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# Medtronic receives Health Canada license for MiniMed™ 780G System with advanced hybrid closed loop algorithm

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- Auto-correction algorithm delivers both background and bolus delivery which covers for underestimated carbs

Medtronic Canada is pleased to announce that it has received a license from Health Canada for its MiniMed™ 780G system for people living with type 1 diabetes. This system with advanced hybrid closed loop is the first and only insulin pump system in Canada that can automatically adjust and correct sugars every 5 minutes. \*

The system is designed to help avoid highs and lows thanks to the company's most advanced SmartGuard™ technology.

"Our latest system is designed for real life by increasing automation for an easier way to help stabilize sugar levels," said Laura Cameron, senior director of Endocrinology at Medtronic Canada. "Mealtimes can be stressful, especially when you're on the go, so we're pleased to have designed an advanced algorithm that automatically covers for underestimated carbs with meal detection technology."

The advanced SmartGuard technology enables users to personalize glucose goals with an adjustable target setting as low as 5.5 mmol/L – lower than any other advanced hybrid closed loop (AHCL) system[i] – and is designed to help stabilize blood sugar levels to further help improve glucose control. This system can also significantly reduce the need for injections – up to 96% for those using insulin pens alone.[ii]

"Without any question, people with type 1 diabetes face an incredibly difficult challenge with achieving blood sugar levels in the target range as well as a huge amount of burden even when they succeed," said Dr. Bruce



Perkins, endocrinologist, and professor of medicine at the Division of Endocrinology and Metabolism, University of Toronto. "I am excited by the major advancements in new devices and new closed loop algorithms that truly help people stay in range more consistently, get back in range when things haven't gone as expected, all the while simplifying the work of diabetes self-management."

The MiniMed 780G system is designed to require less input from the user, simplifying

day to day interactions with the pump. With its Bluetooth® connectivity, the system allows users and their care partners to see real-time glucose data and trends using apps on compatible iOS and Android™ smartphones.

According to the most recent data from the ADAPT study published in *The Lancet Diabetes & Endocrinology*, the first multi-national randomized controlled study comparing MiniMed 780G system versus the standard of care (multiple daily injections and CGM), individuals with type 1 diabetes using the MiniMed 780G system showed significant improvement across all glycemic metrics compared to the standard of care.[iii] This supports the use at early stages in the management pathway given the potential benefits of complication avoidance, and quality of life improvements.

"Since launching the world's first hybrid closed loop system, we continue to advance innovations that help people spend more time living their lives and less time worrying about their diabetes management," said Cameron. "The MiniMed 780G system delivers on our ongoing commitment to reduce the burden of diabetes and improve control for patients."

New customers buying existing pumps today can upgrade to the MiniMed 780G system at no cost for a limited time.\*\* Customers with existing MiniMed 770G insulin pumps will be able to upgrade via software update with support from Medtronic Canada in the coming months. The MiniMed 780G system hardware pump is expected to be commercially available in 2023.

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The MiniMed 780G is indicated for management of type 1 diabetes in people age

7-80 years with Type 1 diabetes, whose total daily dose of insulin is 8 units per day or more. The MiniMed 780G system is intended for the continuous delivery of basal insulin at selectable rates and the administration of insulin boluses at selectable amounts. The system is also intended to continuously monitor glucose values in the fluid under the skin. The MiniMed 780G system includes SmartGuard technology, which can be programmed to provide an automatic adjustment of insulin delivery based on continuous glucose monitoring (CGM) and can suspend the delivery of insulin when the SG value falls below, or is predicted to fall below, predefined threshold values.

\*Some user interaction is required.

\*\*Terms and conditions apply

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[i] In Canada, as of October 28, 2022

[ii] Data on File.

[iii] Choudhary, P., Kolassa, R., Keuthage, W., Kroeger, J., Thivolet, C., Evans, M., Ré, R., de Portu, S., Vorrink, L., Shin, J., Habteab, A., Castañeda, J., da Silva, J., Cohen, O., (2022). Advanced hybrid closed loop therapy versus conventional treatment in adults with type 1 diabetes (ADAPT): a randomized controlled study. *The Lancet Diabetes & Endocrinology*, 10 (10), 720-731. [https://doi.org/10.1016/S2213-8587\(22\)00212-1](https://doi.org/10.1016/S2213-8587(22)00212-1).

<https://news.medtronic.com/Medtronic-receives-Health-Canada-license-for-MiniMed-TM-780G-System-with-advanced-hybrid-closed-loop-algorithm>