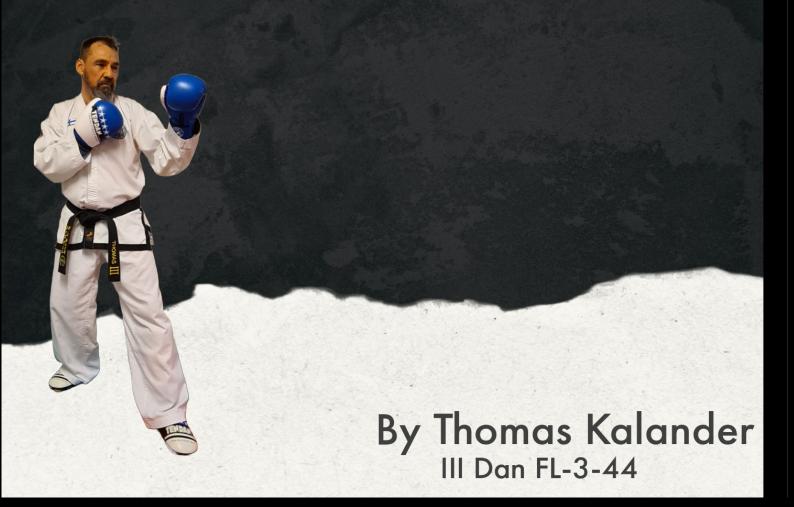
Practice ITF Taekwon-Do with Diabetes

A reflecton and analysis of what it is like to live with diabetes and combine it with practicing ITF Taekwon-Do

15 May 2024



Contents

Who am I?	2
Note!	4
Briefly about me and my diabetes	4
What is diabetes?	5
There are two main types of diabetes mellitus: type 1 and type 2	5
Type 1 diabetes mellitus	5
Type 2 diabetes mellitus	5
I have Type 1 diabetes	5
Hyperglycemia	6
Symptoms of high blood sugar	6
Hypoglycemia	7
Symptoms of low blood sugar	7
Long term complications	9
Limited joint mobility	9
The challenges of having diabetes within ITF Taekwon-Do and its disciplines	9
Stress (both emotional and physical)	10
High blood sugar level despite no food, what causes it?	10
My experiences and observations on how sugar levels affect performance	10
Competition situations	11
Larger seminars and camps	11
Multiple roles during the same event and day	11
Normal ITF Taekwon-Do training and supplementary training	11
My methods	11
Relaxator	13
Competition situation	13
Seminars and camps	13
Multiple roles during the same event and day	14
The benefit is mutual when it comes to diabetes vs. ITF Taekwon-Do	15
ITF Taekwon-Do supports my diabetes	15
My diabetes also supports me practice ITF Taekwon-Do	15
Conclusion	15
References	17

Who am I?

My name is Thomas Kalander and I'm turning 54 years soon. I live in southwestern Finland in a town called Raseborg. I took the beginner's course in ITF Taekwon-do in the spring of 2012 in EKS TKD RY school, led by Master Jean Feller. My instructor was Bosabumnim Juha Miettinen, today Sabumnim Juha Miettinen. Master Jean Feller 8dan has been my head teacher from the beginning. I have also been training regularly since the beginner's course. Master Jean Feller has graduated me for all my black belts, 1 Dan 28.5.2016, 2 Dan 3.3.2018 and 3 Dan 15.1.2022.

I grew up in a sporting family. My father was a competitive skier and did well at a national level and as an oldboy (40y) won a world championship bronze. My two younger sisters specialized in track and field and for myself competitive cross-country skiing became the most important discipline. Our everyday life always included training and we always had clear goals.

