Aikido T1D

Training in Aikido with Type 1 Diabetes

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Aikidoka with Type 1

Anyone who has practiced Aikido can attest to the fact that it can be an incredibly intense workout for your cardiovascular system. For most people, this can be challenging enough, but if you suffer from metabolic disorders such as Type 1 Diabetes (T1D), it can be even more difficult. In this article, I'm going to discuss some of the techniques that I use to manage my disease/disability in a way that allows me to fully participate when on the mat. This is written for those who have familiarity with Aikido, but not T1D, so as a result I will explain concepts and terminology associated with diabetes, but not Aikido.

This is not meant as medical advice; neither myself nor Aikido of Charlotte is qualified to advise you on your medical conditions. Any changes you make should be discussed with your endocrinologist.

Background on T1D

T1D is an autoimmune disorder. That means that due to some (likely) genetic defect, our bodies mistook healthy cells as foreign bodies and decided to kill them. The cells targeted for death reside in the Islets of Langerhans which is a part of the Pancreas. Specifically, the "beta" cells (the ones that produce insulin) are targeted. The Islet's "alpha" cells produce glucagon, another important hormone that will be discussed later.

T1D differs substantially from Type 2 diabetes in the onset of the affliction. No one with T1D caused it. They didn't eat too much candy as children nor did they not take care of themselves. While it often affects children (even infants), it also affects people at any phase in their life. Even the elderly can find themselves among the newly diagnosed. Essentially, no one really knows why people get T1D, although there is some evidence pointing to genetics. If someone in your family has it, you might get it someday too (but it's not guaranteed). You can be screened for free to see if you carry the antibodies (the immune cells that eventually attack the Islets) by the good folks at TrialNet.

In T1Ds, the antibodies have completely destroyed the insulin-producing beta cells. Type 2 Diabetics retain the ability to produce insulin, but suffer from insulin resistance, which means it takes more insulin to maintain the same level of control. Type 2 diabetes is initiated/exacerbated by being overweight, inactive, and by stressing the beta cells by consuming large quantities of carbohydrates. Even if you don't have the antibodies that cause Type 1, if your weight, activity level, and diet are not under control you can be at risk of acquiring Type 2.

Describing what life is like living with T1D is difficult, but one good metaphor I've heard is that it's like having to manually beat your heart, all day, every day, for the rest of your life. It is a lifetime sentence as there is no cure; artificial insulin is not the cure, it simply keeps T1Ds alive until there is one. While the heart beating metaphor is gripping, it's more apt to say that living with T1D is about having to manually control your metabolism every day. If you jumped up right now and ran around the block, your body would adapt by automatically restricting the release of insulin and burning glucose (sugar) in the blood stream. If you ran long and hard enough, your

body would release glucagon (which signals to the liver to release stored sugar) such that you will be able to complete your run. Doing this manually is obviously a lot more complicated. As a result, T1Ds spend a considerable amount of their time thinking about their metabolism. A T1D with a distant stare on the mat could be thinking about how much they ate, how hard they are working out, how much insulin they took, how much longer the Aikido class is, and if they think they can make it.

This is very obviously a high level discussion about how T1D works, but it's an important primer to understand why certain elements of my Aikido routine are important. T1D forces you to become very intimate with how human metabolism works (because we have to manipulate it), and as a result, those non-T1Ds may find the knowledge gleaned here beneficial in the way they manage their own health.

