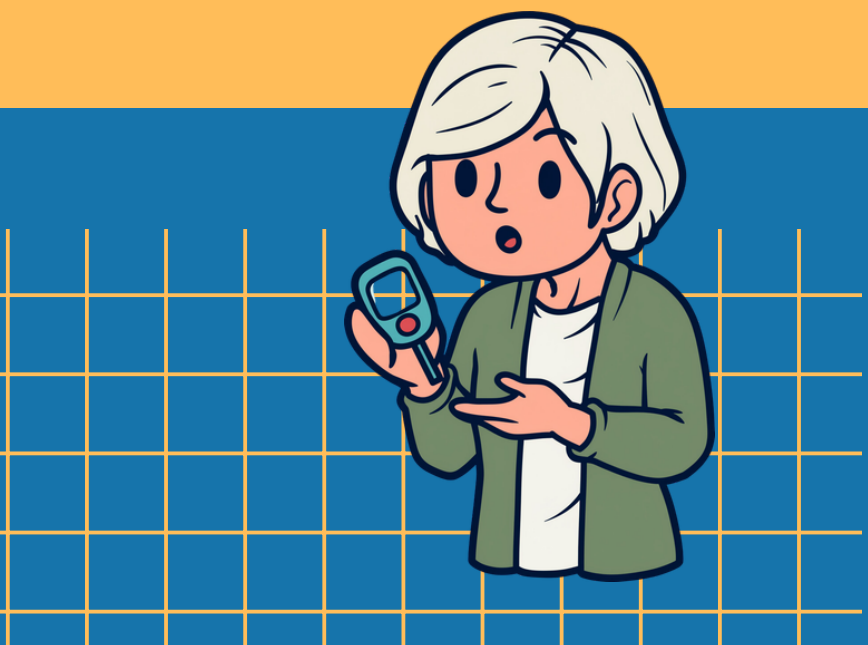
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INTRODUCTION

The developed Toolkit is part of the DiabetEASE project, an Erasmus+ project co-funded by the European Union and implemented within the Vocational Education and Training (VET) sector through transnational cooperation between partners from Bulgaria, Spain, and Cyprus.

The Toolkit provides comprehensive educational materials tailored to the needs of teachers, coaches, personal trainers, and non-formal educators, aiming to enhance their understanding of diabetes management and strengthen their ability to support children and young people with diabetes. It offers practical and accessible guidance to promote safe participation, inclusion, awareness, and empowerment in both educational and sports environments.

Within the ToolKit chapter there is a foundational overview of diabetes in children and adolescents, with a focus on the forms of diabetes most commonly encountered in educational and sports settings. It explains how Type 1 and Type 2 diabetes develop, how insulin works in the body, and why students with diabetes require specific medical, nutritional, emotional, and activity-related support during the school day. By understanding these core concepts, professionals working with children will be better prepared to promote a safe, inclusive, and supportive environment for students living with diabetes.



MODULE 1: TREATMENT



INTRODUCTION
GENERAL ABOUT ALL COUNTRIES

This chapter explores how diabetes treatment in children and young people is organised and delivered in three different European contexts: Spain, Cyprus, and Bulgaria.

Although the basic principles of diabetes care are the same everywhere such as the use of insulin, blood glucose monitoring, healthy nutrition, and physical activity the way treatment is accessed, supported, and managed can vary from country to country.

This chapter helps educators and coaches understand these national differences, including healthcare structures, school practices, and the level of support available to students with diabetes. By gaining insight into how treatment works in each context, professionals can better support children from diverse backgrounds and collaborate more effectively with families and healthcare teams.

SPAIN



DIABETES CARE WITHIN THE SPANISH HEALTHCARE SYSTEM

Spain has a universal public healthcare system that provides comprehensive care for children and adolescents with Type 1 Diabetes (T1D). Most essential diabetes-related healthcare services are covered by the National Health System (Sistema Nacional de Salud, SNS), including:

- Insulin therapy (rapid-acting and long-acting insulin analogues).
- Regular endocrinology and paediatric endocrinology follow-up.
- HbA1c and other laboratory testing.
- Blood glucose monitoring supplies.
- Continuous glucose monitoring (CGM) systems.
- Insulin pumps and advanced insulin delivery technologies for eligible patients.
- Diabetes education delivered by specialised healthcare professionals.

Although access to treatment is largely publicly funded, the availability of certain technologies and support services may vary slightly among Spain's Autonomous Communities.

TREATMENT APPROACHES

The management of Type 1 Diabetes in Spain follows an evidence-based, multidisciplinary model involving endocrinologists, paediatricians, diabetes specialist nurses, dietitians, psychologists, families and educational professionals. The main objectives are to achieve optimal glycaemic control, prevent acute and chronic complications, and support the child's full participation in daily life and education.

Intensive insulin therapy is considered the standard of care and is provided through either multiple daily injections (MDI) or continuous subcutaneous insulin infusion (CSII) using insulin pumps. Treatment plans are individualised according to age, lifestyle, metabolic control and patient preferences.

Continuous glucose monitoring has become an integral component of diabetes management in Spain. The National Health System progressively expanded public funding for flash glucose monitoring and real-time CGM systems, particularly for children and adolescents with T1D and for individuals at increased risk of hypoglycaemia. These technologies have significantly improved glucose monitoring, safety and quality of life.

The use of insulin pumps and hybrid closed-loop systems is increasing throughout Spain, especially in paediatric populations. These technologies help improve time-in-range, reduce hypoglycaemia and support more flexible diabetes management. Access is determined according to clinical criteria established by specialised diabetes teams.

PATIENT EDUCATION AND SELF-MANAGEMENT

Therapeutic education is recognised as a fundamental component of diabetes care in Spain. Following diagnosis, children and their families receive structured education covering insulin administration, glucose monitoring, carbohydrate counting, management of hypoglycaemia and hyperglycaemia, physical activity, nutrition, and the use of diabetes technologies.

Progressive development of self-management skills is encouraged according to the child's age and level of maturity. Children are supported in understanding their condition, recognising symptoms, making informed decisions and managing diabetes safely in different settings, including school.

In the educational setting, collaboration between families, healthcare professionals and school staff is considered essential. Several Spanish regions, including Navarra, have established formal protocols to ensure safe diabetes management at school, including individualised care plans, staff training and emergency procedures for hypoglycaemia and hyperglycaemia.

CURRENT CHALLENGES IN SPAIN

Despite significant advances in diabetes care, several challenges remain. Regional differences in access to diabetes technologies and specialised services can lead to inequalities in healthcare provision across the country.

Another challenge is ensuring equitable access to structured diabetes education and specialised diabetes nursing services, particularly in rural areas where healthcare resources may be more limited. Professional organisations continue to advocate for strengthening diabetes education programmes and increasing the availability of trained healthcare personnel.

Within schools, although important progress has been made through regional protocols, variability still exists regarding staff training, confidence in diabetes management, and the implementation of support measures for students with T1D. Ongoing collaboration between healthcare and educational systems remains essential to guarantee a safe, inclusive and supportive learning environment for all children living with diabetes.

BULGARIA



DIABETES CARE WITHIN THE BULGARIAN HEALTHCARE SYSTEM

The Healthcare system in Bulgaria covers either fully or partially a big part of the medical care of diabetes including:

- Insulin
- Medication
- Regular endocrinologist check-ups
- Medical tests (blood sugar, HbA1c)
- Glucometers or test-strips
- Monitoring sensors
- Insulin pumps

While a big part of the main medical necessities are covered by the healthcare system, the additional expenses should be covered by the child's parents so it is still challenging to manage the condition optimally.

TREATMENT APPROACHES

Taking care of diabetes requires a multidisciplinary approach combining medical care, nutritional guidance, psychological support and adequate physical activity.

Within the Bulgarian healthcare system basal (long-acting) and bolus (rapid-acting) insulin are provided as well as the needed supplies such as pens, syringes or glucometers for checking blood glucose.

Since 2021 CGM or continuous glucose monitoring is reimbursed as there are multiple approved devices offered to measure blood glucose.

Since 2020 insulin pumps are also fully reimbursed by the healthcare system and are becoming more widely used though certain criteria are required for access (such as frequent hypoglycemia, poor control, etc.)

Although the Bulgarian healthcare system offers a lot of care for the patients with diabetes, still doctor initiative and knowledge from the patient could optimize the process.

PATIENT EDUCATION AND SELF-MANAGEMENT

When diagnosed with diabetes doctors are obligated to offer the needed education about the specifics of the condition such as the different way their bodies function, the symptoms of hypo-/hyperglycemia, the steps for emergency care, etc.

If a child is diagnosed, while the parents are the main responsible people for doctor's appointments, the procurement of medication or supplies, the child quickly learns how to check their own blood glucose levels while also monitoring their body signals.

Even at a young age it is important that children are also well aware of the specifics of their condition in order to keep them safe in different situations.

CURRENT CHALLENGES IN BULGARIA

Diabetes prevalence is currently high and rising and around 10% of cases are undiagnosed. Prediabetes affects around 20% of the population which makes the need for awareness about diabetes even higher.

In Bulgaria, there are poor screening systems for diabetes and the overall promotion of early check-ups is not common among the population.

The prevention of diabetes is also not very well handled as obesity rates are rising and among young people eating an unhealthy diet especially when at school is very common.

