Insulin pumps can reduce some of the hassle of diabetes management. When using a pump, you are not bound by eating meals at specific times. You don't have to carry an insulin pen or syringes, although you should keep some on hand for emergencies. Insulin pumps have a bolus calculator that is personalized with your settings. The pump uses these settings to calculate your insulin doses for meals, snacks, and when your numbers are above target. If you don't know exactly what you are going to eat or how much, you can bolus for half the meal 10-15 minutes before you eat and bolus again for the remainder. If you were using an insulin pen, however, you would have to inject twice –once before the meal and once after the meal.

Insulin pumps allow you to be very precise with your insulin delivery. The insulin can be delivered in tiny doses as low as 0.05 or 0.05 unit increments. This is particularly helpful in small children or people who have very low insulin demand. The pump allows you to suspend insulin delivery for short amounts of time and to set temporary basal rates (for example, to reduce insulin delivery during exercise). Pumps replace the need for multiple daily insulin injections; however, they you still may have to take and injection rarely when you have ketones or if there is a problem with the device.

Insulin pump use has been associated with a reduction in hypoglycemia as well as improved HbA1c.

Insulin pumps aren't perfect. You have to wear the device continuously, and you have to be willing to troubleshoot when problems arise. For example, the tubing that connects the pump to your body may come loose or the cannula inserted into your skin may become blocked.

Talk to your diabetes care team about insulin pumps, and get their feedback on which pump might be best for you.

Reviewed by Anastasia Albanese O'Neill, PhD, 7/15/19

This document is not intended to take the place of the care and attention of your personal physician or other professional medical services. Our aim is to promote active participation in your care and treatment by providing information and education. Questions about individual health concerns or specific treatment options should be discussed with your physician.

Recommended

Pump Options

Hybrid Closed Loop

Sources

Insulin Pumps: Relief and Choice – American Diabetes Association

The Pros and Cons of Insulin Pump Therapy – Insulin Nation