Equipment

I use an OmniPod Insulin Pump and a Dexcom Continuous Glucose Monitor (CGM). THe OmniPod provides me insulin when I need it, and the Dexcom provides me a blood glucose reading every 5 minutes. I used to use multiple daily injections (MDIs), but not when I was practicing Aikido. Given what I know now, I'm not sure that I could make it work the same while on MDI, but if I only had to pick one of the two devices, I would choose the Dexcom. Having near real time data just cannot be beat. The alternative would be having to do a finger check in class, which would be cumbersome. But the trend line provided by the Dexcom is invaluable (it plots the readings on a graph that can show if you are trending up or down). I know that some diabetics use infusion pump sets, but I'm not sure how that would work, both in comfort and control, so I cannot comment. An infusion pump has a device about the size of a small cellphone that contains the computer and the insulin reservoir. It pushes the insulin through a tube into the "infusion site" which is essentially a small patch that covers a cannula (small tube) that is inserted under the skin. Because the T1D is essentially "tethered" to this device, it would make taking Ukemi extremely difficult and would necessitate disconnecting the pump and tube from the infusion site (which is done often by the wearers such as when they enter the shower, go swimming etc.). This would be difficult for me for as you will see below, I do need insulin during Aikido, so maintaining fine-grained glycemic control would be challenging.

For contrast, the OmniPod system has the same components, yet are split in two. The infusion site is covered by a disposable plastic "pod" that contains the insulin reservoir, circuit boards, and mechanics necessary to deliver insulin by itself. A remote device that looks like a small cellphone is used to modify the insulin dosage. In order to take ukemi while I wear this, I wrap the pod using reusable athletic wrap, typically the ones designed for wrapping a sprained ankle. This is for two reasons. First, if the edges of the pod catch on something, it can be ripped off. This is not a life threatening scenario, but it is a source of frustration. The pods are disposable and need to be changed every three days. Having to do a pod change before its time is up is never fun, but happens enough to be routine. The second reason is for padding. Taking a break fall directly on a pod feels much better when you have some padding on it. As for the pod itself, it's very sturdy and I have not had any problems with it malfunctioning during Aikido classes due to being jostled; not even any occlusions (clogged tubing). However there was one time (in

three years) where it was ripped off despite the wrap while doing Ushiro Kubishime Koshinage (uke pulled it off while sliding off my arm). For the record, that was one time in about 500 days of classes in three years so my record on this is pretty good.

I wear the OmniPod on my biceps/triceps and outer thighs (I rotate between all of these locations). Generally it's comfortable during classes, although sometimes while on my arms the compression from the wrap can cause pain. If this happens, I will excuse myself to adjust the wrapping and I can complete class without much concern.

The Dexcom CGM is worn on my abdomen, and I find that I don't need additional wraps to make this stay. I cover it with a t-shirt, my Gi pants, Gi top, and (depending on location) my belt. This provides enough padding to keep it from being torn off. The lace adhesive allows it to remain fixed on me without any concerns. The OmniPod adhesive is typically fine as well. However, during extensive workouts, such as on seminar days or a Summer or Winter Camp, I do find the the excessive sweating and humidity of the rooms can cause the edges to fray. As a precaution, I reinforce the adhesive with Skin Tac (the bottle with the sponge ball, not the wipes). I apply it over top of the lace adhesives although I know others will prep the skin before applying it. Skin adhesives are an extremely personal thing, so this may not work for you. There are a lot of products out there that can help, so I'm sure you can find something that works for you.

