



Patient Care + Research + Clinical Trials

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Loop installation in-house at BCDiabetes

The [Artificial Pancreas](#) (automated insulin delivery, AID) is here and we are not waiting! On 2020-Aug-1 BCDiabetes began doing in-house installations of the Omnipod Eros-Dexcom G6-Riley link Loop system. Although this system is not Health Canada approved, Loop is our default recommendation for the Artificial Pancreas. This is because Loop is 1) a mature technology with a conservative algorithm in use by more than 20,000 Type 1s worldwide & 2) more affordable (\$20/day), with BC Pharmacare of both the Omnipod pod & Dexcom G6. Based on existing algorithms the Tandem T-slim with Control IQ is our second choice & the Medtronic 670G/770G our third choice. If you wish to start with either the Medtronic or Tandem systems [email us](#) & we will support you by filling in the necessary forms and continue to work with you afterwards.

BCDiabetes has installed one or other version of Loop for 100+ of its clients (including 25 of pediatric age) using the Omnipod Eros system. See [this powerpoint](#) showing A1c & Time in Range outcomes for our first 74 clients on whom we have 3+ months of data: in summary average A1c before Loop was 7.3 and 6.6 at latest measure; average Time in Range before Loop was 66% and 77% at latest measure. Read a BCDiabetes client's experience of [the first two weeks of using Loop with Autobolus](#). These clients (& the parents of kids on Loop) are all sleeping through the night and experiencing life without the rigors of diabetes for the first time in years. All they need to do is change their pod every 3 days, their CGM every 10 days, charge their iPhone as usual and their Orangelink every couple of weeks.

Since 2021-Apr-23 BCDiabetes has supported [androidAPS](#): No longer is an iPhone required to DIY Loop - most android phones (ver 9+) are compatible with androidAPS (androidAPS uses the advanced openAPS algorithm).

BCDiabetes has supported freeAPSX since 2021-Sep-10 and has become comfortable with its superior algorithm. For tech-savvy clients aged 12+ freeAPSX is now our preferred algorithm.

In case you want to configure & install one of these offerings yourself here are the links [Loop master branch](#), [freeAPSX](#) & [androidAPS](#). See also this instructive [powerpoint from our 2020-May-20 webinar](#), this 55 minute 2020-May [YouTube recording](#) of The Weekly webinar focussed on closed-loop pump systems in general, and a 55 minute lecture on the fascinating [history of Looping](#) given by Ben Mammon.

Because Loop, freeAPSX & androidAPS are not Health Canada approved we require a signed consent & waiver before we will consider installing either for you. BCDiabetes adult clients must [complete this online written consent & waiver for adults](#). Guardians of a minor BCDiabetes client must [complete this online written consent & waiver for minors](#). Applications for the installation of Loop, freeAPSX or androidAPS for minors also require the written (email is sufficient) consent of the treating pediatric endocrinologist or pediatrician (send to moa@bcdiabetes.ca).

At the time of your appointment (in-person preferred) you need to have with you the following:

Smartphone with active data plan connected to Dexcom G6 CGM

iPhone (6S or newer for Loop or freeAPSX) running the Dexcom G6 app

android phone connected to Dexcom with [xDrip+](#) (preferred) or the [Dexcom G6_patched_app](#)

Omnipod "Eros" pump (with spare pod)

[OrangelinPro](#) (an upgraded Riley link, US\$165 - pay online, pick up at BCDiabetes within a week)

[Looping Safety/Emergency kit](#) in case of failure of one of the system components.

We will share a link to either the Loop app (we are currently using Loop Master branch v 2.2.6 which includes the Autobolus option) or freeAPSX (v 0.2.3) from BCDiabetes' account on TestFlight, Apple's beta-test app store) or androidAPS from our own cloud source and help you with all the configuration, at no charge. If you are not a BCDiabetes client you first need to [register online](#), get a referral from any Canadian Physician (click [here](#) for quick referral form), and be seen for a regular appointment either in-person or virtually. Once we have the referral you will be seen within 2 weeks. The cost of the appointment and follow up will be covered in full by your Canadian provincial medical plan with the exception of Quebec. For Quebec residents the fee is \$1200 (initial appointment plus up to two weeks of daily follow-up).

When you are ready to try Loop, freeAPSX or androidAPS [email us](#) requesting an appointment for the set-up. The appointment itself can be either in person or can be done remotely/virtually (on Zoom).

We will have you up and Looping in 90 minutes and follow you along until you don't need us any more and offer regular follow-up every 6-12 months. Most Loopers are completely independent within two weeks. We will also provide you with an instant no-cost [Nightscout account](#) as long as you remain a BCDiabetes client. Nightscout makes for easy sharing of data with your loved ones and your diabetes-care team. Nightscout is not available yet in app stores though [you could build it painstakingly yourself in 4-6 hours](#).

If you are not trained on the Omnipod Eros pump and are a BC resident we will fill out and email a [Medical Necessity form](#) to Insulet (the manufacturer). A starter kit with two pods will be delivered to your home within a week: once you have completed basic online training (two sessions 3 days apart) and been certified, you are ready to Loop.

For the Omnipod pump, request that a BCDiabetes staff member complete paperwork or email [Andrew Muirhead](#) phone +1--604-754-6195 Omnipod pods can also be purchased reliably privately [here](#).

For the Dexcom G6, request that a BCDiabetes staff member complete paperwork & Rx or [order online](#) or email [Anthony Petrovich](#) phone +1-604-363-8776. A single freebie Dexcom G6 can be obtained [here](#).

For the OrangeLink Pro [order online from the manufacturer](#) (pick up at BCDiabetes).

For the Medtronic 770G pump email [Brenda Heaney](#) phone +1-604-312-7101.

For the Tandem Control IQ email [Teri Currie](#) phone +1-778-995-1268

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