In 1990 I moved away from home and started studying in Helsinki. Since it was difficult to maintain a sufficiently high training intensity in skiing as a student in the capital region without a car, I changed sports. When I was looking for another sport to put effort on, the requirement was that it should be heavy and that it should feel like you've trained when you come home from training. Then I started training boxing in Helsinki in club called Viipurin Nyrkkeilijät. I practiced boxing for approx. 10 years. After my studies, I looked for a job in a town in Västnyland called Ekenäs. There was no boxing club there, so I ended up commuting approx. 55 km a road to a boxing club in Lojo. After some time, I started doing cardio boxing at a gym in Ekenäs. The cardio boxing aroused great interest among the residents of Ekenäs and I met like-minded people from different backgrounds there. Some of us then founded a club called Bulls Ekenäs rf. which is still active. Bulls Ekenäs is a kickboxing club. In kickboxing, I started mixing kicks into the combinations, even though hand techniques were my area at the beginning.

My wife and her son started training ITF Taekwon-Do in Ekenäs. A few years later in 2012, my daughter and I also started the basic course in ITF Taekwon-Do in Ekenäs.

After I took the beginner's course, my interest in ITF Taekwon-Do has continuously increased. Its many different sub-areas make the martial arts very versatile, which makes the discipline very interesting, challenging and motivating. My favorite discipline has always been sparring. The challenges have been tough, but the interest and persistence have pushed me forward with the help of our talented instructors, Sabumnim Juha Miettinen and Sahyun Jean Feller.

I thought the oath and tenets of ITF Taekwon-Do (COURTESY (Ye Ui), INTEGRITY (Yom Chi), PERSEVERANCE (In Nae), SELF-CONTROL (Guk Gi) and INDOMITABLE SPRIT (Baekjul Boolgool)), was a very important and good thing right from the start. These are things that should be the basis for everything in the world, a basic value for all people. It leads to a sane and peaceful coexistence among people.

I train regularly and intensively towards clear goals within ITF Taekwon-Do. I also work as an instructor within the kickboxing club Bulls Ekenäs rf in Ekenäs. There I regularly lead exercises but considerably less than in ITF Taekwon-Do which has been my main discipline for many years.

As an assistant instructor within ITF Taekwon-Do, I have grown as a person. The challenges are many and the people are different, but the feeling when you see the development of the students is enormously nice. I have also learned to know my own body much better, what it needs via my own limitations.

I am so looking forward to applying for the 4th degree black belt and hopefully pass the belt test on the day of the test. I feel ready and look forward to taking on more responsibility within ITF Taekwon-Do.

I have participated in several seminars such as, GRM Kim Ung Chol in 2012/2015/2019, Viktoria & Anna Moiseyenko 2013/ 2014, Konstantin Yurikov in 2015, Master Semenko in 2016, Master Hwang Su IL Mr.Tekken in 2017 and Master Jean Feller seminars 2012-2024.

Over the years, I have also competed actively and, as I said, sparring is my discipline. I have been a member of the Finnish national team for several years. Attended national and international championships during my career. I have won the Finnish championship several times. I have participated in the European Championships in, Estonia-Tallinn 2018, Italy- Rimini 2019, Croatia-Porec 2022 and Italy-Jesolo 2023. I got Silver in Gold veterans sparring -80kg in the European Champinonships in Croatia, Porec 2022.

My wife and I founded Tornados ITF Taekwon-Do school in 2019. Since then we have held two beginner courses every year. The club is still quite small but we are working hard to get it to grow. Our members are highly motivated and enthusiastic practitioners of ITF Taekwon-Do and most of them also actively compete.

I am an active and otherwise healthy person except that I have diabetes and asthma. This makes everyday life challenging when it comes to practicing the interesting, versatile and demanding martial art, ITF Taekwon-Do. Therefore, I have chosen to write my thesis about my experiences and solutions based on my diabetes and my practice of ITF Taekwon-Do together.

Note!

I want to start by saying that what I write in this thesis is in no way scientifically proven, but I write based on my own experiences, observations and what I have learned about managing diabetes while practicing ITF Taekwon-Do both physically and psychologically.