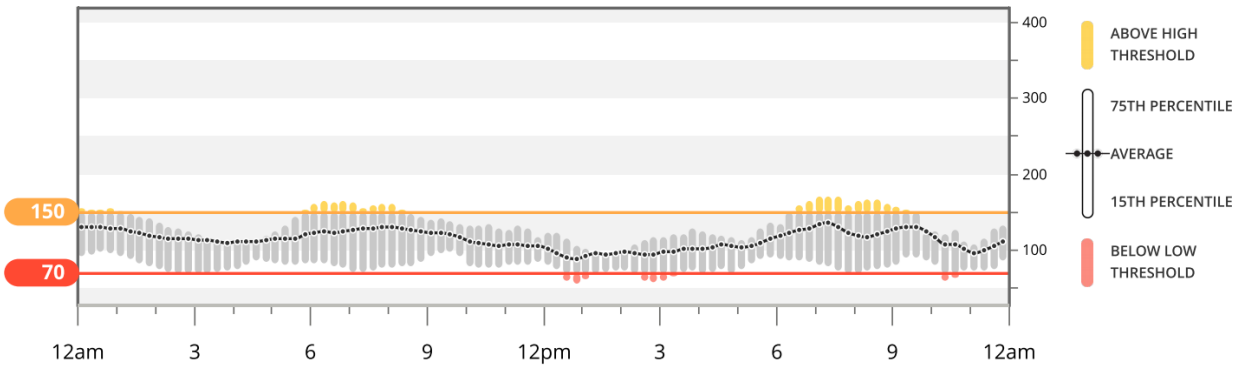
Glucose Curve

Using a CGM gives you an unparalleled view into how your body works. The Dexcom CGM provides not only a reading every 5 minutes, but a trend arrow that gives you an indication of the rate at which the numbers are rising or falling. These trend arrows look like this (taken from the Dexcom manual):

↗	**Slowly rising:** Your glucose is rising 1-2 mg/dL each minute. If it continued rising at this rate, your glucose could increase up to 30 mg/dL in 15 minutes.
↑	**Rising:** Your glucose is rising 2-3 mg/dL each minute. If it continued rising at this rate, your glucose could increase up to 45 mg/dL in 15 minutes.
↑↑	**Rapidly rising:** Your glucose is rising more than 3 mg/dL each minute. If it continued rising at this rate, your glucose could increase more than 45 mg/dL in 15 minutes.
↘	**Slowly falling:** Your glucose is falling 1-2 mg/dL each minute. If it continued falling at this rate, your glucose could decrease up to 30 mg/dL in 15 minutes.
↓	**Falling:** Your glucose is falling 2-3 mg/dL each minute. If it continued falling at this rate, your glucose could decrease up to 45 mg/dL in 15 minutes.
↓↓	**Rapidly falling:** Your glucose is falling more than 3 mg/dL each minute. If it continued falling at this rate, your glucose could decrease more than 45 mg/dL in 15 minutes.
No arrow	**No rate of change information:** The receiver cannot calculate how fast your glucose is rising or falling at this time.

Any arrows straight up or down usually require action on my part to manage during class. A slow rise I will usually tolerate while class is vigorous enough to smooth it out. A slow fall will usually be treated to prevent a low (suspended insulin or hypo treatment is covered in part 2).

Below is a 30-day average graph for me on Aikido practices nights (Monday, Tuesday, Wednesday).



You can see the upper and lower bounds that I target, as well as the vertical bars that show statistical variance. Yellow and red bars show where the variance falls out of target.

If you look at Aikido class times (6:30P to 8:00P), you can see that I'm letting myself ride a little high in order to support the physical exertion of class (I can practice if I'm higher, but not if I fall too low). T1Ds that use a CGM learn quickly to speak about how their glucose levels are trending, not in static fixed numbers. I will practice if I fall to 65 mg/dL, so long as the trend line is steady or slowly rising. Below that, I will sit out and eat to correct. If I watch the trend line, I can often take some preventative carbs before or during class sufficient enough to stave off a low. This took a lot of practice and very early on there were many days were I would need to leave class to eat. Management of this curve takes near-constant attention and a diligent approach to meal and fitness planning.

Insulin Dosage

If the only variable a T1D needed to manage was diet, it wouldn't be so bad. Unfortunately, there are many other hormones our bodies produce that require energy and they aren't shy about stimulating the release of stored glucose to make them work. A short list of these that are most impactful are cortisol, adrenalin, and growth hormones. Your blood glucose will also rise if you are sick. In other words, if you are injured, stressed, or growing, you will require more insulin. So basically, if you exercise and grow your muscles, you will need more insulin. This is particularly true for anaerobic activity, less so for aerobic. My advice here will not apply to anaerobic exercise. If you are lifting weights to grow mass, you are necessarily going to need a different regime (with more insulin). The good folks at Bolus and Barbells can assist you with that.