There are more initiatives both in schools and kindergartens for optimizing the nutritional and overall health habits of children but still it is a subject that needs to be developed.

Often there are financial challenges despite the public coverage as patients have to pay for themselves for sensors, extra test-strips or pumps as well as occasionally more specific food.

In smaller cities the workforce is also lower which means there are less doctors to diagnose diabetes for citizens in the countryside or for regular check-ups.

PREVENTION

Early prevention is important as it can lower the overall percentage of diabetes among the population.

Early screening, doctor check-ups or medical tests could rule out the possibility of diabetes even if there are no clear symptoms.

Overall care for the physical health such as enough physical activity, proper whole-foods nutrition, mental health care and stress management are crucial for prevention of disease in general.

CYPRUS



Diabetes mellitus represents one of the most prevalent chronic conditions in Cyprus, requiring continuous medical management and structured healthcare support. The condition affects both children and adults, with Type 1 diabetes being most common in school-aged populations. According to data from the International Diabetes Federation, approximately 1 in 10 adults in Cyprus live with diabetes (International Diabetes Federation, 2021). Effective treatment is essential not only for maintaining glycemic control but also for preventing both short-term complications, such as hypoglycemia, and long-term complications affecting cardiovascular, renal, and neurological health.

In Cyprus, diabetes care is primarily delivered through the General Healthcare System (GeSY), which aims to ensure equitable access to healthcare services for all residents. The system provides coverage for medical consultations, pharmaceutical treatments, and essential diagnostic procedures, forming the foundation for diabetes management across the country (Health Insurance Organisation [HIO], Cyprus, n.d.) .

DIABETES CARE WITHIN THE CYPRIOT HEALTHCARE SYSTEM

The introduction of GeSY strengthened access to diabetes-related healthcare services by improving access to:

- Endocrinologists and diabetes specialists
- General practitioners for ongoing monitoring
- Prescription medication, including insulin
- Diagnostic laboratory tests (e.g., HbA1c monitoring)
- Screening for diabetes-related complications
- Referral pathways for specialist care when required

For people living with diabetes, management is based on ongoing medical follow-up and individualized treatment plans (ISPAD, 2022).

Routine care commonly includes:

- Blood glucose monitoring
- HbA1c assessments every 3–6 months
- Medication review and dose adjustments
- Nutritional guidance
- Screening for complications affecting eyes, kidneys, nerves and cardiovascular health

This structured approach aims not only to treat diabetes, but to support long-term disease management and prevention.

The Ministry of Health of the Republic of Cyprus identifies diabetes as a priority public health issue and emphasizes the importance of prevention, management, and coordinated healthcare support (Ministry of Health, Cyprus, 2016).

TREATMENT APPROACHES

Management of diabetes in Cyprus follows international clinical guidelines and is tailored to the specific type and needs of each patient (ISPAD, 2022).

For individuals with Type 1 diabetes, treatment relies on lifelong insulin therapy. This may be administered through multiple daily injections (MDI) or through insulin pump therapy, depending on the patient's condition and access to technology. Continuous glucose monitoring (CGM) systems are increasingly used to support better glycemic control, although access to advanced diabetes technologies may vary depending on healthcare structures and individual circumstances. Another way of managing diabetes is carbohydrate counting and self-management education (ISPAD, 2022).

Recent developments in diabetes technology have improved management options, although equitable access to advanced technologies remains an ongoing issue (ISPAD, 2022).

Studies from Cyprus have also documented rising incidence of Type 1 diabetes in children, reinforcing the importance of strong pediatric diabetes care systems (Skordis et al., 2012).

Prevention and early intervention are especially important given the growing burden of Type 2 diabetes in Cyprus. For individuals with Type 2 diabetes, treatment often begins with lifestyle interventions, including dietary modifications and increased physical activity. When necessary, oral antidiabetic medications are prescribed, and in more advanced cases, insulin therapy may also be required.

Regular blood glucose monitoring remains a cornerstone of diabetes management. Patients are trained to self-monitor their glucose levels and adjust their treatment accordingly, promoting autonomy and effective self-care (ISPAD, 2022).

PATIENT EDUCATION AND SELF-MANAGEMENT

Effective diabetes treatment extends beyond medication. Patient education is considered a central component of care and may include support in: blood glucose monitoring, insulin administration, hypoglycaemia management, nutrition and carbohydrate counting, sick day management, physical activity adjustment and psychosocial coping (ISPAD, 2022).

Empowering individuals and families to manage diabetes confidently improves outcomes and supports independence. For children, this education also has implications for safe diabetes management in school settings.

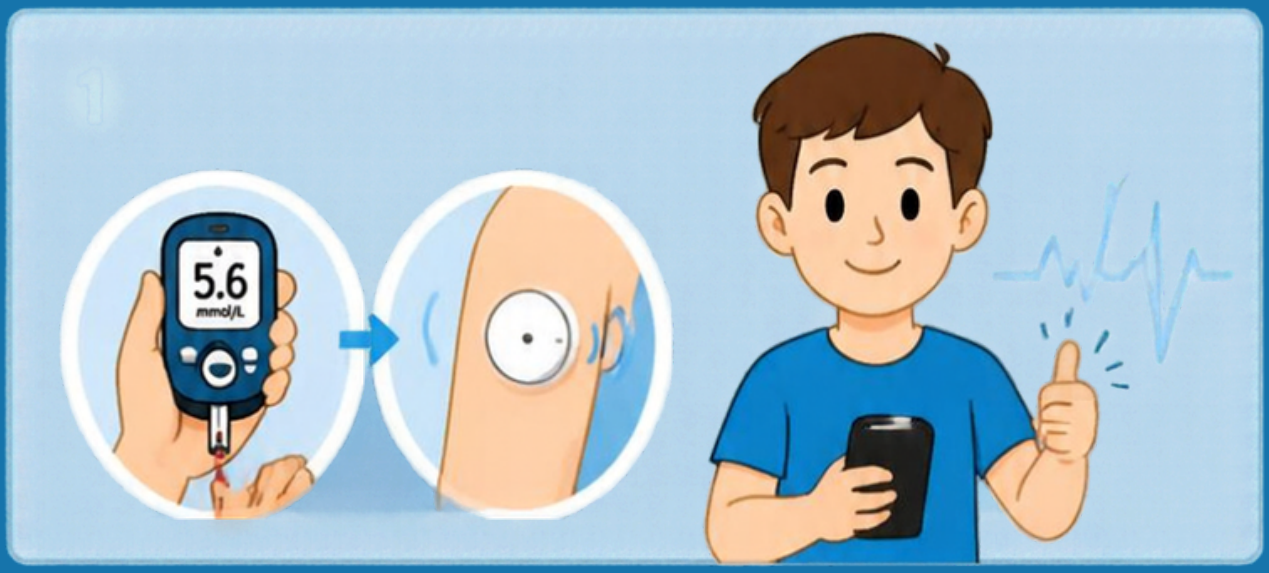
CURRENT CHALLENGES IN CYPRUS

Despite progress, several challenges remain in diabetes care in Cyprus. Diabetes has been identified as a significant public health concern at the national level, requiring continued strengthening of prevention, management and support systems (Ministry of Health, Cyprus, 2016). Access to diabetes care is supported through the General Healthcare System (GeSY)(HIO, Cyprus, n.d.) . However, access to specific treatments and technologies may depend on system structures, reimbursement policies and individual circumstances.

In addition, effective diabetes management relies heavily on patient education and self-management support. International evidence highlights that structured education and access to modern technologies significantly improve outcomes for people living with diabetes (ISPAD, 2022). Ensuring consistent access to these elements remains an important area for ongoing development within healthcare systems, including Cyprus.

PREVENTION AND EARLY DETECTION

Given the increasing prevalence of diabetes and pre-diabetes, prevention and early detection remain important priorities in Cyprus. National strategies emphasize the need for strengthened public health initiatives, including awareness campaigns, early screening, and promotion of healthy lifestyle behaviours (Ministry of Health, Cyprus, 2016).