Briefly about me and my diabetes

I got type 1 diabetes when I was two years old. Therefore, I cannot say what it is like to live without diabetes, but for me the disease is part of everyday life. I take insulin via insulin pens that I stick 4-6 times a day. I use two different types of insulin, one that is long acting and

another that is fast acting that I take with meals. The long-acting insulin acts actively throughout the day in the bottom (24-48h) and the other is a so-called rapid insulin as is active for 2-4 hours, taken with meals.



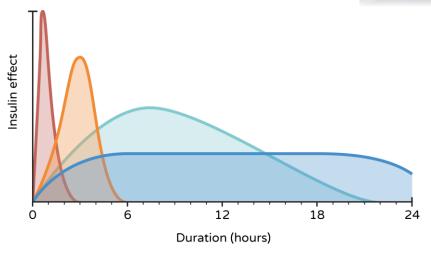


Figure 1, Insulin types in general, Red=Rapid-acting, Orange=Short-acting, Turquoise=Intermediate-acting and Blue=Long-acting

As a diabetic, I have learned a lot about diet and the content of the different diets. Optimally, you should eat slow carbohydrates and maintain a very regular dietary intake. The reality is usually completely different, work, training, etc. are things that vary and make everyday life challenging in terms of sugar balance.

In my childhood, my parents took care that I had a good diabetes balance. My mother always said that there should always be food on the table even if we ended up giving away everything else. When I was a child and teenager, it was even more important to have regular meals because insulin was not as good as today. From there, of course, I have gained the knowledge and understanding of how important it is to ensure that I have balance in life.

What is diabetes?

Diabetes mellitus is the scientific name for diabetes, but it is more commonly known simply as diabetes. It's when your body can't produce enough of a hormone called insulin, or the insulin it produces isn't effective.

There are two main types of diabetes mellitus: type 1 and type 2.

Type 1 diabetes mellitus

Type 1 diabetes mellitus is another name for the condition. Type 1 diabetes is where your blood glucose (sugar) level is too high because your body can't make insulin. You must receive insulin via injections into the body using a syringe or insulin pump.

Type 2 diabetes mellitus

Type 2 diabetes mellitus is another name for the condition. When you have type 2 diabetes the insulin your pancreas makes can't work properly, or your pancreas can't make enough insulin. This means your blood glucose (sugar) levels keep rising. Here is the basis is always to review and change lifestyle habits, often with the addition of some medication.

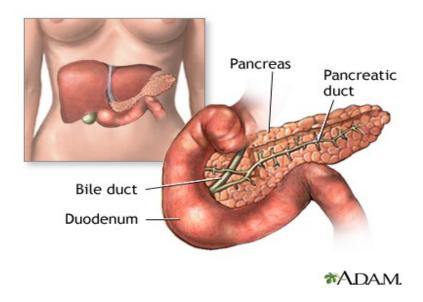
The word diabetes comes from the Greek and means that it is fluid that passes through one. The Latin word Mellitus meaning sweet.

I have Type 1 diabetes

Type 1 diabetes is a lifelong (chronic) disease in which there is a high level of sugar (glucose) in the blood.

Type 1 diabetes can occur at any age. It is most often diagnosed in children, adolescents, or young adults.

Insulin is a hormone produced in the pancreas by special cells, called beta cells. The pancreas is below and behind the stomach. Insulin is needed to move glucose into cells. Inside the cells, glucose is stored and later used for energy. With type 1 diabetes, beta cells produce little or no insulin.



Without enough insulin, glucose builds up in the bloodstream instead of going into the cells. This buildup of glucose in the blood is called hyperglycemia. The body is unable to use the glucose for energy.

Hyperglycemia

Hyperglycemia is a condition in which the level of glucose in the blood is higher than normal. Sometimes called "high blood sugar," it commonly affects people who have diabetes mellitus, but it can also develop in non-diabetics.

Glucose is the primary source of energy for all cells in our bodies. It comes from the foods we eat, especially carbohydrates. When food reaches the stomach, it is broken down into different parts—one of which is glucose. The intestines absorb the glucose, which then enters the bloodstream and circulates around the body.