I keep a very close eye on my total daily insulin usage (a task made much easier by my pump). Insulin usage is directly correlated with weight gain, so I use this as a barometer of how well my overall health is. My daily usage tends to be under 30 units a day and I can watch my weight rise (ever so slowly) as I exceed that. I have read stories of professional weight lifters that will give themselves insulin to facilitate this kind of weight gain (a few types of insulin are available over the counter). As a result, my goal is to limit the total amount of daily insulin I need, while still maintaining excellent overall glycemic control. The normal range for non-diabetics is 80-120 mg/dL, and I strive to keep mine within 70-130. That kind of control results in an HbA1C in the sub 6.0 range. (HbA1C is a blood test that provides a rough, 3-month average of blood glucose control; 5.5 is considered the upper end of being non-diabetic). Endocrinologists typically advise their patients to keep their HbA1Cs at 7.0 or below.

Taking insulin usually comes in two methods: basal and bolus. Basal is the slow drip of insulin that a pump would provide you at all hours of the day and boluses are needed to cover meals and to correct for other things going on (see list of hormones above). My daily basal program look like this:

- Midnight to 7AM - 0.75 units/hr
- 7AM to 11AM - 1.50 units/hr
- 11AM to 1PM - 0.90 units/hr
- 1P to 4P - 1.25 units/hr
- 4P to midnight - 0.90 units/hr

Like most people T1D or not, you can see that the cortisol release prior to waking up takes its effect on me around 7AM (some people report this happening as early as 4AM, but it really depends on your circadian rhythm). This is referred to as the “Dawn Effect” and is a source of frustration for many T1Ds. Also like most people, I tend to be the most insulin-resistant in the morning hours so I leave the elevated basal rate in place well into the morning. You will see how I adjust for this in the diet section.

Temp Basals and Suspends

The basal program programmed into my pump does not have to run indefinitely (a major benefit of a pump versus taking long-term basal insulin by injection). It can be turned off in two ways: a suspend, which leaves the pump off and produces an audible alarm when the timer indicates, or a temporary basal, which after running will automatically revert to the daily program. I have two temp basal programs in my pump: 1) “Zero” which is no insulin and 2) “Exercise” which is 0.20 units/hr.

I know that if I’m approaching 20 total units of insulin by 4:00PM, I’m likely to have low blood glucose in AIkido class that night (class starts at 6:30P on weeknights) unless I take action. During Aikido class, I will usually suspend my basal program or run my Zero temp basal. Our classes run 90 minutes and I find that after class is over I typically need to resume my basal rate and also to administer a correction bolus. Typically, I bolus about 0.75 to 1.00 units. I attribute this to muscle growth that is releasing cortisol. The after class spike usually abates very quickly

with a correction bolus, which is typical of hormone based glucose spikes (in my experience). If I need to gently correct a rise in the Glucose Curve during class, I will use the Exercise temp basal program, or run the regular daily program.

The above suspension applies if I start class at about 90-100 mg/dL because I know that the activity level will cause me to fall. However, if I enter class towards the upper end of my range, say 120-130, I will leave the regular program running and monitor it to see the effect. If Aikido begins to cause it to fall as expected, I will turn it off again, but if not, I will give very limited boluses (always less than 1.0 units, typically 0.15 to 0.60). I try very hard not to "rage bolus" during class (give a large bolus out of anger at not being able to keep it in range). My goal is to maximize my time in class, so a precipitous drop or a big high does not allow that to happen. Overall, I will tolerate glucose readings that are higher than they should be during class as the aerobic activity allows me to smooth that out. Plus I don't like missing time on the mat.

One quick note about class on Saturday mornings. SInce I experience insulin resistance in the morning, I usually leave my base rate running for the entire class. Depending on how the readings show on the graph, I may adjust this, but it usually works out. I do not, however, need and after-class correction bolus after morning classes. Usually, I need to eat to stave off a low.

