

DIYCGM

<https://personalscience.com>

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Contents

Chapter 1

Prerequisites

Continuous glucose monitoring (CGM) is among the most exciting personal science experiments you can conduct on yourself. This book will explain how to get started.

Before you buy one of those expensive kits from one of the many commercial companies that offer the devices as part of their diet and nutrition programs, learn how to do it yourself for about \$30 - \$50. All of the direct-to-consumer kits use the same FDA-regulated device that is available at your local pharmacy for fraction of the price.

This site will show you step-by-step how to get the same results as the expensive products: an instant look at your glucose levels at any time day or night. After that, you can decide for yourself if it's worth it for you to buy the other services.

Chapter 2

Introduction

This is a list of resources useful for building products that work with continuous glucose monitoring devices. Consider this document to be in the public domain, free to use however you like (but of course with absolutely no guarantees of accuracy).



**Personalized Health
Advice Every 60 Seconds**
How I hacked my diet using a continuous
blood-glucose monitor.

 **NEO.LIFE**
Jan 17 · 8 min read

Start with this article by Richard Sprague at NEO.LIFE: “Personalized Health Advice Every 60 Seconds”.

Also read this good overview by Henrik Berggren from Steady.Health.

Chapter 3

News and User Experiences

- **New York Times Health Reporter Anahad O’Connor** wrote about Nutrisense, January.ai, and his personal experience using Levels Health. <https://www.nytimes.com/2021/02/08/well/diet-glucose-monitor.html>
- **Lydia Ramsey**, senior reporter at Business Insider wrote a detailed summary of using a Dexcom G6: <https://www.businessinsider.com/what-its-like-to-track-blood-sugar-with-a-continuous-glucose-monitor-2019-11>
- **Eric Jain** wrote a short, highly-readable account of his month-long experience: <https://eric.jain.name/2018/11/25/tracking-blood-sugar/>
 - And a Hacker News thread about his post
- **Quantified Diabetes** does rigorous self-experimentation at <https://quantifieddiabetes.com/p/experiments.html>.
- **Lily Nichols** is a registered dietitian who wrote “What I Learned as a Non-Diabetic”
- **Jimi S**, a 25-year-old diabetic wrote a lengthy review: Review: FreeStyle Libre — Abbott Diabetes Care | by Jimi S.
- **“Quantified Bob” Troia** wrote “How to measure personal glucose response to foods”
- **Jennifer Wang** writes “Am I Crazy Because I Eat Too Much Sugar?": <https://medium.com/@neogeo25/am-i-crazy-because-i-eat-too-much-sugar-a-cgm-experiment-5b310f334f10>
- Follow Jessie Inchaspe’s incredible Instagram account on her experiences with food and CGM: <https://www.instagram.com/glucosegoddess/>



Figure 3.1: Glucose Goddess

- **Kevin Bass n-of-1:** A PhD student kept (2018-19) alive Twitter feed of his CGM data
- Why Perfectly Healthy People Are Using Glucose Monitors: Time Magazine article from 2017
- Hacker News thread about CGMs and sugar metabolism
- Interactive web app with daily updates from the Personal Science glucose monitor.
- How accurate it is: a user posts side-by-side comparisons of Freestyle Libre vs pinprick
- Reddit forums Lots of posts in diabetes-related forums

Libre2 announcement (Oct 2018)

Chapter 4

How to get your CGM

The FreeStyle Libre is available over-the-counter at most pharmacies throughout the world (including Mexico and Canada), but requires a doctor's prescription in the United States.

A month's supply of sensors costs under US\$100, so don't bother trying to get your health insurance to reimburse you unless you have a specific medical reason, in which case consult your doctor.

There are three ways to get one in the US:

1. Ask your doctor to prescribe one for you. The Freestyle Buying Guide gives detailed information about how the product works, and what to tell your doctor. Most doctors will be happy to prescribe it if you explain that you'll be paying out of pocket.
2. Tastermonial will connect you with a doctor who can provide a prescription for \$29. This is the easiest solution for most people.
3. If you're traveling to Canada, Mexico, or other countries, you can pick them up locally, or you can order one to be shipped into the US. Michael Cohn describes how he got one from Canada for about \$100

4.1 What to buy

Buy the 14-day sensor by itself. If you have an iPhone 7 + or an Android, don't bother buying the Reader (which is an additional US\$200).

4.2 Companies and CGM-Based Products

Several companies will give you a month's worth of CGM with an app and nutrition advice for under \$500. See link below.



Figure 4.1: January, Inc.

<https://january.ai/> \$499 4-week program includes 2 Freestyle Libre devices and an app to guide your eating, fasting, and exercise choices.



Figure 4.2: Nutrisense

<https://www.nutrisense.io/>: Join their “cohort” and receive 2 CGM devices/month and 24/7 nutritionist advice with an app that tracks your glucose, fasting, and more.



Figure 4.3: Steady Health

<https://steady.health/> a San Francisco-based clinic providing CGM-centric diabetes care. Their programs cost about \$60 / month and include AI-aided smartphone-based coaching and education around food and exercise, plus data interpretation with an endocrinologist. This is a good choice if your doctor has diagnosed you with diabetes.



Figure 4.4: Levels Health

<https://www.levelshealth.com/> offers “metabolic health” services, including a CGM and nutritionist consultation for about \$400/month. You’ll need to request access for a specific quote and availability.