Normally, the body uses a hormone called insulin to move glucose from the blood into cells, thereby lowering glucose in the blood and providing cells with energy.

Hyperglycemia can occur when the body does not produce enough insulin or does not respond to insulin correctly. In both cases, glucose stays in the blood instead of being sent to the cells, and as a result, blood glucose levels remain elevated. If more glucose enters the bloodstream—if you eat carbohydrate-rich food, for example—the blood glucose levels climb even higher.

In some cases, people with diabetes who have hyperglycemia can develop a complication called diabetic ketoacidosis (DKA). In this condition, the cells cannot access glucose. Instead, the body gets energy by breaking down fats. This process produces compounds called ketones, which build up in the blood, causing it to become acidic. DKA is a life-threatening condition. (DKA is most commonly associated with type 1 diabetes, but can occur in people with type 2 as well.)

During hard training sessions, the release of stress hormones increases, which in turn causes the liver to release glucose. Regeneration of lactic acid (lactate) can raise blood sugar. If you strain your muscles harder than your heart, lungs and blood circulation can handle, you can burn glucose "anaerobically" (without oxygen).

Symptoms of high blood sugar

The symptoms of high blood sugar vary from person to person. Common symptoms are fatigue, increased need to urinate and dry mouth.

A blood sugar level of 10 mmol/l can cause clear symptoms in one person but not in another. In addition to the current blood sugar value, the symptoms are also influenced by how the blood sugar has looked over a longer period of time, how quickly the blood sugar levels have risen and the reasons for it, especially if it is due to a lack of insulin.

If the blood sugar balance has been high for a long time, for example if for some reason the blood sugar has been continuously at the level of 10–15 mmol/l, the body gets used to it and you show fewer symptoms of high blood sugar.

If the blood sugar level is good or quite low, for example if the blood sugar is mainly between 4 and 7 mmol/l, then the body also gets used to it, and one can easily show symptoms of high blood sugar, already around levels of 7–8 mmol/l l.

A common, general symptom of high blood sugar is fatigue and that you feel "sticky" in the head. If the blood sugar goes over 10 mmol/l, excess sugar is excreted in the urine and you show symptoms in the form of increased urine output. This, in turn, causes the mucous membranes become dry and you become thirsty. The increased urine output can lead to, for example, children or old people urinating on themselves.

Some people find that high blood sugar causes changes in their vision and numbness in the soles of their feet.

In older people, high blood sugar can lead to reduced general condition and functional ability or to confusion.

If the high blood sugar level is due to a lack of insulin, ketones also accumulate in the body. They can cause nausea and vomiting. Long-standing insulin deficiency leads to diabetic ketoacidosis, i.e. acid poisoning.

Hypoglycemia

Hypoglycemia, also known as low blood sugar, is a condition in which the level of glucose in the blood drops below the normal range. It can result from various causes, including excessive insulin, insufficient food intake, or increased physical activity. Symptoms may include dizziness, confusion, sweating, and weakness.

Symptoms of low blood sugar

How the symptoms of low blood sugar look like and at which blood sugar level these symptoms appear is individual. Symptoms of low blood sugar are often called insulin sensations.

Symptoms of hypoglycemia include hunger, sweating, weakness and tremors, blurred vision, absence and pallor.

When blood sugar becomes too low, the body creates a counter-reaction where it tries to bring the blood sugar value back to normal. Many glands in the body are activated and produce hormones that are released into the blood. The hormones can raise the blood sugar value in different ways by releasing blood sugar, mainly from the sugar store in the liver. Insulin's most important antagonist hormones are glucagon, which is secreted from the pancreatic islets of Langerhans, and adrenaline and cortisol, which are secreted from the adrenal glands.

First you start to show symptoms caused by adrenaline, namely insulin sensations. The symptoms from the nervous system usually only appear when the blood sugar level drops even more. When sleeping, a symptom of low blood sugar can be restless sleep, sweating and nightmares. A low blood sugar at night can be noticed in the form of varying blood sugar values in the morning.

