Automated Insulin Delivery (AID) Systems



What are Automated Insulin Delivery Systems?

An insulin pump that communicates with a continuous glucose monitor (CGM) and smart algorithms to automatically adjust insulin delivery.



Continuous glucose monitor (CGM) tracks glucose values throughout the day and night, providing a value every few minutes in addition to the direction the glucose is trending (up, down, or stable).



The Pod/insulin pump delivers insulin continuously through a tiny cannula in the skin. The smart algorithm contained within the Pod/insulin pump automatically adjusts insulin delivery based on CGM values.

AID application on a personal compatible smartphone, provided device, or the insulin pump itself lets you control and monitor the systems operations. For example, at lunch you can use the AID app or insulin pump to deliver a bolus for your meal.



How do AID Systems differ from standard insulin pumps?

Automated Insulin Delivery Systems – continuously delivers insulin based on CGM values



Insulin Pump Therapy – continuously delivers insulin based on user programmed rates

How can an AID system help me day-to-day?1

It helps maintain normal blood glucose during daily activities that impact glucose values:









STRESS

Automated Insulin Delivery (AID) Systems

What are the benefits of using an AID system?^{1,2}



cemia

Less hyperglycemia



More time in range of 70-180 mg/dL



Improved quality of life

How does an AID system work?

Blood Glucose (BG) Predicted to be:	Automated basal insulin delivery:*	
ABOVE Target BG	Generally increases insulin until sensor glucose trends back towards target	As your glucose goes higher above target more insulin is delivered
WITHIN Target BG	Insulin is maintained to help keep sensor glucose near target	Glucose levels While near target glucose —o
BELOW Target BG	May decrease or pause insulin to help avoid low sensor glucose	
LOW BG	Pauses insulin delivery to help prevent low sensor glucose	As your glucose goes below target less or no insulin is delivered

* General descriptions of Automated Insulin Delivery Systems currently cleared by the FDA

Do I need to do anything with an AID system?

Users are still an important part of the AID system.

AID systems are sometimes called hybrid closed loop systems (HCL) or sometimes "artificial pancreas" is used to describe these systems. This can be misleading since the user still plays an important part in using the system. The user still needs to:

- Program and deliver insulin for meals (Bolus)
- Change Pods/infusion sets and CGM sensors/transmitters
- Manage alerts and alarms



- 1. Cinar A. Automated insulin delivery algorithms. Diabetes Spectrum. 2019;32(3);209-214.
- American Diabetes Association. 7. Diabetes technology: Standards of Medical Care in Diabetes 2021. Diabetes Care 2021; 44(Suppl. 1); S85-S99

MEDICAL DISCLAIMER: THIS HANDOUT IS INFORMATIONAL ONLY AND IS NOT A SUBSTITUTE FOR MEDICAL ADVICE AND/OR SERVICES FROM A HEALTHCARE PROVIDER. THIS HANDOUT MAY NOT BE RELIED UPON IN ANY WAY IN CONNECTION WITH YOUR PERSONAL HEALTH CARE RELATED DECISIONS AND TREATMENT. ALL SUCH DECISIONS AND TREATMENT SHOULD BE DISCUSSED WITH A HEALTHCARE PROVIDER WHO IS FAMILIAR WITH YOUR INDIVIDUAL NEEDS.



Insulet Corporation 100 Nagog Park Acton, MA 01720 USA 800.591.3455/978.600.7850 www.omnipod.com

© 2021 Insulet Corporation. Omnipod, the Omnipod logo, Pod University and the Pod University logo are trademarks or registered trademarks of Insulet Corporation. All rights reserved. INS-N/A-11-2020-00011 V 2.0

