Diabetes: Starting an insulin pump

What is an insulin pump?
An insulin pump is a small device that gives rapid-acting insulin. The insulin is given in small, steady amounts over the course of the day and night. This covers your basal insulin needs. It can also give a bolus dose of insulin to cover meals and correction doses.

How does an insulin pump work?
• Insulin is stored inside the pump.
• The pump sends insulin to the body through a thin, flexible tube and a cannula (a small, flexible plastic tube).
• The most common places to insert the cannula are the belly, upper arm, and upper butt cheek (buttock). To prevent infection, the pump site and cannula should be changed at home every 2 to 3 days.
• The pump is worn all day, every day. It can be temporarily disconnected when you need to shower or swim.
• The insulin dose can be adjusted to cover exercise, carbs (carbohydrates), and sick days, as needed.

An insulin pump only delivers insulin. It can’t check blood glucose (BG), and most pumps can’t adjust insulin doses on their own. You and your child will need to do this, and it takes some work to get it right.

Why have an insulin pump?
Some reasons to have an insulin pump include:
• Smaller insulin doses
• Improved BG control during sleep or after exercise
• More flexibility in managing meals and blood glucose
• Fewer injections

Is pump therapy right for me or my child?
Pump therapy is not for everyone. Pumps work best for:
• Children and families who know how to manage diabetes well. They will need to:
  – Monitor BG and respond appropriately to highs and lows
  – Keep records of all BG readings
  – Show that they know how to count carbs
  – Be able to solve insulin dosing problems (including correction doses and adjustments for exercise) on their own
  – Understand instructions for a sick day
• Children who want the pump and have good family support. It’s not enough that the parents or caregivers want it for their child. The child must be ready for it too.
• Families who can afford the cost of the pump and supplies. Every insurance provider has different requirements. Check with your insurance provider to figure out your coverage.
What should I think about before getting an insulin pump?

Some things a family should consider before getting a pump are:

- It can be easy to forget to give insulin boluses before eating.
- The pump and supplies are more expensive than injections.
- Pump site infections are a risk.

- Pumps need to be worn almost all the time (except when doing certain activities).
- Pumps must be removed when you swim, shower, or bathe.
- It is still possible to get DKA (diabetic ketoacidosis) with a pump, especially with poor control or illness.

What does it take to get started on a pump?

6 to 12 months after diagnosis:

1. Talk with your diabetes care provider to see if pump therapy is a good choice for your child and family.

2. Do BG checks at least 4 times a day. Checking BG often can tell you if your child’s diabetes is well controlled.

3. Show your healthcare provider your food logs and go to a class to learn how pumps work, and about the different pumps available BEFORE ordering your pump.

4. Choose a pump and learn how to use it with help from a diabetes educator. Your healthcare provider may require a short trial period using saline instead of insulin so you can have safe hands-on practice with the pump.

5. Work closely with your diabetes care team as you start to use insulin in your pump. You will need to do extra BG checks and talk with your provider more often.

After starting an insulin pump

About 1 month after starting a pump, you and your child must go to an advanced pump education class where you will learn how to:

- Better manage your glucose highs and lows, lifestyle, and sick days while on the pump
- Use the advanced features on your pump