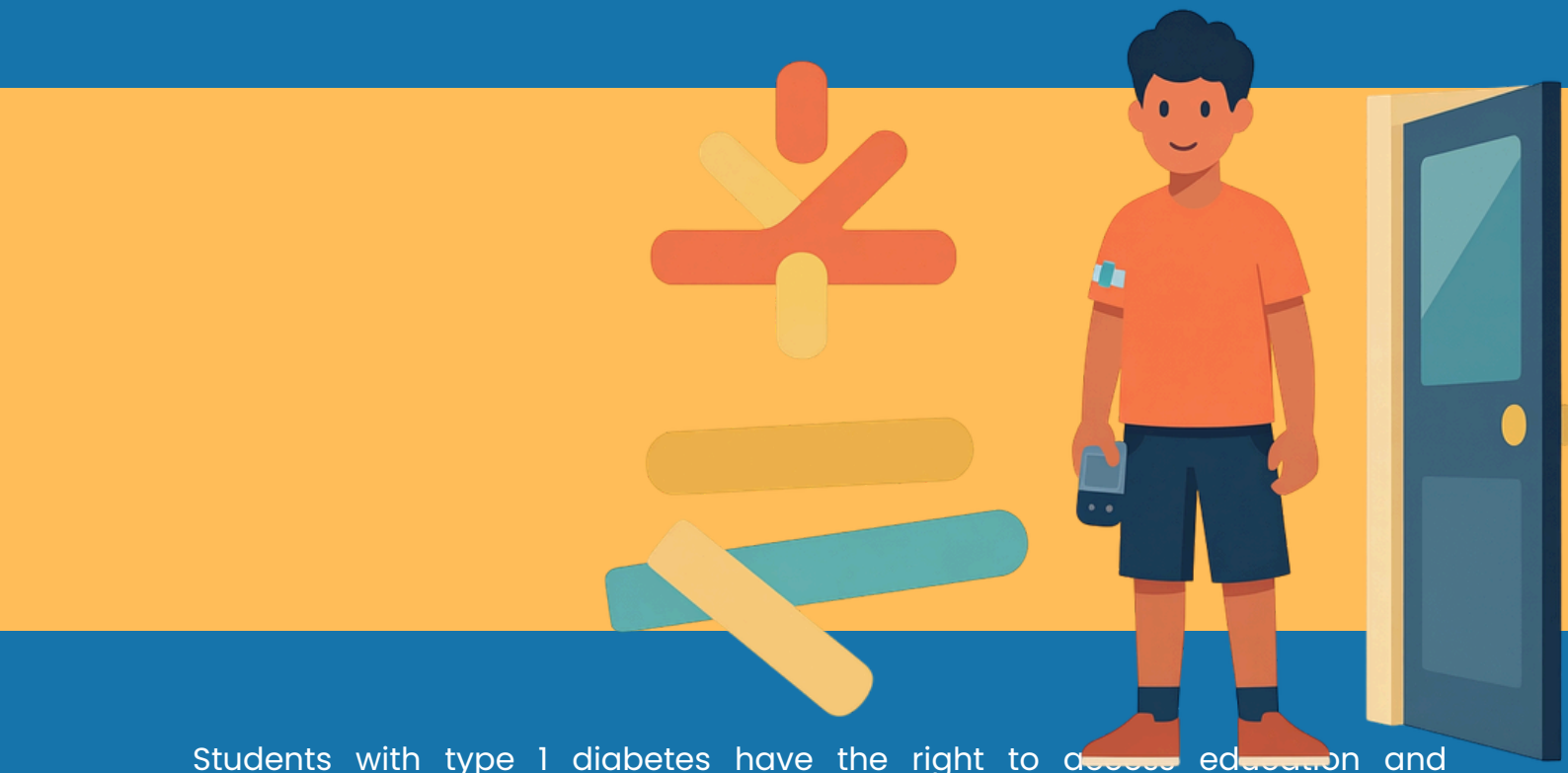


COMPARATIVE OVERVIEW OF DIABETES CARE IN SPAIN, BULGARIA AND CYPRUS

Although Spain, Bulgaria and Cyprus share the same fundamental principles of diabetes treatment, differences exist in healthcare organisation, access to technology, education programmes and school support systems. The table below provides a brief overview of the main similarities and characteristics of each country.

Aspect	Spain	Bulgaria	Cyprus
Healthcare system	Universal National Health System (SNS).	National Health Insurance System.	General Healthcare System (GeSY).
Access to insulin	Publicly funded.	Publicly funded.	Publicly funded.
Continuous Glucose Monitoring (CGM)	Widely funded for children and eligible groups.	Reimbursed under specific conditions.	Increasingly available.
Insulin pumps	Available through specialised diabetes teams.	Reimbursed for eligible patients.	Available depending on clinical needs
Diabetes education	Structured therapeutic education programmes.	Education provided through healthcare professionals.	Part of diabetes management services.
School support	Regional school diabetes protocols.	Variable implementation.	Variable implementation.
Current priorities	Equity across regions and school support.	Prevention, awareness and early detection.	Access to technology and continuity of care.

MODULE 2: RIGHTS OF STUDENTS WITH DIABETES



Students with type 1 diabetes have the right to access education and participate safely in all school and extracurricular sports activities without discrimination. International standards such as those from ISPAD also emphasize that children with diabetes must receive appropriate care and support to remain safe and fully engaged in both classroom learning and physical or recreational activities.

The Decalogue of Rights for Students with Type 1 Diabetes in School and Extracurricular Sports Contexts presents the fundamental rights

Rights of students
with type 1 diabetes

Every student deserves safety, dignity and full participation.

1. **Right to non-discrimination.**
2. **Right to inclusive participation on equal terms.**
3. **Right to safety and adequate care in all settings.**
4. **Right to trained and competent staff.**
5. **Right to an individualized care plan.**
6. **Right to use necessary medical devices at all times.**
7. **Right to full participation in sports and physical activity.**
8. **Right to access food and carbohydrates whenever needed.**
9. **Right to privacy and respectful treatment.**
10. **Right to family involvement and transparent communication.**

Students living with diabetes have the right to feel safe, supported and included in the school environment. Because diabetes requires daily medical management, students may need accommodations during the school day in order to maintain their health and fully participate in education. Managing diabetes during the school day may require regular blood glucose monitoring, insulin administration, access to food or medication, and the ability to respond quickly to changes in their condition. Ensuring that these needs are met without stigma or restriction is essential for both health and academic success. Schools play a key role in creating an environment where students can manage their condition confidently while participating fully in all activities.

International guidance emphasizes that students with diabetes should be able to attend school safely, participate equally in all school activities, and receive appropriate support without discrimination.

Students with diabetes have the right to access diabetes care during school hours. They should be able to check blood glucose when needed, use diabetes devices (glucometers, CGMs, insulin pumps), administer insulin or receive support when appropriate, have immediate access to snacks, water and emergency treatment and respond promptly to hypoglycaemia or hyperglycaemia.

These measures are essential for safety and should be supported during lessons, exams, excursions and extracurricular activities.

RECEIVE EMERGENCY SUPPORT

Students have the right to appropriate support in diabetes-related emergencies.

School personnel should be able to recognize and respond to hypoglycaemia, hyperglycaemia and symptoms requiring urgent intervention. International recommendations stress that schools should have clear emergency response procedures and trained personnel available.

RIGHTS RELATED TO EQUAL PARTICIPATION

Students with diabetes have the right for full participation in classroom learning, physical education, school trips, sports and of course in social and extracurricular activities. Diabetes should never be a reason for exclusion. Students should be supported to engage in school life on an equal basis with peers.

CYPRUS

In Cyprus, the right to education is protected under national legislation, and inclusive education principles are promoted across the educational system. However, specific standardized policies addressing diabetes management in schools may vary between institutions.

This can place increased responsibility on families or individual teachers and highlights the importance of stronger structured support systems. Support for students with diabetes often depends on the collaboration between parents, school staff, and healthcare providers (Ministry of Education, Sport and Youth, Cyprus, n.d.).

RESPONSIBILITIES OF SCHOOLS AND STAFF

Supporting students' rights also involves school responsibilities. Schools should provide individualized support planning. Each student may benefit from an individualized diabetes management plan that includes:

- routine diabetes care needs
- emergency procedures
- roles of school personnel
- communication procedures with family
- support during excursions and activities

ISPAD (global professional organization dedicated to improving the lives of children, adolescents, and young adults with diabetes) guidelines strongly recommend individualized diabetes management plans for students at school (Goss et al., 2024).

STAFF AWARENESS AND TRAINING

School staff should have at least basic awareness regarding diabetes fundamentals, recognizing emergencies, supporting routine needs and reducing stigma. Even when specialist staff are unavailable, trained school personnel can play an important support role (Goss et al., 2024).

BULGARIA

The condition of diabetes does not exclude children in any of the rights that their non-diagnosed peers have.

Fundamental rights such as access to education, being able to be safe and secure in a school environment, to actively participate in the education process as well as any school activity are completely relevant to children with diabetes.

There could be some additional rights to children with diabetes that consider the specific care they need:

- They have the right to get support from specialists such as psychologists or a resource teacher for personal development
- They could have adapted schedules according to their medical needs
- They are allowed to be absent with medical justification
- They are allowed to leave class for medical reasons such as to administer insulin, have a snack in a case of hypoglycemia or go to the restroom in cases of hyperglycemia as often as needed

Among these rights it is of major importance that the school focuses on contributing to healthy psycho-social microclimates that are inclusive, not stigmatizing and supportive through workshop activities, awareness classes and behaviour principles for all children.

STAFF AWARENESS AND RESPONSIBILITY

While children with diabetes have equal rights as their peers, schools often meet certain challenges.

In Bulgaria there are no detailed national protocols for insulin administration at school or teacher responsibility. The lack of a national agreement requires regulation on a micro-level within the different schools. This requires optimizing the communication between the school's principle, teachers, medical staff and other staff in order to have synchronicity between the plan of action, the responsibilities and duties of all parties.

Teacher training on the matter could become an essential part of their additional professional development as they need to be prepared for different situations and oftentimes teachers do not feel prepared enough.
In general, teachers should:

- Be aware of the number of children they work with who are diagnosed with diabetes
- Be aware of the individual plans of each child - whether they use pens, pumps, etc.
- Establish a good relationship with the child in order to better their communication in order to optimize the different processes according to the different needs of the child
- Be aware of where the child keeps their insulin (if they have it on them or if it is with the school's medical staff) in order to be able to act quickly in cases of emergency
- Possibly also have contact information of the child's parents for cases of emergency

Despite the fact there are certain challenges teachers and students face at school, raising the awareness and knowledge on the subject should equip them with more security and confidence for handling the different situations the condition may provoke.



