

Diabetes Technology Basics

Diabetes technology refers to devices used to give insulin (pumps) or monitor glucose (continuous glucose monitors or “CGMs”). These devices are briefly described below.

Insulin Pumps

An insulin pump is a small, battery operated computer about the size of a deck of cards. It gives insulin through a small, flexible straw that sits in the fatty layer of tissue under the skin. Insulin is given through the same site for 2-3 days.

Users tell the pump to give insulin for food or for a high sugar. Pumps can give very small amounts of insulin. Giving insulin with meals and snacks is easier because separate injections are not needed for each dose. Settings in a pump can reduce low blood sugars.

Children using pumps need a lot of family support and close monitoring by their diabetes team.

Continuous Glucose Monitors (CGMs)

These devices use a tiny wire under the skin to measure the sugar between the cells. CGMs give a new sugar value every 5 minutes. They also show how quickly a sugar is going up or down. Some CGMs warn you that sugar levels are high or low. These features may help you reduce the number of high and low sugars. CGMs are typically changed every 1-2 weeks. Other benefits:

- Fewer finger pokes to check sugar.
- Reports about sensor sugar readings.
- Option to share sugar readings to the caregiver’s phone (based on brand).

Accuracy

CGMs are very accurate. They can replace finger stick blood sugars in many cases. However, there may be times a glucometer would be needed to check a blood sugar.

Hybrid Closed-Loop Systems

The newest diabetes devices use a pump and CGM together. Although some insulin delivery is automated in these systems, a lot of attention is required to avoid high blood sugars and diabetic ketoacidosis (DKA).

Learning More

Talk with your diabetes team to learn more about devices. Most people benefit from having a separate “technology visit.” You can learn about the most current pump and CGM options from a member of our team.

Insurance Coverage

Coverage for diabetes devices varies by insurance. Blood sugar logs (usually with at least 4 blood sugar results a day) may be required. Some companies decide on coverage based on time since diabetes diagnosis. For example, a pump or CGM may not be covered until 6 months after diagnosis.

If you are interested in using a pump or CGM, contact your insurance. Ask about cost, co-pays, and which devices your insurance covers. See the next page for commonly used codes. Some insurances cover CGM or insulin pump supplies under pharmacy insurance. Check your insurance’s formulary for coverage of these supplies.

Common CPT Codes

General Insulin Pump:

- E0784: Pump (includes Medtronic, Tandem, Omnipod PDM)
- A4230: Infusion Sets (includes Medtronic and Tandem)
- A4232: Reservoirs (includes Medtronic and Tandem)
- A9274: Pods

General Continuous Glucose Monitor:

- A9276/K0553 – Sensors
- A9277 – Transmitter
- A9278/K0554 - Receiver/Reader

More Information

For more information visit:

<https://patient.uwhealth.org/education/pediatric-diabetes-technology>

CGM

<https://www.dexcom.com/>

<https://www.freestylelibre.us/>

<http://www.medtronicdiabetes.com/home>

Insulin Pumps

<http://www.medtronicdiabetes.com/home>

<https://www.myomnipod.com/>

<https://www.tandemdiabetes.com/>

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 8/2020 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#8165.