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How Type 1 Diabetics Can Achieve a Good A1c in Prison

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Applies to all
Type 1 Diabetics

On the outside, I was so good at maintaining a "normal" A1c (~5.6-5.8%) ^{that} my doctor said I should write a book about it; so I did. It's available from NormalBloodDiabetic.com (via Archive.org, pre my 2/22/2016 arrest in their "Way Back Machine").

Here in prison, I was able to maintain my A1c in that "normal" range for four years, despite how difficult it is. My purpose here is to share some key take-aways I've learned the hard way, so you can benefit from my pioneering efforts without the difficulties.

First, let me say that I no longer target a "normal" blood sugar average, which is "100" ^(mg/dl) on the glucometer. My motivation has come from what my doctor told me when I was first diagnosed as type 1 diabetic two decades ago. He said that if I maintained good control of my blood sugar that I could live a full life.

The problem with shooting for a 100 average is that it means shooting dangerous lows to balance the highs. When I learned that going dangerously low results in brain cell diminishing, I changed my strategy. That is a terrible down

(This was spurred by having three incidents < Dextrose injections > in 3 weeks. ^{Alc 4/15/10} in 3 weeks. Obs.)

side that is unacceptable to me. So two years ago, I changed my target to 150, which is about an Alc of 6.8%. I'm confident that this is still in a range that can result in a full life, unimpaired, but it averts the dangerous lows.

I've not had a single incident, since then[†], of ~~regts~~ requiring medical intervention such as getting an injection (IV) of Dextrose. I've not lost consciousness, whereas when I targeted 100, I would have one or two such incidents per ^{on average} year[†] (here in prison). ^{Now,} Rarely, do I go low enough to trigger my body's emergency release of glucose from the liver via glycogenolysis. ~~So my~~ My typical fluctuations range between 80 and 300. Extremes are 50 or 400 and are rare. My present two-week average[†] ^{of readings} on my glucometer is 153: very close to my 150 target.

Here are some principles that serve me well:

- Don't eat until after you get insulin (unless you are low and need to eat enough to get back to target < is a separate & important bullet >)
- Target 150 on the glucometer.
- Know approximately how fast your blood sugar drops after getting fast-acting insulin. (Mine drops ~ 125/hr).
- If your blood sugar is high (e.g. above ¹⁵⁰ 200),

(3)

then wait for your blood sugar to get to the target range before eating, after getting insulin.

- Don't eat the meal all at once (lower priority).

Eat main carb first, wait half an hour, then eat second-level carb, wait half an hour, then ~~wait~~ eat the next item. (This is because the ^{injected} insulin doesn't release all at once but is more gradual, tapering off after about 3.5-4 hours.)

- Realize that different foods take different lengths of time to become glucose in the blood.

Here's what I've found by paying attention (to keep rigorous notes).

- Fruit takes 15-30 minutes;
- Honey & syrup & sugar take ~10-15 min.s;
- Wheat takes ~30 min.s;
- Oatmeal takes ~2 hrs.;
- Corn takes ~2 hrs);
- Rice takes ~3 hrs);
- Protein (e.g. nuts, peanut butter, eggs, ^{cheese,} meat, milk) takes ~5 hrs (~~see~~ some of the amino acids, if used in muscle repair/building, turn to glucose);
- beans (whey, baked, etc) take ~1 hr;
- veggies (don't have much glucose, can nearly be ignored from a glucose perspective, esp. salad, broccoli) take ~30 mins.

- Understand approximately how much glucose comes from typical food/dish servings. e.g. an apple raises blood 50-75.

- The proper long-acting insulin dose objective is to hold the blood sugar level steady after the

short-acting insulin has worn off. The best time to check this is late evening, ~4-5 hours after the PM insulin administration.

- Bear in mind that most insulin types, including long-acting ^{much more} act rapidly if injected into a blood vessel. All tissue is interspersed with intermediate-sized blood vessels, as evidenced by (A) occasional bleeding externally once needle is pulled out, and (B) bruising (internal bleeding). Occasionally, you're going to unknowingly hit a blood vessel ~~for~~ for either all, ~~or~~ or a portion of the injection. Novolog doesn't do this. (It's one of the reasons it's expensive?)
- Split your long acting insulin to twice a day, AM & PM, ~12 hours apart. That way, if a ~~dose~~ ^{dose} is injected into a blood ~~to~~ vessel, the entire 24-hour ~~the~~ dose is hit blown, going to fast-action (which can be dangerous. I had to eat 5 oranges once to counteract this.)
- If your prson only administers insulin 2x/day (is the case here), have your doctor refer you to an endocrinologist, if necessary, to get it 3x/day, one for each meal, and allow a 2x dose at PM if ~~noon~~ noon doesn't arrive for some reason.
- Keep an insulin log to track things.
- Check your sugar level at least 6x/day to know where you're at (to know what's going on).

I check mine quite a bit more than that.
Data is important. You don't drive a car blind-folded.

- I have what's (lay man's term) called "Morning Rise Phenomenon", (somewhat rare), in which my blood sugar rises in the morning, starting around 3:30 am (I get up at 6:20 am) rising at an increasing level (~20/w ~~fast~~ at 5:00, ~40/w at 2 hrs; ~80/w by 6 am). To counteract this, I take extra long-acting (12 ^{units} instead of 5) 2x/day to produce an on going downward pressure. I counteract that at night by having 1 Tablespoon of peanuts or peanutbutter (has sugar in it) every 20 mins starting at 4 pm until 8:30 pm. Those take 5 hrs to hit as sugar, until ~3:30 am (I know that math is off[#]), effectively giving me an insulin boost, then, to counteract the morning rise.

(there's about an hour off break-even)

- In interacting with the medical staff, be confident but not loud/friendly, but don't overdo how good you are at this, as that tends to backfire.

