

Living with Technology

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Bionic Wookiee

About me

T1D since 1982,
Coeliac since 2017

Lots of diabetes tech
Coeliac: nothing



Tech isn't going to suit everyone

Funding issues restrict access for many.

Otherwise the **ONLY** restriction should be user choice.

My own tech choices are for *my* needs.



My diabetes tech

- ▶ Pump
- ▶ CGM
- ▶ Hybrid closed-loop controller
- ▶ BG meters
- ▶ Management/analysis software



My hybrid closed-loop

Uses CGM and carb data to continually adjust insulin pump

It re-calculates on every CGM update

- Varies the pump's basal rate

Continually works to keep my BG in range!

Hybrid Closed-Loops

Commercial HCLs are coming

- Medtronic 670G
- others (Tandem next?)

Opensource HCL systems are here

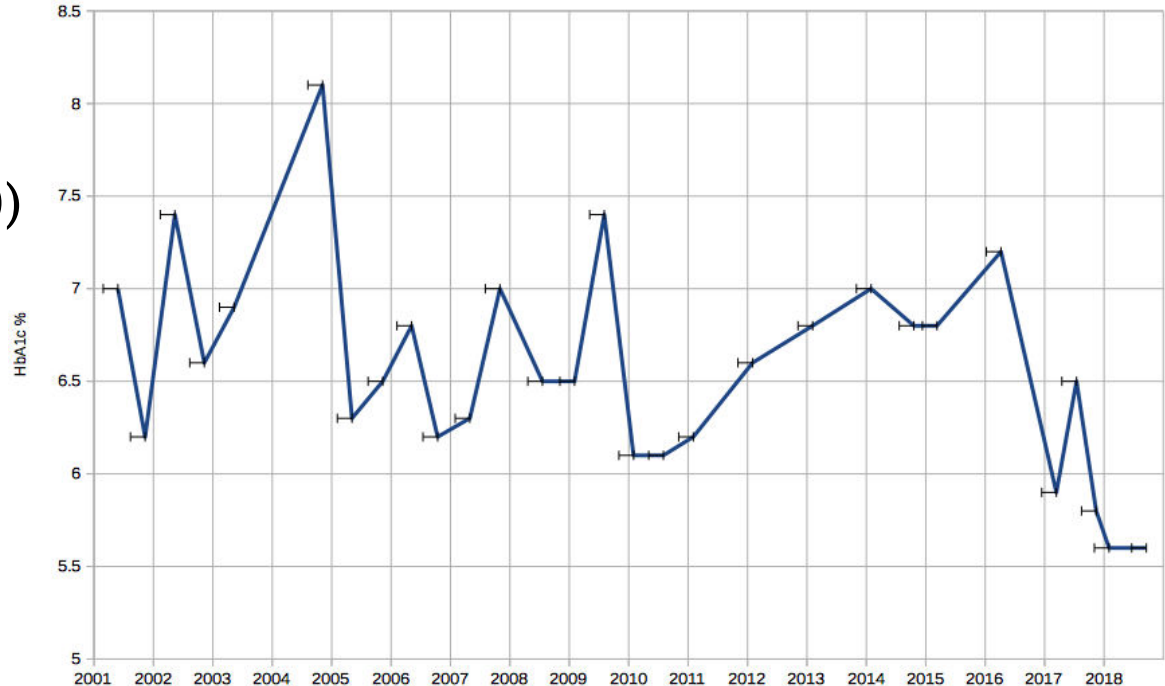
- OpenAPS, Loop, AndroidAPS

My own results

Technology definitely helps me!

TIR: 95+% (3.9-10)
CV: <25%

I *wish* I had
historical stats!



My medical team

My endo helps with overview

- Provides extra set of eyes on my data.
- Provides a “Medical” perspective.
- Learning new data paradigms.

My educator helps with any pump advice

GP and other specialists

Me

My days

Mostly NOT thinking
about managing my
diabetes

Diabetes is in the
background



Safety

I've always been in control of my insulin.
Not always perfectly.

But life goes on

Like most of us, I've stayed out of DKA/hospital

Dosing insulin

We all understand the basic maths

DIY HCL systems use the same maths

- Doesn't get tired
- Implicitly avoids “stacking” insulin
- Recalculates every 5 minutes

Driving at night

Consider
minimal
tech:
fingerpricks
only



Minimal
Tech

No CGM
(headlights)

Driving
blind.

Living in the
moment,
on hope and
how you
feel.



10:00
10:00



36

No CGM

Occasionally
you can see
what's
going on
around you.



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No CGM

A fingerprick tells you where you are now.

You hope you know where the road is going.



No CGM

You keep
going on
hope until
the next
test.



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CGM Headlights

Life is so
much easier
with the
lights on!



CGM Headlights

You can
react to the
conditions
BEFORE you
hit a
problem!



CGM Headlights

You can
anticipate
what's
coming.



CGM Headlights

And you can
speed up!

Alarms can
warn you if
you're
leaving your
lane.



Added Tech (APS)

Driver-
assist tools:

- ▶ Control your speed.
- ▶ Keep you in your lane.



Added Tech
(APS)

Less tiring!

They can
even park
your car.

These do
not replace
the driver!



We want safety for everyone!

Should my doctor worry about me driving while using insulin?

Is a CGM user safe driving a car?

- ▶ No-one loops without a CGM!

We're driving through life every day.

It's just safer now than it has ever been!