SPAIN

RIGHTS RELATED TO EQUAL PARTICIPATION

In Spain, students with Type 1 Diabetes (T1D) have the right to equal access to education and full participation in all school activities. These rights are protected through national legislation promoting inclusion, non-discrimination and educational equity for students with health conditions and special healthcare needs. Students with diabetes should be able to participate in classroom learning, physical education, extracurricular activities, school trips and social events on the same basis as their peers, provided that appropriate support measures are in place.

Diabetes should never constitute a reason for exclusion from educational opportunities. Schools are expected to make reasonable accommodations that enable students to manage their condition safely while maintaining autonomy and full participation in school life. This rights-based approach aligns with international recommendations, including the ISPAD Position Statement on Type 1 Diabetes in Schools.

RESPONSIBILITIES OF SCHOOLS AND STAFF

The protection of students' rights requires active involvement from schools and educational staff. Across Spain, increasing emphasis has been placed on coordinated care between families, healthcare professionals and schools. In several autonomous communities, including Navarra, formal school diabetes protocols have been developed to ensure safe and inclusive educational environments.

Every student with diabetes should have an individualized diabetes care plan that clearly describes:

- Daily diabetes management requirements.
- Blood glucose monitoring procedures.
- Insulin administration arrangements.
- Recognition and treatment of hypoglycaemia and hyperglycaemia.
- Roles and responsibilities of school personnel.
- Communication procedures with families and healthcare professionals.
- Support measures during school trips, sports activities and extracurricular events.

These individualized plans facilitate consistent care, improve safety and promote equal participation in all school activities.

STAFF AWARENESS AND TRAINING

Teachers are not expected to become diabetes specialists; however, they should possess sufficient knowledge to support students safely and confidently during the school day. Training should enable staff to:

- Recognize signs and symptoms of hypoglycaemia and hyperglycaemia.
- Respond appropriately in emergency situations.
- Understand the student's individual diabetes management plan.
- Facilitate access to food, water, glucose monitoring and medication when required.
- Promote inclusion and prevent stigmatization.

The Protocol for Students with Diabetes in Schools implemented in Navarra specifically highlights the importance of training educational staff and establishing clear communication channels with healthcare teams. School personnel who support students with diabetes report greater confidence and improved ability to respond effectively when adequate training is provided.

CHALLENGES AND GAPS

Despite significant progress, challenges remain in ensuring consistent support for students with diabetes across Spain.

Access to school-based healthcare support varies among autonomous communities and educational centres. The availability of trained personnel, school nurses and formal diabetes protocols is not uniform throughout the country. Consequently, responsibility for diabetes management may sometimes fall heavily on families or individual teachers.

Additional challenges include:

- Variability in staff training and confidence levels.
- Limited availability of school nurses in many educational settings.
- Concerns regarding responsibility and liability in administering diabetes care.
- Insufficient awareness among some school communities.
- Risk of overprotection, which may unnecessarily restrict student independence and participation.

These challenges can affect both the safety and the educational experience of students living with diabetes.

RECOMMENDATIONS

To strengthen the protection of students' rights and promote inclusive education, Spanish schools should:

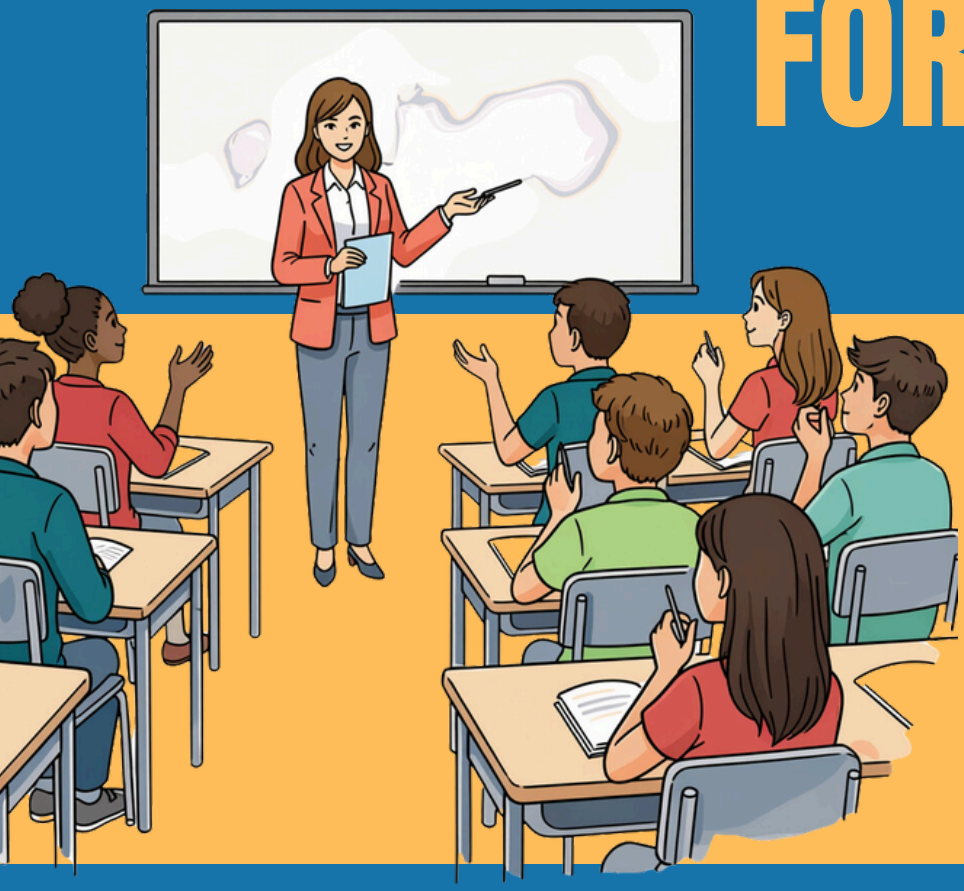
- Develop and implement standardized diabetes support protocols.
- Ensure all relevant staff receive basic diabetes awareness training.
- Use individualized diabetes management plans for every student with T1D.
- Strengthen collaboration between schools, families and healthcare teams.
- Facilitate participation in all educational, sporting and extracurricular activities.
- Promote student autonomy according to age and developmental level.
- Foster inclusive school environments that reduce stigma and discrimination.
- Establish clear emergency response procedures for diabetes-related situations.

Good practice should not focus solely on risk management but also on empowering students to participate safely, confidently and independently in school life.

CONCLUSION

In Spain, students with Type 1 Diabetes have the right to receive an inclusive education and to participate fully in all aspects of school life. Effective support depends on collaboration between educators, families and healthcare professionals, supported by individualized care plans and appropriate staff training. Continued efforts to standardize protocols and improve diabetes awareness within schools will help ensure that all students with diabetes can learn, participate and thrive in a safe and supportive educational environment.

KEY MESSAGES FOR SCHOOLS



Schools should...	Why it matters
Allow glucose monitoring when needed	Prevent health risks and support self-management
Support participation in all activities	Promote inclusion and equal opportunities
Ensure staff awareness	Improve safety and confidence
Maintain communication with families	Ensure consistent support
Respect student autonomy	Foster independence and wellbeing

MODULE 3: NUTRITION



FOOD IMPORTANCE IN DIABETES MANAGEMENT

While diabetes management could include certain types of medication treatment, nutrition plays a core role in taking care of a person's overall health. There is plenty of on-going research on optimizing the guidelines for food recommendations in order to make them accessible, sustainable and enjoyable. Majority of people may still believe that the proper diet for a person dealing with diabetes is very restrictive and difficult to maintain while this toolkit will focus on explaining some misconceptions about the restrictiveness of the diet recommendations, present some practical useful guidelines to include more types of food in a way that doesn't interfere with diabetes treatment and offer an overall healthy outlook on making food choices in a way that it truly becomes a lifestyle and not an everyday burden.

FUNDAMENTAL UNDERSTANDING OF THE MAIN FOOD GROUPS AND THE IMPORTANCE OF VARIETY IN A HEALTHY DIET

When talking about a healthy diet despite the different health conditions it is of big importance to have some basic guidelines on what food brings to our bodies and why having a balanced approach could be beneficial for optimizing overall health.