Most often, the symptoms of low blood sugar begin when the blood sugar drops below the limit of hypoglycemia, i.e. 4 mmol/l. However, feelings are individual and influenced by many factors. For example, the general balance of blood sugar and how quickly blood sugar drops affect the

symptoms of low blood sugar. If the blood sugar has already been at a high level for a long time, even blood sugar 4–5 mmol/l can cause a feeling of low blood sugar. On the other hand, if the blood sugar balance is generally low, the feelings of low blood sugar may weaken or completely disappear.

The symptoms of low blood sugar can also change over the years. The original adrenaline sensations (ie insulin sensations) decrease and the nerve symptoms that normally appear more slowly can be the first symptom of low blood sugar.

Insulin sensations

Symptoms caused by adrenaline are called insulin sensations. They usually start when the blood sugar level falls below 3.3-3.5 mol/l. The symptoms are corrected within 10–15 minutes if you eat carbohydrates that are quickly absorbed by the body. Common symptoms are:

- Tremors, tremors in the hands
- Nervousness
- Heart palpitations
- Cold sweat
- Pallor
- Strong feelings of hunger
- Feelings of weakness

Symptoms from the nervous system

When the nervous system doesn't get enough sugar, it causes symptoms. It may be due to lack of sugar in the brain or local peripheral nerves. The symptoms usually appear when the blood sugar has dropped to a level of 2.5–2.8 mmol/l. Symptoms from the nervous system are:

- Fatigue, exhaustion
- Difficulty concentrating, difficulty thinking
- Headache
- Symptoms of numbness
- Drowsiness
- Dizziness, fainting
- Unusual or irritated behavior
- Blurred vision, double vision
- Cramps
- Unconsciousness

Long term complications

Diabetes can increase your chance of getting other health problems. The problems will not start immediately, but constant high blood glucose levels can lead to:

- heart disease and stroke
- foot and circulation problems
- sight problems and blindness
- pain and loss of feeling (nerve damage)
- kidney problems
- gum disease

Limited joint mobility

Limited joint mobility, also called diabetic hand syndrome or diabetic cheiroarthropathy, is stiffness of the joints most often affecting the small joints of the hands. The skin on the hands may become waxy and thickened. Eventually finger movement is limited. Other joints can be affected, including the shoulders, feet and ankles. What causes limited joint mobility isn't known. It's most common in people who've had diabetes for a long time.

That's why it's important to keep the blood sugar levels stable, going to diabetes appointments (check ups) and taking diabetes courses is the best way to reduce chance of health problems.

No other disease has such a complex treatment as type 1 diabetes where the treatment is not done by hospital staff, but by the patient himself. If the blood sugar gets too low, it can lead to unconsciousness and convulsions, if it gets too high, it can lead to life-threatening acid poisoning.

The challenges of having diabetes within ITF Taekwon-Do and its disciplines

Since there are a lot of negative things that happen in the body when you have diabetes, it naturally brings worries and challenges. How should one tackle these, when practicing ITF Taekwon-Do in different types of roles such as, competitor, coach, assistant coach, referee and of course maintenance and administration of the TKD school.

When it comes to performing optimally at an elite level, blood sugar is crucial and should be at the right level.

Stress (both emotional and physical)

Stress is by far the most challenging factor in being able to keep the sugar balance in order to be able to perform optimally.

We are most aware of physical stress (such as illness, injury, surgery) and how to deal with it. Emotional stress is more difficult to detect and therefore more difficult to manage. Emotions such as fear, anxiety, anger and tension cause the body to secrete stress hormones into the bloodstream to prepare the body for the so-called 'fight-or-flight reaction'. When the body is under stress, the adrenal medulla produces two hormones – adrenaline and norepinephrine. While the main function of norepinephrine is to prevent blood pressure from falling, adrenaline is an important blood sugar regulating substance1. Raising blood sugar is important in a stressful situation, as the body prepares for physical and mental activity. The secretion of adrenaline helps achieve this and together with the increase in blood pressure, ensures the supply of oxygen and glucose to all parts of the body2. In response to stress, the hormone cortisol is also produced in the adrenal cortex. Cortisol also leads to an increase in glucose levels.