Meals

Meal plans are a big source of disagreement in the diabetic community. Everyone is passionate about their program and what works for them, oftentimes for some very different reasons. I know many T1D parents who are adamant that they will not restrict their kid's diets so as to not make them feel even more different from the other children. Thus, they will have tall pancake stacks with regular syrup, powdered sugar, and banana slices. I understand the sentiment to perpetrate a "normal" lifestyle for children and I'm certainly respectful of that. My perspective on this matter is twofold. First, given that diet is one of the few variables that T1Ds can control it makes sense to eliminate it as a source of problems. There is too much difficulty that cortisol, adrenaline, growth hormones, dawn effect, and the rest bring us. My personal philosophy is to remove diet as a source of problems in my glycemic control. Second, I dispute the very notion that consuming large quantities of carbohydrates *should* be considered a normal diet.

My diet is effectively a form of a low carbohydrate diet that I call "High Protein, High Fat, High Fiber" (HPF2). Really, it's how low carb diets should be. Many who eat low carb abuse the meat and dairy and ignore the benefits of fiber. I eat about 100 grams of fiber a day (about three times the minimum daily amount). Fiber is really how you "cheat" and eat enough in a day. I don't count non-starchy vegetables in my carb counts for boluses. I tend to get the majority of my fiber from vegetables such as peppers onions, broccoli, carrots (slightly starchy), flaxseed, edamame, and nuts. Many non-diabetics around me have adopted this diet to manage their own health. Since it's really designed for the long-term use, it's very adaptable to daily life. I've eaten this way twice in my life, the first shortly after being diagnosed with T1D. I lapsed for a few years, and my weight and HbA1C control suffered as a result.

The core of my diet is the prohibition of all pasta, rice, breads, flours, grains, cereals, milk and starches. So basically you are left with meat, dairy (cheese and non sugary yogurt), (some) fruit, and veggies. I target less than 40 grams of net carbs a day. Net carbs are useful shortcut to understanding how food will impact your body's ability to maintain glycemic control. To calculate, you simply subtract fiber from total carbs. I target 15-20 glucose impacting carbs a meal. I don't typically eat breakfast as from above you can see that I'm insulin intolerant in the morning. To the extent that I eat in the mornings, it's typically a couple handfuls of almonds, walnut, pecans, or pistachios (rarely peanuts). Sometimes if I have some flaxseed meal baked goods, I will eat one of those (muffins or granola; flaxseed meal bakes like flour and has essentially zero net carbs in it).

I eat lunch between 11:30 and noon, and will typically have chicken or beef with lots of veggies and some cheese. Instead of bread, I will eat a low carb tortilla (usually net 4-6 carbs), and I treat myself with some carrots and peanut butter. If you haven't tried carrots with peanut butter, you really are missing out.

I cannot overemphasize the importance of a pre-bolus to aid in this. If I go into lunch at anywhere above 70 mg/dL, I bolus for the entire meal about 15-20 minutes ahead of time. If, as I'm eating, the Dexcom arrow bends down to 60 or less, I will suspend for 30 minutes to give the food time to catch up. Artificial insulin is not as good as human insulin, so it requires extra time to act. If I can pre-bolus correctly with a controlled carb diet, I can keep my glucose from spiking out of range at all. By contrast, non-T1Ds will have their glucose range return to normal within 1-2 hours regardless of what they eat.