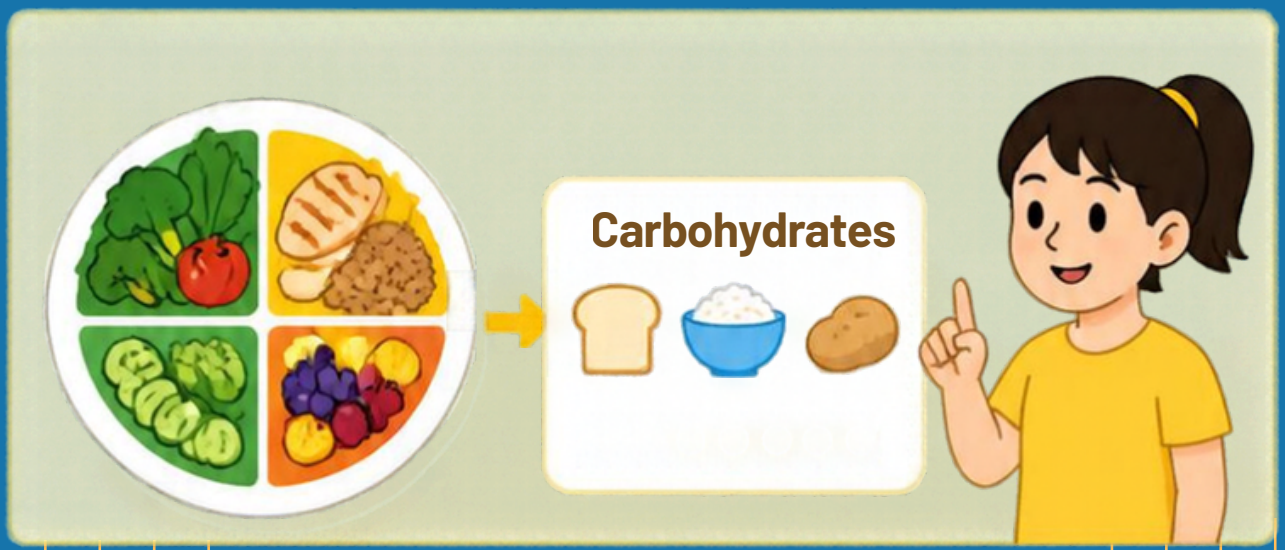
There are three main big food groups also known as macronutrients - proteins, carbohydrates and fats. They could be viewed as the building blocks of our bodies maintaining our tissues and muscles, creating our cells, giving our bodies energy. They all provide calories to our bodies, i.e. energy where both proteins and carbohydrates have 4kcal/gram and fat has 9kcal/gram.

First let's look at carbohydrates. They could be sugars, starches or fiber and are the body's preferred source of energy. They are divided into simple carbohydrates which give quick energy and complex carbohydrates which provide slower and sustained energy and take longer to be digested in the body. Fiber is important for our digestive health and it can be found in different foods. Overall main sources of predominantly carbohydrates are grains, legumes, fruits and vegetables.

The second macronutrient is the proteins. The main function of protein is to build and repair our cells, tissues and muscles given the fact that they are made of amino acids which are 20 types of molecules responsible for the regeneration of our bodies. The importance of their role is major as they take care of the enzymes in the body, the balance of hormones, our immune system and muscle strength. The main food sources that predominantly have protein are meats (especially lean), fish, eggs (egg whites) and also dairy products, legumes, nuts and seeds and plant-based proteins. So while currently protein is mostly known for its importance for muscle building among people who are more actively training, it is more so important for our overall functioning.

The third macronutrient group is fats. Given the fact that they provide more calories per gram it is recommended that the bigger part of our meals should consist of proteins and carbohydrates and in smaller amounts of fats. They play a key role in our long-term energy, again in our cell structure, brain and neurological health, hormone production and the protection of organs. The types of fats are saturated, unsaturated and trans fats. Saturated fats can be found in meats and poultry (more fatty meat and chicken with skin), dairy products (like butter or ghee) and some plant oils like coconut. Unsaturated fats are divided into mono - and polyunsaturated fats (Omega 3's and 6) and can be found in foods like oils (olive oil, sunflower oil, avocado oil), nuts and seeds (almonds, flax, cashew, chia, walnuts, etc.), fruits like avocado and olives and in some seafood like salmon, sardines, tuna, etc. Trans fats are considered more dangerous to our overall health as they could raise our LDL cholesterol and interfere with the body's natural processes. They can be found in a lot of processed foods, packaged or pre-prepared foods so it can be important to try to limit their consumption.

Given the fact that there are many different diets and approaches to foods in our modern times, a general sign of a healthy organism would be the ability to consume a variety of foods without having any type of discomfort, pain or inability to process and digest the given food. That being said, a good goal for a person to have is to take optimal care of their microbiome which is the community of microorganisms in our body and especially our gut that take care of the digestion of foods, the distribution of energy and accessing all health benefits food can offer. We can aid our microbiome by having a varied diet that includes different kinds of all macronutrient groups so in that way we can feed "the good bacteria" in our gut to optimize our health.



PSYCHOLOGICAL LAYERS IN NUTRITION

Having these basic outlines on food in general, when it comes to managing diabetes (but this applies generally as well) balance is key. Many new researches show that people with diabetes could also have a varied diet without very strict restrictions as long as some important aspects are taken into consideration which will be described more in depth in the following point.

Besides the practical steps towards balancing meals, the right psychological mindset towards food is of big importance.
A few steps that this toolkit presents are some of the main principles that the approach of Intuitive Eating has to offer. This is a different way to look at the diabetes diet than the typical medical approaches (which are also valid).
The philosophy behind Intuitive Eating guides us towards bettering our body awareness and understanding its signals within the medical guidelines required. Some of the fundamentals are listening to the cues of hunger and fullness, questioning rigid food rules and fine-tuning our choices, letting go of feeling guilty towards certain foods and honoring both physical health and mental well-being.

On the one hand there are the main nutritional guidelines for someone with diabetes - awareness of carbohydrate intake, monitoring blood sugar levels, possibly using insulin or medication, keeping some consistency or planning with meals. Alongside them, a more gentle psychological approach towards nutrition could also look like:

1. BEING AWARE OF BODY SIGNALS

With diabetes a person just receives more data from their body - hunger and fullness but also energy levels and blood glucose readings.
So when a person recognizes their body giving them a sign they are hungry, the fine-tuning requires also checking in with our blood sugar and choosing our meal accordingly to the given level and the level of hunger.

2. CHALLENGING THE "FOOD POLICE" - THERE ARE NO FORBIDDEN FOODS, BUT HOW WE EAT THEM MATTERS

For many people the "black and white" thinking such as "these foods are good and these are bad" causes a lot of pressure on themselves which often results in binging on the "bad" foods and feeling guilt or shame afterwards.
Intuitive eating for someone with diabetes who doesn't want to have a rigid way of categorizing foods may shift their thinking to:
"How does this food affect me?" and "What helps me feel stable later?".
So many feared foods such as sweets or foods high in carbs can actually be a part of the diet of a diabetic person, when it is combined with a protein or fat source to stabilize the blood glucose spike.
A useful outlook on nutrition could include a mentality like: "It's not that I am now allowed this food, is there a way that I can enjoy it in a way that truly makes me feel good?"

3. STRUCTURE HELPS WITH SELF-AWARENESS

An important take in this approach is that intuitive eating doesn't mean chaotic eating - it steps on honoring our authentic physiology needs. But when it comes to diabetes having more structure and prior planning can be of help when we do recognize our body's signals or to prevent a shift in our glucose levels.

So regular meal timing and planning balanced plates (or keeping in mind options for a balanced snack or meal) can support stable hunger cues which would make our intuition more reliable.

4. A GENTLE APPROACH TO NUTRITION REPLACES RIGID VIEWS ON FOOD AND DIET

There are certain conditions of diabetes that would require a more strict approach to nutrition (if these are the medical prescriptions) or sometimes the person just prefers to follow a more specific diet.

Intuitive Eating respects that but also offers another perspective for those people who want to enjoy a bigger variety of foods. So in this case a psychological shift could include self-reflective questions like:

"What keeps my blood sugar levels steady and also satisfies me?"

"How can I enjoy this food/meal in a way that will allow me to feel good?"

An important note here is that relying on intuition alone may not be optimal for situations of high risk such as hypoglycemia. So again, we hold on to the position that this psychological mindset goes hand in hand with the medical guidelines and requirements - it just helps people to feel safer and calmer around food, build a better relationship with their bodies and honor their feelings and needs.

MEDITERRANEAN DIETARY TRADITIONS IN SPAIN, CYPRUS AND BULGARIA

The countries participating in this Erasmus+ project share important dietary traditions that are consistent with many principles of the Mediterranean dietary pattern. Although food cultures differ between Spain, Cyprus and Bulgaria, all three countries traditionally promote the consumption of fresh vegetables, fruits, legumes, cereals, olive oil, dairy products and locally produced foods.

These dietary patterns are generally consistent with current recommendations for healthy eating in children and adolescents, including those living with Type 1 Diabetes. A balanced diet rich in minimally processed foods can support healthy growth and development, contribute to cardiovascular health, and facilitate glucose management when combined with appropriate insulin therapy and diabetes education.

While nutritional management of Type 1 Diabetes does not require a special "diabetes diet", healthy eating habits remain a cornerstone of diabetes care. International diabetes guidelines and Spanish scientific societies, including the Spanish Diabetes Society (SED), recommend dietary patterns based on Mediterranean diet principles due to their beneficial effects on overall health, cardiovascular risk factors and long-term disease management. The Mediterranean dietary pattern, widely recognised as one of the healthiest eating models worldwide, therefore provides a practical framework for promoting balanced nutrition within school, family and community environments.



ROLE OF TEACHERS AND SCHOOL STAFF

Teachers are not responsible for making medical decisions, prescribing diets or calculating insulin doses. However, they play a key role in ensuring that students can manage their diabetes safely and participate fully in school life.

