Insulin Pump Basics

Insulin Pumps

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

Insulin pumps are filled with rapid-acting insulin. This insulin is given in two ways:

1. **Basal insulin:** The pump continuously delivers a small amount of insulin (basal rate) all day and night. This infusion is usually given instead of a long-acting insulin injection.
2. **Bolus insulin:** This is insulin given at meal times or when blood sugars are above the desired range. This is usually given when the user enters information into the pump.

Giving insulin with meals and snacks is easier with an insulin pump because injections are not needed for each dose. Pumps also allow users to adjust insulin more easily.

Hybrid Closed-Loop or Automated Insulin Delivery Systems

The newest diabetes devices are called hybrid closed-loop (HCL) or automated insulin delivery (AID) systems. They combine an insulin pump with a continuous glucose monitor (CGM) and an algorithm (software) that adjusts insulin doses up or down based on CGM trends. These systems can reduce the number of high and low blood sugars, increase the amount of time with sugar levels in the target range, and may help kids and parents worry less about blood sugars.

All Pumps Require Attention

Insulin pumps have many benefits, but **they require a lot of monitoring to make sure the pump is working and to tell the pump when the child is eating or has a high blood sugar.** Children using pumps need a lot of family support and close monitoring by their diabetes team.

Strategies for Success

The following strategies are needed to have the most success when wearing an insulin pump:

- Wear the device nearly all of the time.
- Wear a compatible CGM.
- Tell the system when eating a meal or snack.
- Tell the system about high blood sugars.
- Prepare for physical activity.
- Closely monitor sugar levels for any signs that the pump isn't working.

Learning More

Talk with your diabetes team to learn more about insulin pumps. Most people talk with their diabetes provider and then attend a session to learn more about pumps and the process for starting on an insulin pump.

Insurance Coverage

Insurance coverage for insulin pumps varies. Most insurances cover at least some insulin pumps and supplies. Typically, plans cover a new pump every **4-5 years.** Some plans may have an amount of time that you need to be diagnosed with diabetes before they cover a pump (sometimes as long as 6 months).

You can ask your **medical insurance** about the coverage for insulin pumps using these CPT codes.

- E0784: Pump (includes Medtronic, Tandem, Beta Bionics)
- A4230: Infusion Sets (includes Medtronic, Tandem, Beta Bionics)
- A4232: Reservoirs (includes Medtronic, Tandem, Beta Bionics)

Some insulin pumps are covered under **pharmacy insurance**.

- Omnipod 5 (pharmacy insurance only, **not covered by WI Medicaid/Badgercare**)
- Intro Kit (quantity 1, 0 refills) NDC # 08508-3000-01
- Pod Refills (quantity 3 boxes, refilled each month) NDC # 08508-3000-21

Some other insulin pumps may be covered through pharmacy benefit. This is usually discussed when a pump is ordered, and the request is sent to your insurance.

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 © 6/2024 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#8165