For people who do not have diabetes, the body releases insulin to lower the high blood sugar levels. But for people with diabetes, stress can help raise blood sugar levels over several days and longer periods. This, in turn, can lead to a vicious circle when it becomes more difficult to manage the diabetes due to increased stress.

High blood sugar level despite no food, what causes it?

Blood sugar levels are not only affected by what we eat, but also hormonal factors and the release of the sugar (glucogen) that is stored in the liver also has an effect on how blood sugar levels change throughout the day.

Since diabetes affects joint mobility negatively, it also becomes a significant challenge.

Schedules and new situations make it very challenging to keep your blood sugar balanced. For example, at competitions within ITF Taekwon-Do, the timetables are usually very uncertain and you don't know when you have to get on the mat. Long seminars can be challenging.

It also depends a lot on what kind of personality you have. Some people take life in stride and maybe don't take too much stress from things and another takes a lot of stress over the same things.

My experiences and observations on how sugar levels affect performance.

Succeeding in dosing the right amount of insulin and maintaining an optimal sugar balance is always a challenge, but in the following situations it becomes even more clever:

Competition situations

It is easy for the blood sugar to fluctuate more up and down and for it to become high due to stress hormones such as adrenaline. Already during training, if the blood sugar is too high, the body goes into lock-up and it functions poorly. For example, in sparring, I see the punches but do not react, I become more like a punching bag. The energy runs out, it feels as if you can't take it at all, everything becomes heavy and the body doesn't obey. Nervousness and tension in the body together with carbohydrates cause the blood sugar level to rise sharply and become unmanageable. The challenges here are staying calm and composed and the unclear timetables.

Larger seminars and camps

These events usually last many hours and sometimes they last for several days. Depending on the content of the seminar, low-intensity activity can lower blood sugar and high-intensity activity can raise blood sugar. If the blood sugar level drops too low, I can't follow everything that's happening and don't really keep up.

Multiple roles during the same event and day

For me, it is not possible to have more than one role during an event. Sometimes it could be nice to be able to act as a judge or coach and then also compete yourself. Here the same thing applies to me that the stress inside becomes too great and the blood sugar rises and then I cannot perform optimally.

Normal ITF Taekwon-Do training and supplementary training

Before these exercises, it is much easier to keep the blood sugar at better levels. If the rest of the day has been busy and perhaps lunch was missed, it will of course be noticeable in the evening when we have training.

My methods

The goal for all diabetics is to maintain an even blood sugar curve. For me, who trains a lot and has chosen to practice the very demanding martial art ITF Taekwon-Do, it is extremely important. Within ITF Taekwon-Do, the sparring that is closest to my heart is also the discipline

most affected by poor blood sugar values. I prioritize planning and foresight in everything I do.

The most important thing is that I measure the blood sugar very often in order to be able to react faster when it is going in a certain direction. I measure blood sugar the old-fashioned way by pricking my finger and taking a drop of blood with the blood sugar test stick.

Today, there are more automated aids such as insulin pumps and CGM systems (Continuous Glucose Monitoring). I have not used these aids because the sports I do make it difficult to carry the equipment. In the case of both the insulin pump



and the CGM sensor, it is difficult to find a place on the body that is not subject to kicks, punches and other techniques that tear the equipment apart. However, I have tried the CGM system and it was a very good tool to keep track of sugar values continuously but unfortunately the sensor does not stick to the body because I sweat so much during exercise.

I am quite strict with what I put in my mouth and can therefore maintain a fairly good blood sugar curve in everyday life. Since I have had diabetes almost my entire life, I have learned very well what diet works for me. Since the beginning of the 1990s, I have been permanently employed in the IT industry. In my working life, I have always prioritized lunch, it has been important to me that I eat a well-balanced lunch. Breakfast is also an important meal which sets the foundation for the whole day. Always an endeavor to eat slow carbohydrates, which keeps blood sugar at a more even level and makes you feel full longer.

