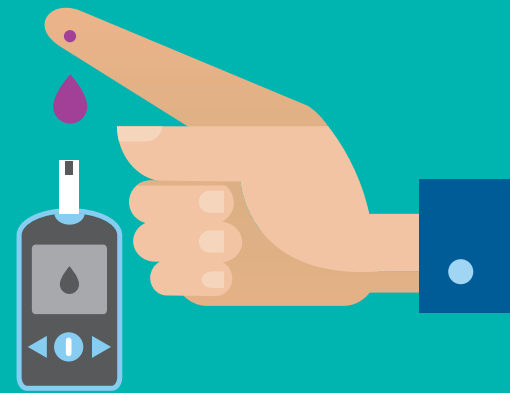


DIABETES TECHNOLOGY ROADMAP — WHAT'S RIGHT FOR YOU?



Getting Your Bearings

The goal of glucose management in all types of diabetes is to minimize and/or eliminate the complications of diabetes. Determining the best glucose management system for you is a bit like buying a car – you'll want to take a look at the latest innovations and technologies and choose the best features to suit your lifestyle.

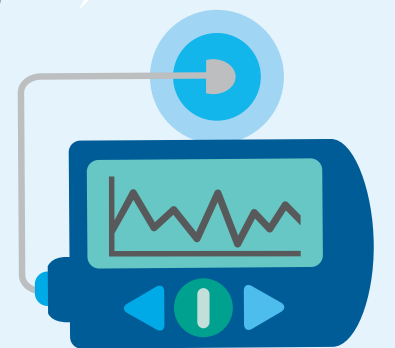
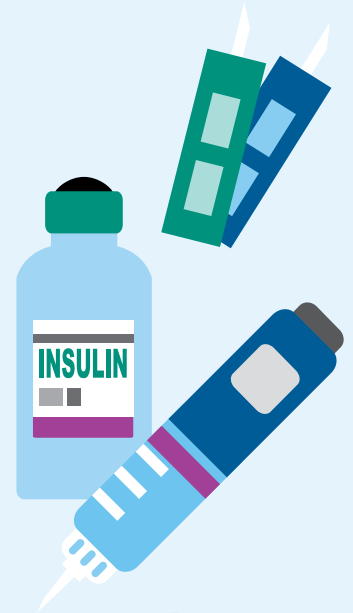
- **Blood Glucose Meter** — Most people with newly diagnosed diabetes first begin monitoring glucose levels with one of these meters, which provides a “snapshot” of your glucose level at a single moment in time. You monitor your blood glucose several times a day by finger prick to get a blood sample on a testing strip used with a blood glucose meter. It generates downloadable data to help you and your doctor determine the amount of insulin you need to inject.
- **Newer devices and technologies** — If you have type 1 or type 2 diabetes, ask your healthcare provider if one of the newer devices or technologies for controlling or monitoring your glucose levels and administering insulin may be right for you. For many years, providers didn't consider pumps or continuous glucose monitoring for people with type 2 diabetes. That is changing.
- **Terms you should know:**
 - a. CSII (continuous subcutaneous insulin infusion or insulin pump)
 - b. RT-CGM (real time continuous glucose monitoring)
 - c. Analog Insulin (genetically engineered insulin)



Checking Out the Newer Technologies

New technologies are available today that can really help improve your glucose management. They can help you avoid hypoglycemia (low glucose) and hyperglycemia (high glucose). Many of these technologies are becoming more common and may be covered by your insurance.

- **Insulin Pumps (or CSII)** — These are small computerized devices that deliver insulin in a steady measured dose and as a bolus dose at your direction around mealtimes. A flexible plastic tube called a catheter is inserted under the skin via a small needle. You can then program the device worn on your body to provide you with a continuous dose of insulin. “Patch pumps” are those that are worn without a tubing but is attached via the catheter and is worn on the skin. Pumps may be a good choice for you, if:
 - a. You prefer one needle stick every 2-3 days over multiple daily insulin injections
 - b. You don't mind wearing the pump on your body all of the time
 - c. You have type 1 diabetes or insulin requiring type 2 diabetes
- **Continuous Glucose Monitoring** — Using a wire placed under the skin, a real time continuous glucose monitoring (RT-CGM) system measures the glucose level in the fluid under your skin. A transmitter then sends the information to a wireless-receiver. You can program your monitor to sound and alarm if your glucose level goes outside a certain range or there is a rapid change in glucose levels. With some monitors, data can be integrated with your insulin pump, home computer, tablet, or cell phone, and may even forward data directly to your healthcare provider. This may be a good choice for you, if:
 - a. You want to gain insight and better understand your glucose levels and patterns and see what's happening between finger pricks
 - b. You and your healthcare provider are interested in obtaining more data for customizing your insulin dosing, meal planning, and exercise planning
- **Insulin Pens** — Each box of insulin pens contains either disposable prefilled pens or durable pens with cartridges for multi-day use that once opened, you may not refrigerate again but must be kept cool or at room temperature. If you have any doubt about how to store your insulin please check with your health care team. You will also get a prescription with pen needles. Each pen has a dose adjustment dial. You will need to use a new needle with each injection. Insulin pens are more convenient than syringes and vials, allow flexibility, and provide more precise insulin dosing. They can work with shorter needles. This may be a good choice for you, if:
 - a. You want the convenience of carrying insulin without a vial and syringe
 - b. You want an option for a thinner, shorter needle
 - c. You have low vision and prefer to hear or feel clicks for dosing your insulin
- **Analog Insulins** — These are genetically engineered types of insulin that are similar to the insulin your pancreas makes, but are changed slightly to allow for slower or faster action. They're available in multiple forms: rapid acting, longer acting, or a mixture of rapid and long acting insulin. Rapid acting insulin analogs start to act immediately, peak in the first hour after injecting, and last about 4-6 hours. Long acting insulin takes about 2 hours to start acting and is designed to act consistently through the day and last for up to 24 hours or more. One of these may be a good choice for you, if:
 - a. You are on an insulin pump (short acting insulin only)
 - b. You are active and need flexibility in eating times and activities
 - c. You are prone to low glucose levels, especially during the night



Reaching Your Goal

New technologies for treating diabetes can help you maintain a healthier life, possibly even returning your glucose levels to non-diabetic levels. Talk with your healthcare provider to learn more.

Additional Information — For more on these and other innovations and technologies for treating Type 1 and Type 2, diabetes, visit:

- www.hormone.org
- www.dailydiabetes.org
- www.diabetes.org
- www.jdrf.org