School staff should:

- Be familiar with the student's individual diabetes care plan.
- Understand the importance of regular meals and snacks.
- Recognise the signs and symptoms of hypoglycaemia and hyperglycaemia.
- Allow students to respond immediately to diabetes-related needs.
- Support the use of diabetes devices such as glucose monitors and insulin pumps.
- Promote an inclusive environment free from stigma or discrimination.
- Maintain communication with families regarding food-related activities and special events.

Particular attention should be paid to preventing situations in which children feel embarrassed about eating, checking glucose levels or using diabetes technology in front of their peers. A supportive school environment can contribute significantly to both diabetes management and emotional wellbeing.



MODULE 4: DIABETES IN SPORT



PHYSICAL ACTIVITY BENEFITS

Maintaining a healthy lifestyle including sport activities and daily exercise is crucial for managing diabetes. The movement of the body is very important for the regulation of insulin as well as keeping our whole body healthy such as our heart, lungs, muscle mass and joint and bone health. Feeling good being active while managing blood sugar requires certain key points to keep in mind - prior to being active, while being active and post-exercise. Proper nutrition and sport go hand in hand when managing symptoms of diabetes.

SPORTS TRAINING SESSIONS WITH DIABETES

Education on the specific use of insulin when performing sports activities for someone with diabetes is important when it comes to optimizing their overall health and ability to perform.

How the body normally uses the hormone insulin when training is that it allows glucose to enter the cells - especially the muscle cells and to also store glucose in the liver (glycogen) for longer periods of activity. So when being active, the muscles need glucose from the blood more rapidly and sometimes pull from the preserved glycogen in the liver. During and after exercise the body becomes more sensitive to insulin.

Usually light to moderate activity tends to lower glucose levels where higher intensity activities can raise them temporarily.
For people with Diabetes Type 1 this is important because it has a risk of hypoglycemia during or after exercise which requires being aware of the body's signals and to be prepared with a proper snack to regulate the levels of glucose.

For people with Diabetes Type 2 exercise improves insulin sensitivity but taking certain medication may still hide a risk of hypoglycemia.

An important note here is that having diabetes does not mean a person can't perform certain types of sports activities - it means that it needs a few further considerations to optimize their capacity for optimal performance.

There is still a certain stigma around practicing sports with the condition of diabetes. It can sound like "You shouldn't push yourself too hard", "You will probably have a health emergency if you exercise", "Sports are dangerous for you". They most often come from a place of care given the most common relation of diabetes and its blood sugar fluctuations yet further education on the matter can widen this perspective.

There could be many examples of elite athletes who have been diagnosed with either Diabetes type 1 or type 2 who have performed peak performances such as olympic medals or participating in prestigious competitions within their sports.

All of these examples show that dedicated daily sport activities are not only possible, but could be a part of a professional path. In this sense, on non-professional level sports can also be a great beneficial part of people's lives and especially those who are diagnosed with Diabetes type 2 where staying active is one of the major recommendations a health provider would give.



EDUCATION ON DIABETES WITHIN A SPORTS CLUB: GUIDELINES FOR COACHES AND SPORTS STAFF

In the previous chapters of the toolkit the overall description of the condition of Diabetes should be a starting point for anyone working within the sports club.

More specifically, there's a few practical guidelines to keep in mind given the different types of intensity of sport activities as well as important psychological key notes to keep the climate within the club or team positive and supportive.

Low-moderate intensity such as jogging, steady drills, and simple activities for young children (kindergarten age or primary school) tends to lower blood glucose gradually.

The **risk** kept in mind should be of hypoglycemia during or after training. **Tips** for coaches could be encouraging having a snack before training or during a longer session.

Also watching for delayed lows in the hours later (if the coach is monitoring the child on a camp for example) or forewarning the child to check it often enough later.

The **signs** to look for a drop in blood glucose: pale skin, shaking or sweating, confusion or poor coordination, sudden fatigue, irritability or emotional outbursts.

In case of some of these symptoms the activity should be stopped immediately and offer fast sugar such as juice, candy, glucose tablets, etc.

If the child can't continue with the activity it is important to never send them off training alone given the risk of another hypoglycemia which may lead to fainting.

High-intensity training such as sprinting, playing a match or a game or participating in a competition tends to raise blood glucose short-term given the rising of the stress hormones. This may lead to a quick drop later.

Tips for coaches here are to still periodically check on the child even if their energy seems high and to monitor after activity for a possible drop.
Signs to keep in mind for hyperglycemia or high blood glucose are frequent urination, excessive thirst, tiredness or blurred focus.

In these cases allow rest and hydration and follow the child's medical plan if they may need insulin. If you are not trained to help the child with the insulin, seek help from a medical provider if one is available at your club or immediately contact parents.

Before the training session the coach should be aware of the kids with diabetes, know their individual plan and have in mind where their supplies are such as monitor, insulin, snacks. It's important to check up with the child if they have checked their blood glucose before they start training and if they have snacks available. Preparation is always crucial in cases of an emergency.
During the training session the coach must pay attention to changes in the child's behaviour. If the child is older and there is a good relationship between them both, they could create their own way of communication during the session for a quick indication if everything is alright. It is also important to give regular breaks and keep snacks nearby.
After the training session the coach could encourage the child to check up their blood glucose levels and have a snack if needed.



PROMOTING AN INCLUSIVE AND SUPPORTING ENVIRONMENT

Besides the relationship between the child and the coach it is really important to have an understanding and supportive climate between all children.

If there is a kid with diabetes on the team or in the club, the coach must present the situation to the others in an age-appropriate way in order to normalize it.

For a group of younger kids the coach could explain the condition in a simple way such as "His/her body uses energy in a special way which they check here on this monitor. It tells them if they need to have a break or have a bite to eat. In case they do need that, they can leave the session for as long as needed." For older kids such a simple explanation could still be enough but could also be expanded for further understanding. In this way the coach will set certain rules that everyone should respect - such as leaving a session to take a break.

An important note to mention to the kids is that this condition is not something they can catch, it is not contagious. Such stigma could be present between kids which could lead to discriminating against the child, leaving him out of conversation or activities. So educating the kids on the matter - that Diabetes is a specific way their body works and not an illness like a cold - is key to lay the foundation of an understanding and accepting environment.

Given all that, it is also important for the coach to not treat the child in an overly-caring way which could actually have an opposite effect on the rest of the kids for them to assume that something is not quite right. Being aware, understanding and alert will be enough to support the child and react if needed.

Another important note for coaches here is that when taking care of an understanding and supportive climate within the team, **body-image and nutrition choice comments should be limited**. Sometimes diabetes may slow the child's metabolism overall which could have them stay at a higher weight or that might be how they are currently built. Any type of comments on their weight or body-image should be limited even if they are supposedly said to support the child as such comments often reflect negatively on the child's self-image, confidence, trust or even will to follow the medical instructions. Commenting on what and when they eat should also be a subject discussed within the team for further understanding and non-judgement as kids may begin to feel uncomfortable eating in front of the rest of the group even though it is vital for them in this particular moment. This note should be presented to all kids (given that respect between kids is valid for all children, not just those with diabetes) as a rule within the team as well as a key point for the coach to keep for themselves and their own behavior.

WHAT SHOULD A TEACHER, COACH OR ACTIVITY LEADER KNOW BEFORE WORKING WITH A STUDENT WITH TYPE 1 DIABETES?

Children and adolescents with Type 1 Diabetes (T1D) can safely participate in physical education classes, sports training, competitions, excursions, outdoor activities and recreational programmes. In most situations, diabetes should not limit participation. However, teachers, coaches and activity leaders should have some basic knowledge in order to provide a safe, inclusive and supportive environment.

Before supervising a student with diabetes, it is important to know:

- Whether the student uses insulin injections, an insulin pump, or a hybrid closed-loop system.
- Whether the student uses a Continuous Glucose Monitoring (CGM) device.
- How the student usually recognises symptoms of hypoglycaemia and hyperglycaemia.
- Where diabetes supplies and emergency materials are kept.
- Whether fast-acting carbohydrates are available during activities.
- Who should be contacted in an emergency.
- Whether an Individual Diabetes Management Plan is available.
- If any specific precautions are required for competitions, excursions, sports camps or prolonged exercise.

Students should be encouraged to communicate openly if they feel unwell before, during or after physical activity. Creating an atmosphere where students feel comfortable reporting symptoms is one of the most important protective measures.
The objective is not to restrict participation, but to ensure that students can participate safely, independently and confidently alongside their peers.



QUICK RECOGNITION GUIDE FOR TEACHERS AND COACHES

Although teachers and coaches are not healthcare professionals, recognising early warning signs can help prevent serious situations and improve student safety.

POSSIBLE SIGNS OF HYPOGLYCAEMIA (LOW BLOOD GLUCOSE)

Hypoglycaemia may develop rapidly and requires immediate attention.

WHAT TO DO:

- Stop the activity immediately.
- Do not leave the student alone.
- Provide fast-acting carbohydrates according to the student's care plan.
- Monitor the student's condition.
- Allow participation to resume only when the student has recovered fully.

COMMON SIGNS INCLUDE:

- Shaking or trembling
- Sweating
- Pale skin
- Sudden hunger
- Irritability
- Mood changes
- Difficulty concentrating
- Dizziness
- Poor coordination
- Unusual behaviour
- Confusion
- Sudden fatigue

1. RECOGNISE THE SIGNS

Watch for any of these signs of hypoglycaemia (low (ww blood glucose).