Since I am aware that diabetes in the long run leads to limitations in joint mobility, I do a lot of mobility exercises. Mixing up the exercises with some dynamic stretching exercises. I do these almost daily. I also regularly go to yoga 1-2 times a week. Astanga yoga does a lot of good for me in terms of both diabetes and ITF Taekwon-Don. Ashtanga is a dynamic form of yoga and is often described as one of the most physically demanding forms of yoga. What is typical of ashtanga yoga is to perform a certain number of positions in a specific order, where the breathing is synchronized with the movements in a flow, so-called vinyasa.

As a person, I make high demands on myself, which mostly leads to subconscious stress if it directly affects blood sugar. I also have a personality trait towards the introverted side. I feel at my best when external factors affecting me are at their least.

In order to be able to influence stressful situations, I have been helped by a mental coach (Cristoph Treier). Christoph gave me tools and knowledge I can use. Mainly I have focused on conscious breathing. I got the book "Medveten Andning, grunden för hälsa energi och harmoni" in English "Conscious Breathing, the foundation of health, energy and harmony", written by Anders Olsson. Through this book, I have received a lot of help in being able to consciously influence stress levels. I have also acquired a so-called Relaxator with which I can develop my breathing for the better. Through conscious breathing, I have, among other things, also learned how to calm down when I need to be calm with the help of a certain breathing technique. And just before I get in to ring, I use another breathing technique.

I strive to always be as calm and composed as possible. This also helps me in everyday life to keep the blood sugar curves even.

Relaxator

The Relaxator breathing trainer is a small and handy device that helps you improve your breathing habits. It is extremely easy to use — just place the Relaxator in your mouth and exhale through the adjustable resistance. The relaxer helps you achieve optimal breathing by stimulating the diaphragm to work as it should. The diaphragm is our most important breathing muscle and good diaphragmatic breathing means that the inhaled air ends up in the diaphragm to a greater extent, which is desirable as, among other things, oxygen absorption becomes more efficient. The heart rhythm and the brain rhythm follow the breathing rhythm. The relaxer helps you maintain breathing habits that are rhythmic and relaxed. Common



comments from users are that it provides inner peace, increased presence, better concentration, more energy, deeper sleep and reduced sugar cravings.

As a rule, I also incorporate some mobility and dynamic stretching exercises into the warm-up before all training sessions.

What should also be mentioned is that I always go with quick carbs in my pocket in case it's needed. Some type of chocolate bar or dextrose.

When it comes to the challenges I mentioned under the heading "My experiences and observations on how sugar levels affect performance", I do this:

What is common to the different situations is that I plan my diet very carefully and recharge my energy stores before the occasions.

Competition situation

On competition day, I eat nothing except a very light breakfast. Here I have learned that if I eat during the day of the competition, the blood sugar value rises very high. This is because what I wrote under the headings "Stress" and "High blood sugar level despite no food, what causes it?".

Seminars and camps

During longer seminars, I usually do not eat during the seminar day, even if lunch or breaks for eating are planned. This is to avoid the blood sugar level starting to fluctuate. After a successful recharge of the energy stores in the body before the seminar, it usually goes well.

Multiple roles during the same event and day

The different roles one can imagine having during an event is almost impossible for me. I have to choose a role and stick to it in order to perform. It becomes most problematic if I jump from the role of judge or coach to the role of competitor. Whenever I have acted as a judge or coach, the blood sugar is very high during and after the event and this is of course because these roles are stressful in their own way and you have to be focused for a long time.

The basic rule for myself is to find out and plan the day as best as possible, it makes it easier in every way to be able to keep track of blood sugar. It is important to be aware of what is happening in the future at all times. Then you can plan and eat right.

Since insulin is on WADA's list of prohibited substances, I make sure I always have a valid Certificate of Approval for Therapeutic Use.