The meal plan up until this time is designed to keep my blood glucose as level as possible. If it is erratic in the morning, it's going to be even harder to manage glucose during Aikido. About mid-afternoon, I will typically get hungry and I try to postpone eating until at least 4:00P by using nuts or sunflower seeds. This is important, as my afternoon snack also serves as my pre-Aikido meal, and I prefer to not bolus for it. Low carb meals tend to have a very long, smooth glucose curve. So instead of an immediate spike in sugar, they tend to metabolize much slower and you will see a bump two hours later. So eating after 4 really primes the bump to happen during the height of aerobic activity. On my best days, I eat at 5 and I don't see a bump at all. My pre-Aikido snacks tend to be small, and very low carb. I will eat a cheese "sandwich" (really some cheese wrapped in about a quarter tortilla (1-2 net carbs), and some carrots with as little peanut butter as I can get away with. Sometimes I will eat a low carb protein bar in the car ride to class. You can find these under many brand names, but I like the Atkins bars (4 net carbs) and the low carb Kind bars (7-9 carbs). How much I eat really depends on where my sugar is at the time and what I project class will be like that day. For instance, I will eat more carb on Tuesdays as they tend to be heavy ukemi days, so I know I will need extra protection against lows. By "Extra" I mean up to 10 grams instead of the usual 4-5.

Note that these glucose curves tend to adjust over time. Long term low carb eating will tend to result in your body "learning" how to metabolize fat and protein faster (relatively). This simply necessitates a different insulin to carb ratio for your mealtime boluses, however I take

considerably more basal insulin than bolus: between 60% - 80% of my daily insulin usage tends to be basal. From this statistic alone you can see the benefit of low carb eating: a substantially flatter line in your glucose that is much easier to control with basal and very minimal bolus "bumps" throughout the day and at mealtimes.

After class, I will eat an evening meal. By this time, the after-class bolus will be working well, so I will bolus for additional carbs just before eating. The meal composition is about the same as lunch. Taco salads are good (no shells and use low carb tortillas with lots of veggies) or sometimes even roast beef sandwiches (no bread).

Hypos

Hypoglycemic events (hypos or just lows) are common when exercising as a T1D. These events make you feel very weak and your thinking slows down and feels very muddled. They can come on very quickly and depart just as quickly. Worse case, you can black out, convulse, and go into a coma. If a T1D passes out during Aikido NEVER GIVE THEM INSULIN. Call 911 and administer the Glucagon emergency kit (if they have one). Mine is always in my bag with me. This video can show you what that is like. The Dexcom helps to alert you far in advance of when they happen, but it's not perfect. Describing what it feels like to a non-T1D is difficult, but think about the hungriest you've ever felt, then remove the hunger and double the weakness. It's something like that.

When low, the urge to eat as much as you can is overwhelming. It's not hunger so much as panic about falling low and passing out. It takes significant self-control not to overeat. Most endocrinologists will recommend 15 grams of carb every 15 minutes until you are no longer below 80. I do not find this approach conducive to good glycemic management. First, as you can see above, most of my meals are under 20 grams of net carbs, which means I would be eating basically an entire meal to fix a low. Also, if you watch what 15 grams of carb will do to your glucose curve, you will quickly see that you will need to bolus to correct the carb correction. Instead, I tend to take corrections in 4 carb bites. I typically use glucose tabs to do this, and will often split them in half to gain better control (2 carbs versus 4). They work very quickly and I find them to be effective in management of lows. I know many T1Ds complain that they taste bad, chalky even, and they do. That's the point: you aren't supposed to like them, or else you will eat too many. The rebound high is just as bad as the low and you will be better able to manage them both if you can control how much you eat to correct them.

I've also discovered raisins are a great tool for managing lows as they are small and packed with carbs. This is especially useful for getting carbs into your body quickly without having to eat a lot (or if you drop after eating a full meal which is never fun). SInce they are carb-dense, you really have to be careful with them, but they keep well and travel easy. I will sometimes use raisins in-between back-to back classes or on seminar days to bump the glucose curve up for the next hour of training.

Other tactics worth mentioning are choosing when I will return to class. For instance, working with newer people tends to be less aerobic, so I can still practice while letting my glucose rise

slowly. Another favorite tactic is to return to class during weapons katas, as these often aren't as aerobic.

