

## Dexcom G6

### Disclaimer

I'm not a doctor and this essay should not be taken as medical advice. It is an honest review by a type 1 diabetic, including decades of day-to-day with insulin pumps and years with Continuous Glucose Monitors (CGM). I've also worked in medical devices and digital health.

### Dexcom G6

I got the Tandem t:slim X2 and Dexcom G6 on November 11, 2019, so as of Veteran's Day 2020, I've spent a year with the device managing my day-to-day blood glucose.

### Software

The software ecosystem evolving around these devices is growing rapidly, as the devices have proliferated.

The first insight for me when I got the X2:G6 combo was that it was tiresome to reach for the pump frequently just to check my blood glucose. Getting the BG from the Dexcom G6 on my phone took more effort because I have a Google Pixel 4a, which was not supported by Dexcom at the time. Luckily, there's a very capable individual doing custom builds of the Android version of the Dexcom app on the internet. Just go through the form and you'll receive an APK build that can be loaded on an unsupported phone like my Pixel. It has worked perfectly for a year for me. That person deserves kudos!

Once I realized that checking BG on my phone was going to be nearly as tiresome as on the insulin pump itself, I decided to check out watches, reflecting that blood glucose is arguably the killer app for digital watches, especially for someone who is highly active. I quickly realized that the Dexcom supported the Apple Watch pretty well, but that wasn't an option for me having an Android phone.

I was also concerned about the cost of the Apple ecosystem having used it previously.

The real leap in learning came when I discovered an app on Github that runs on Fitbit Versa and similar devices. A quick trip to BestBuy and some configuration meant that I could track my BG on my wrist while exercising for a little over \$100. Glance has been a game changer for me since I use it daily when running or walking the dog and at-a-glance while sleeping has alerted me to problems that I otherwise would have missed. Kudos to Ryan Mason! Once you get past the excellent Dexcom Clarity app, the most well-designed of the apps available is SugarMate. I use it everyday for information-rich spot checks. Sugarmate joins the list of quick exit diabetes startups acquired by either Dexcom or Tandem, like TypeZero.

### Cost

Dexcom G6 sensors are expensive though that's started to change now that we have competition in the form of the Abbott Freestyle Libre 2.

G6 Sensors are over \$300 per box of 3, each with a 10 day usage, with a membership and a prescription at Costco pharmacy.

This is the best pricing I've found without US health insurance.

There is competition in CGMs, but that competition is limited, given the proprietary integration with the insulin pump.

### Results

I'm a big believer in evidence-based medicine. It's early but there's some interesting evidence available already. The easiest way to demonstrate the effectiveness of a medical device is 24x7x365 use for a year or so with results. That population survey is n of 1 or quantified self, and there's more to it than just the medical device (diet, exercise, and insulin); however, the medical device plays an outsized role in making good results possible, probable, and predictable, if not perfect.

The gold standard of results in diabetes control is Hemoglobin A1c. My HbA1c was 8.9 prior to acquiring the Tandem t:slim X2 and Dexcom G6 in the fall of 2019, and HbA1c tested in the same lab at 6.4 in February of 2020, and 6.3 in January of 2022 - both below the diagnostic threshold for type 1 diabetes, after only 3 months with the X2, G6, and Basal IQ. I've found GMI to be conservative, meaning that GMI is generally higher than my lab's HbA1c - roughly .5 higher on average.

Regardless, the evidence speaks for itself. Prior to acquiring the X2 and G6, I had no way of approaching perfect control, where perfect control is defined as 100% in range for T1D which is generally accepted as 70-180.

Today, I routinely have days where my blood sugar is 100% in control and most days are above the 70% in control benchmark, regardless of diet or exercise.