The benefit is mutual when it comes to diabetes vs. ITF Taekwon-Do

ITF Taekwon-Do supports my diabetes

ITF Taekwon-Do's Oath and the Tenets, COURTESY (Ye Ui), INTEGRITY (Yom Chi), PERSEVERANCE (In Nae), SELF-CONTROL (Guk Gi) and INDOMITABLE SPIRIT (Baekjul Boolgool) form the basis of a healthy and stable lifestyle which is also the basis for being able to maintain a good blood sugar curve.

Being an assistant instructor means being structured, goal-oriented, knowledgeable and willing to lead by example.

ITF Taekwon-Do: all sub-areas constitute a very versatile training both for students, assistant instructors and instructors. ITF Taekwon-Do is challenging and demanding, and this means that in order to be able to perform all the techniques, you should take care of your body on all levels, e.g. strength, mobility and endurance.

All this means that there is a constant development in terms of the body and self-control. In addition, as a diabetic, I also get the regular physical activity required to maintain an even blood sugar balance.

My diabetes also supports me practice ITF Taekwon-Do

As a diabetic, I am used to regularity and strict rules ie. a structured lifestyle. In order to constantly improve the quality of life and an even blood sugar balance, it is necessary to have self-awareness. It also means that you should be honest with yourself. Taking care of your diabetes also means that you have to set goals to improve. A well-balanced and healthy diet is the basis for a stable sugar balance. In this way, good planning and a structured everyday life are assumed.

In my opinion, all these qualities of me as a diabetic support the development of myself in ITF Taekwon-Do.

Conclusion

In my opinion, it is generally good and useful for diabetics to practice ITF Taekwon-Do. Given that there are a lot of difficult challenges which can be negative for the body, the advantages are still the winner. It is clear that there are other sports you can practice, but I still think that ITF Taekwon-Do is so versatile and demanding that it is absolutely worth choosing ITF Taekwon-Do. The fact that art is versatile and demanding means, in my opinion, that one needs to learn one's body very well in many areas and levels, which in turn leads to an easier way for you to manage and understand your diabetes.

Practicing ITF Taekwon-Do gives you so much more despite the challenges of diabetes. To gain control over our hands and feet which are used as tools in this amazing martial art, one ends up training and concentrating on the whole body.

The body's core is the area that supports being able to do the techniques correctly and effectively. Because of this, training affects, among other things, mobility and the pelvis in a very diverse way compared to many other sports.

In my opinion, practicing ITF Taekwon-Do only brings positive things to a diabetic. Especially in my case because in addition to diabetes I also have asthma and a sedentary job.

What you get is at least the following:

- Healthier life
- Longer life
- A challenging and stimulating life
- Happy life
- A meaningful life
- Better mobility
- Enduring better at work
- Better self-awareness

I am very much looking forward to being able to move forward in ITF Taekwon-Don and warmly recommend this martial art form for diabetics and of course everyone else. Always trying to be inspirational and supportive to our students and with people within the ITF Taekwon-Do family.

We are always attracting more trainees to join this wonderful martial art.

References

https://calgaryherald.com/health/diet-fitness/longer-lasting-and-faster-acting-evaluating-newer-insulin-options-for-diabetes

https://www.mytype1diabetes.nhs.uk/resources/internal/insulin-types/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3537273/

https://www.diabetes.org.uk/diabetes-the-basics/types-of-diabetes/diabetes-mellitus

https://www.yalemedicine.org/conditions/hyperglycemia-symptoms-causes-treatments

https://medlineplus.gov/ency/article/000305.htm

https://www.mayoclinic.org/diseases-conditions/diabetes/in-depth/diabetes/art-20049314

https://www.terveyskyla.fi/sv/diabeteshuset/diabetes/lagt-blodsocker-och-insulinchock/symtom-pa-lagt-blodsocker

https://www.diabetesportalen.lu.se/artikel/elitidrott-och-typ-1-diabetes-da-ar-det-jarnkoll-som-galler

https://narokallan.se/en/relaxator