Shaking or trembling



Sweating



Pale skin



Sudden hunger



Irritability or mood changes



Difficity concentrating



Dizziness



Poor coordination



Unusual behaviour



Confusion



Sudden fatigue

2. WHAT TO DO

Follow these steps if you suspect hypoglycaemia.

1



Stop the activity immediately.

2



Do not leave the student alone.

3



Provide fast-acting carbohydrates according to the student's care plan.

4



Monitor the student's condition.

5



Allow participation to resume only when the student has recovered fully.

POSSIBLE SIGNS OF HYPERGLYCAEMIA (HIGH BLOOD GLUCOSE)

Hyperglycaemia usually develops more gradually but should still be addressed promptly.

COMMON SIGNS INCLUDE:

- Excessive thirst
- Frequent urination
- Dry mouth
- Fatigue
- Reduced concentration
- Blurred vision
- Headache
- Nausea

WHAT TO DO:

- Allow the student to rest.
- Encourage hydration.
- Follow the student's individual diabetes care plan.
- Contact parents or healthcare support when indicated.

EMERGENCY SITUATIONS

Immediate emergency assistance may be required if a student:

- Loses consciousness.
- Has a seizure.
- Is unable to swallow.
- Becomes severely confused or disoriented.
- Does not respond to treatment according to the care plan.

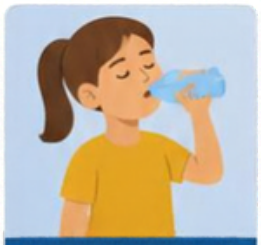
IN THESE SITUATIONS:

1. Call emergency services immediately.
2. Follow the student's emergency care plan.
3. Administer glucagon if trained and authorised to do so.
4. Contact parents or guardians.
5. Remain with the student until help arrives.

KEY MESSAGE FOR TEACHERS AND COACHES

Students with diabetes do not need special treatment; they need informed support. Basic awareness, open communication, appropriate preparation and a positive attitude towards inclusion allow children and adolescents with diabetes to enjoy the same sporting opportunities as their peers while remaining safe and confident.

1 COMMON SIGNS OF HYPERGLYCAEMIA


Excessive thirst


Frequent urination


Dry mouth


Fatigue


Reduced concentration


Blurred vision


Headache


Nausea

2 WHAT TO DO

1


Allow the student to rest.

2


Onururing hydration.

3



Follow the student's individual diabetes care plan.

4


Contact parents or healthcare support when indicated.

3 EMERGENCY SITUATIONS

URGENT WARNING SIGNS

- Loss of consciousness
- Seizure
- Inability to swallow
- Severe confusion or disorientation
- No response to treatment according to the care plan

RESPONSE SEQUENCE

1. 999 — Call emergency services immediately.
2. Follow the student's emergency care plan.
3. Administer glucagon only if trained and authorized.
4. Contact parents or guardians.
5. Remain with the student until help arrives.

MODULE 5: DIABETES IN SCHOOL



SUPPORTING STUDENTS WITH DIABETES DURING EXAMS

Supporting Students with Type 1 Diabetes at School

Creating a school environment where students with type 1 diabetes feel safe, included, and understood is essential for their well being and learning. Beyond knowing the basics of diabetes, schools play a key role in offering stability and ensuring that no student feels limited or singled out because of their condition. With simple measures clear communication, small accommodations, and a supportive attitude schools can help students participate fully in classroom life and develop confidence in managing their diabetes while learning and growing alongside their peers.

What schools should keep in mind

• Know the student's individual plan: understanding their needs helps the school respond calmly and effectively.

•Keep communication open: regular contact with families builds trust and prevents misunderstandings.

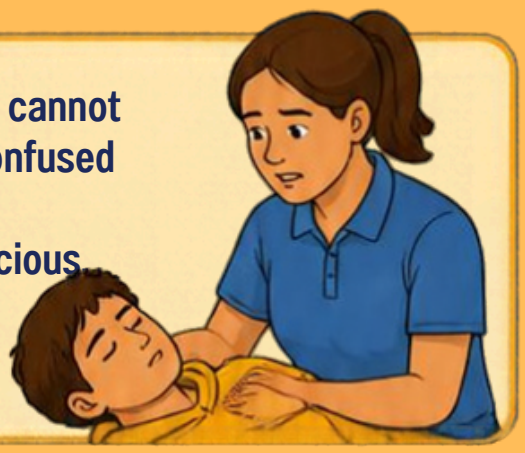
• Allow simple adjustments: letting the student check glucose, use devices, or eat when needed supports their safety.

• Promote inclusion: treating diabetes naturally, without dramatizing or minimising it, helps students feel accepted and confident.

• Create a supportive climate: small gestures from teachers and classmates can make the school day much easier.

A severe episode may mean the student cannot eat or drink, cannot swallow safely, is confused or very disoriented, does not respond normally, or is unconscious.

Act quickly and safely.



HOW TO ACT IN CASE OF SEVERE HYPOGLYCEMIA

Although most low blood sugar episodes are mild and quickly resolved, schools must be prepared to respond to a severe hypoglycemia a situation in which the student may be unable to eat or drink, may not respond normally, or may even lose consciousness. Actuar rápido y con seguridad es fundamental.

Steps for school staff

- Stay calm and assess the situation: if the student cannot swallow safely, is confused, very disoriented, or unconscious, it is considered a severe episode.
- Do NOT give food or drink: this could cause choking.
- Administer emergency glucagon (nasal or injectable), only if it is available and the staff has been trained.
- Call emergency services immediately.
- Stay with the student until help arrives: place them on their side (recovery position) to maintain an open airway if they are unconscious.
- Inform the family as soon as possible once the situation is under control.

Why preparation matters

Ensuring that school personnel know where the student's emergency kit is stored, who is trained to use glucagon, and what steps to follow can make a life saving difference. Clear protocols reduce fear, prevent delays, and help everyone respond with confidence.

DIABETES, LEARNING AND ACADEMIC PERFORMANCE

Blood glucose levels can directly affect a student's concentration, attention, memory and overall academic performance. Both hypoglycaemia (low blood glucose) and hyperglycaemia (high blood glucose) may temporarily interfere with learning and classroom participation.

HYPOGLYCAEMIA MAY CAUSE:

- Difficulty concentrating.
- Confusion.
- Slower thinking and information processing.
- Irritability or unusual behaviour.
- Fatigue and decreased academic performance.

HYPERGLYCAEMIA MAY CAUSE:

- Headaches.
- Tiredness.
- Difficulty concentrating.
- Restlessness or irritability.
- Reduced participation in classroom activities.

Teachers should understand that temporary changes in behaviour, attention or academic performance may sometimes be related to blood glucose fluctuations rather than motivation, effort or discipline. Allowing students to manage their diabetes promptly can help restore normal cognitive functioning and support learning outcomes.

1 BLOOD GLUCOSE CAN AFFECT LEARNING



Concentration · Attention · Memory · Behaviour · Participation

2 POSSIBLE SIGNS

A HYPOGLYCAEMIA MAY CAUSE:

- Headaches.
- Tiredness.
- Difficulty concentrating.
- Restlessness or irritability.
- Reduced participation in classroom activities.

B HYPERGLYCAEMIA MAY CAUSE:

- Difficulty concentrating.
- Confusion.
- Slower thinking and information processing.
- Irritability or unusual behaviour.
- Fatigue.
- Decreased academic performance.

3 HOW TEACHERS CAN SUPPORT LEARNING

1. Notice changes without blame.
2. Allow the student to manage their diabetes promptly according to their individual care plan.
3. Understand that temporary changes may relate to blood glucose fluctuations rather than motivation, effort, or discipline.



DIABETES TECHNOLOGY IN THE CLASSROOM

Modern diabetes management increasingly relies on technology. Many students with Type 1 Diabetes use Continuous Glucose Monitoring (CGM) systems, insulin pumps or hybrid closed-loop systems to monitor and manage their condition throughout the school day.

Some CGM systems communicate with smartphones, smartwatches or dedicated receivers. For this reason, students may occasionally need to check a device during lessons.

It is important that teachers understand that these devices are medical tools rather than recreational technology. Access to glucose data enables students to:

- Monitor glucose trends.
- Respond to alarms indicating low or high glucose levels.
- Prevent diabetes-related emergencies.
- Make informed decisions about food intake or physical activity.

When appropriate school policies are in place, the use of diabetes technology can improve safety, independence and participation in classroom activities.

REASONABLE ACCOMMODATIONS DURING EXAMINATIONS AND ASSESSMENTS

Students with diabetes should be able to complete examinations and assessments under conditions that allow them to manage their health safely.

Blood glucose fluctuations may affect concentration, memory, reaction time and academic performance. Therefore, reasonable accommodations may sometimes be necessary during examinations.

Examples of appropriate accommodations include:

- Access to glucose monitoring devices during examinations.
- Access to insulin, snacks, water and emergency glucose treatment.
- Permission to leave the examination room briefly if medically necessary.
- Additional time when a significant hypo- or hyperglycaemic event occurs during an assessment.
- Flexible arrangements for students recovering from diabetes-related emergencies.

These accommodations are not intended to provide an academic advantage but to ensure that students are assessed fairly while managing a chronic health condition.

Open communication between families, students and school staff is essential to ensure that appropriate arrangements are established before examinations take place.