Cheat Days

T1Ds don't get cheat days. Sorry. Diabetes doesn't care if you are tired, sore, sick, depressed, frustrated, flustered, forgetful, or weak-willed. It requires near-perfect performance at all times. Being human, I am not perfect and I frequently make mistakes. I eat way more peanut butter than I should and I like to drink a lot of caffeine. And sausage--I really like sausages. I always joke that we all need a vice, and if peanut butter and diet cola is mine, then I guess life could be worse. For all the times I pass up the donuts or the birthday cakes that spring up like weeds at the office, I deserve a little latitude in some things. There is literally a nice lady at my office that bakes an entire batch of brownies and brings them into work on Thursdays. She leaves them at her desk not six feet from where I sit all day. I have attained Shihan-level control over my ability to resist such temptations in life.

Focusing on counting carbs in your diet will make you acutely aware of the significant amount of sugar, grains, and starches that exists in our foods. Long term low carb eating will cause your palate to adjust as well. In all likelihood, you forgot how sweet fruits really are and I find that berries are very capable of slaking your desire for dessert. I've also discovered ways to satisfy life's cravings:

- Breads - try flaxseed focaccia bread, or sprouted rye in small quantities
- Donuts - coconut flour donuts make a fine substitute
- Pancakes/Muffins - flaxseed again
- Cakes - almond flour is a good substitute
- Breading on chicken, porkchops, veggies etc. - almond flour
- Mashed potatoes - mashed turnips
- Pizza - use low carb tortillas or just veggies as a base
- Pasta - try using spaghetti squash and zucchini. They also make edamame spaghetti noodles
- Fries - sorry, I'm not a magician. Just don't eat fries, okay?

One of my meal planning philosophies is that we really don't like bread, potatoes, dough, etc. What we really like is the fat that we put on top of it. I often quip that the pizza dough is a conveyer belt for the meat and cheese that we REALLY want to eat. So feel free to use cheese and real butter in your meals.

There are many recipes online that can satisfy you. Feel free to reach out to me if you want more information, I have many pages of documentation for how I manage meals including recipes and options to layer variety into your diet so that you don't get bored.

Symlin

Remember those beta cells that produce insulin? Turns out the also produce another important hormone called amylin. Ever feel full after a meal? That feeling of being satiated by a meal is a

direct result of this hormone. T1Ds also don't make this either (on account of having no beta cells). It also controls the rate at which your stomach empties into your intestines. So as a result, without taking this, you will not feel as full and you will feel like you need to eat more often. Unfortunately, this can only be taken as an injection, and the most common side effect is that it makes you feel nauseous. This abates over time, mostly because you just get used to it.

Despite this, I cannot say enough good things about this medication (brand name Symlin). It allows me to smooth my glucose curves without having to take additional insulin (recall my goal of managing total daily insulin to manage weight). Often throughout the day, I will use symlin to bump my glucose curve down

Conclusion

My daughter was recently diagnosed with T1D and she's participating in the kid's Aikido classes. I'm using my experiences to give her the techniques she needs to be successful in managing her diabetes as she learns Aikido. And 's doing great! She's particularly proud of her Mae Yoko Kaiten Ukemi and Gyaku Hanmi Katatetori Kotegaeshi. Many T1Ds do not exercise because they are afraid of lows, but this is not a risk-free position to take. Not exercising means your body needs more insulin to maintain your metabolism, and the more insulin you take, the more weight you gain, the more weight you gain, the more insulin you need to have the same effect. Which leads to more weight gain. There really is no other option but to find some form of exercise that you enjoy and do it often. And watch what you eat; your diet should consist of mostly protein and veggies with some other things sprinkled in. This really shouldn't come as a surprise to anyone. The mantra of diet and exercise has been true for everyone for a very long time, we just like to forget (and I'm no exception). As a T1D, I benefit from having quantifiable, graphical proof of the difference in my metabolism as a result of eating and exercising well. While what works for me may not exactly work for you, I can tell you that generally speaking, eating a low glycemic diet and exercising more will improve your health. Being a T1D should not be a barrier to doing the things that you want to do. With the tips I've outlined here, you don't have to let T1D control your life, you can become an Aikidoka who just happens to have T1D.