Insulin—what's right for *you?*

If you have type 1 diabetes, you know there's one choice you don't have: Insulin therapy is the only way to make up for your pancreas's inability to produce the vital hormone. But what kind, which delivery system, what kind of schedule is best for you? It depends on many factors. Read on, then discuss your options with your diabetes care team.

Know the different kinds

• **Rapid-acting insulin.** Usually taken right before a meal, most rapid-acting insulins start working in about 15 minutes, peak within 30 minutes to 3 hours, and keep working for 3 to 5 hours. The newest type reaches the bloodstream in about 2 and a half minutes, which is especially helpful in preventing post-meal blood sugar spikes. An inhaled version begins working within 15 minutes, peaks at 30 minutes but leaves the bloodstream in an hour and a half; it must be used in combination with long-acting insulin.

• **Short-acting insulin.** Taken about a half hour before a meal, this type of insulin takes about 30 minutes to one hour to reach the bloodstream, peaks within 2 to 5 hours, and works about 3 to 6 hours. It's usually used along with long-acting insulin.

• **Intermediate-acting insulin.** This type reaches the bloodstream within 2 to 4 hours of injection, peaks 4 to 12 hours later, and works from 12 to 18 hours. It's usually taken twice a day to cover periods when rapid- or short-acting insulin stops working.

• **Long-acting (basal) insulin.** This kind of insulin, injected once or twice a day, helps to lower blood sugar for 24 hours. It takes a few hours to reach the bloodstream, and its effect is steady. It's often used with rapid- or short-acting insulin.

Just ask!

1. What type of insulin do you recommend and why?
2. How should I time my injections?
3. How can I calculate my mealtime dosages?
4. What if my mealtimes are unpredictable?
5. What if I have problems affording my insulin?

Know the different ways to take it

• **Needle.** You insert the needle into a vial of insulin, draw up your dose, then inject.

• **Pen.** Prefilled pens feature dosing dials that ensure you are taking the right amount of insulin. The needles are shorter and thinner than those typically found on syringes.

• **Pumps.** About the size of a cellphone, these computerized devices deliver insulin through a small plastic tube and a needle that is placed under the skin and taped in place. You still need to determine the amount of insulin, monitor your blood sugar and adjust your food intake and physical activity. The newest version, a hybrid closed loop system, combines a pump with a continuous glucose monitor; it automatically adjusts to your basal insulin needs and administers doses 24/7, helping your blood sugar stay in the target range. At mealtimes, enter the number of carbs you'll be consuming and the system calculates the dosage.

(See next page for help in deciding on the delivery system that's right for you.)

Know your blood sugar targets

Your diabetes care team can determine the best blood sugar goals for you. They will weigh various factors, such as your overall health, how long you've had diabetes and your history of blood sugar lows. Complete the following chart with the help of your endocrinologist. In turn, they can help assess the insulin dosages needed to get you to target.

Time of check	Blood sugar target range
Before breakfast	
Before lunch, supper and snack	
Two hours after meals	
Bedtime	
A1C	