MODULE 6: PSYCHO-SOCIAL MANAGEMENT



EMOTIONAL MANAGEMENT

While children diagnosed with diabetes and their families are provided with some guidelines on how to manage the condition including normalizing their condition, explaining any uncertainties to prevent confusion and supporting a healthy atmosphere at home, it is very important that educators and coaches are also prepared with knowledge about the condition and how to talk to children. Most diagnosed children and adolescents are very aware of their bodies and different symptoms and do not feel anxious about them, but still there are also many who don't want to talk about it, feel insecure or simply ""different"". Educators and coaches should be open to talking to the kids if they recognize a problem, keep the specifics of their condition in mind and manage the positive climate within the micro-group (class at school or sports).

Psycho-social management includes multiple aspects such as self-awareness, self-regulation, adaptability, empathy and organizational awareness, conflict management, team-building, etc.

Psycho-social risks on the matter of diabetes can include both an individual and environmental perspective such as:

- Anxiety in individuals with diabetes about administering insulin, using pumps or monitors or other specific care
- Fear in individuals with diabetes of hypoglycemia and not being in an environment where proper actions would be taken
- Shame in individuals with diabetes to talk about their condition
- Resistance on taking proper care due to shame or lack of prior planning
- In a social sense: stigmatization or discrimination between kids due to lack of education on the matter
- Poor micro-climate within the class or sports club where support and understanding between children are not encouraged principles
- Lack of proper education of coaches or teachers on how to support a child with diabetes

Optimizing the dialogue between the child, the parents and the teachers/coaches and equipping them with certain tools on psycho-social management could improve the overall acceptance and normalization of diabetes in general.

INCREASING SELF-AWARENESS

In a psychological sense self-awareness represents the ability for a person to recognize and understand their thoughts, emotions and actions and how they reflect to others and themselves. In the sense of diabetes this also includes an in depth understanding of their body, how it feels in different states of their conditions and what they need for that moment.
Self-awareness requires the ability to self-reflect - to be able to observe the different states of one's self and to choose correct behaviour.

Useful questions for increasing self-awareness could include:

- How is my body feeling right now? Is it energized, tired, hungry, etc.?
- What do I need at this moment? Is it a biological need such as hunger or rest or an emotional need such as support from a friend, some time alone or engaging in a positive activity?
- What kind of thoughts do I recognize lately? Are they limiting me or are they helping me search for good solutions?

SELF-REGULATION

Self-regulation represents the ability to recognize one's emotions and choose correct behaviours in a healthy way both for the person themselves and those around them.
Useful question to help a person regulate their emotional states are:

- What am I feeling at this moment? Is it a more low-intensity emotion and a high-intensity? (i.e. frustration could feel bearable where intense anger could make us impulsive and reactive)
- How does my body feel with this emotion? (i.e. anger increases our heartbeat and fastens our breathing, anxiety feels like heaviness in the chest or stomach discomfort, happiness can feel like liveliness and high energy, etc.)
- What does this emotion tell me that I need at this moment? (i.e. sadness suggests that we seek for comfort or stay with ourselves for a bit, anger suggests us that we need to speak up or leave the situation before escalation, anxiety suggests that we need to observe the situation in a more objective manner and search for rational solutions rather than spiraling into different emotional scenarios, etc.)
- How can I manage this emotion in a healthy way both for me and those around me?
- What provoked this emotion? Is it the situation itself or a certain thought that I had?

SOCIAL AWARENESS AND EMPATHY

Social awareness represents the ability to understand other's emotions, perspectives and social dynamics in different situations and how we as individuals can operate in this social system.

In the case of working with a class or a sports team it is an important first step to have a set of social rules that all kids can follow. When there are shared principles it is easier for kids to follow the way of the system.

That set of rules could be presented as "the team/class' code" and children could be involved in the process of choosing the given set. This could give them a sense of personal responsibility and autonomy which is an important psychological point for young kids and adolescents.

The "social awareness code" can include subjects like:

- Accepting differences of all sorts
- Respecting our classmates/teammates
- Building the capacity to hold onto one's opinion while still validating other's perspectives.

DIABETES DISTRESS AND DIABETES BURNOUT

Living with Type 1 Diabetes requires continuous decision-making every day. Monitoring glucose levels, administering insulin, planning meals, managing physical activity and responding to alarms can become emotionally exhausting over time.

Some children and adolescents may experience diabetes distress or diabetes burnout, characterised by:

- Frustration with constant diabetes management.
- Feeling overwhelmed by diabetes-related responsibilities.
- Reduced motivation to monitor glucose levels.
- Avoiding diabetes-related tasks.
- Emotional fatigue.

Teachers, coaches and families should understand that periods of frustration are common and do not necessarily indicate non-compliance or lack of responsibility.

A supportive and non-judgemental approach can help students maintain both emotional wellbeing and diabetes self-management.

LANGUAGE MATTERS: WHAT ADULTS SHOULD AVOID SAYING

SUPPORTIVE COMMUNICATION

Certain comments may unintentionally increase feelings of stigma, shame or frustration.

Adults should try to avoid statements such as:

- "You can't eat that."
- "Should you really be eating that?"
- "Your diabetes is badly controlled."
- "That's because of your diabetes."
- "You are different from the other children."

Instead, supportive language may include:

- "How can I help?"
- "Do you need a moment to check your glucose?"
- "Would you like some privacy?"
- "Let me know if you need support."

This approach promotes autonomy, confidence and self-esteem.

ADOLESCENCE AND DIABETES

ADOLESCENCE AND DEVELOPING INDEPENDENCE

Adolescence is a period of increasing independence, identity formation and social belonging.
Young people with diabetes may sometimes:

- Feel uncomfortable standing out from peers.
- Skip glucose checks in social situations.
- Feel embarrassed about insulin administration.
- Experience conflict between independence and parental supervision.
- Be more vulnerable to diabetes burnout.

Adults should encourage gradual autonomy while maintaining appropriate support.

PEER SUPPORT AND FRIENDSHIP

THE IMPORTANCE OF PEER SUPPORT

Friends often play an important role in the daily lives of students with diabetes.
A supportive peer group can:

- Reduce feelings of isolation.
- Increase confidence.
- Encourage participation in activities.
- Provide reassurance during stressful situations.

Simple awareness among classmates can contribute significantly to both emotional wellbeing and safety.

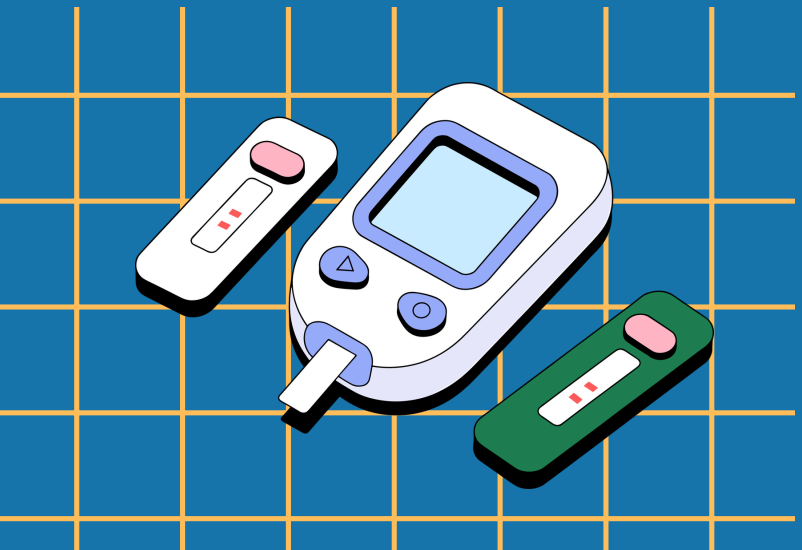


A PRACTICAL CHECKLIST FOR TEACHERS

CREATING A PSYCHOLOGICALLY SAFE ENVIRONMENT

Teachers can support students with diabetes by:

- □ Allowing diabetes management without drawing unnecessary attention.
- □ Promoting respectful language.
- □ Preventing teasing or bullying.
- □ Encouraging participation in all school activities.
- □ Supporting student autonomy.
- □ Recognising emotional as well as medical needs.
- □ Maintaining communication with families.
- □ Responding calmly during diabetes-related situations.



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TREATMENT

INTERNATIONAL SOURCES

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PARTNERSHIP

ALIBIS

Coordinator

Alibis Training & Education is an organization based in Sofia, Bulgaria that is dedicated to supporting mental and physical well-being through an integrative approach to mental health, nutrition, and personal development. With expertise in food counseling and nutrition, the organization helps individuals build a healthier relationship with food and their bodies, including work with eating disorders through an intuitive eating approach.

VIMODO

partner

A research and education organization dedicated to fostering innovation, advancing knowledge, and driving social change. Through a cross-sectoral approach, we collaborate with diverse stakeholders to develop forward-thinking solutions and contribute to sustainable development.

ANADI

partner

The Asociación Navarra de Diabetes (ANADI), based in Pamplona, Spain, is a non-profit non-governmental organization established in 1983 with a mission to improve the quality of life for individuals with diabetes and their families. With 42 years of experience in the field, ANADI provides a multidisciplinary approach to diabetes management, offering services such as psychological support, individualized care programs, and health education workshops.

THANK YOU