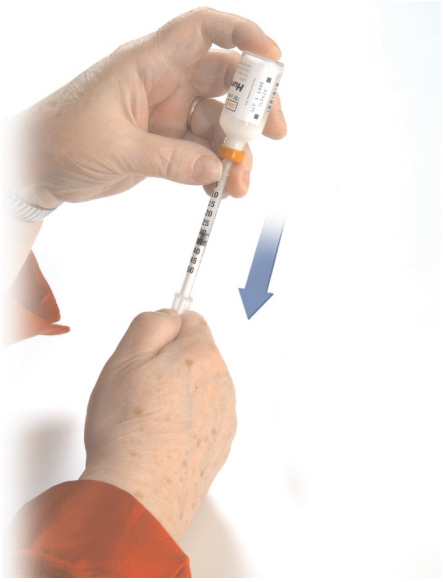
Diabetes: How to Give a Single-Dose Insulin Shot



Insulin is normally made by the pancreas, a gland behind the stomach. In people with diabetes, the pancreas no longer makes enough insulin or stops making it. Without insulin, your blood sugar level rises to dangerous levels. When this happens, you need to take insulin to keep your blood sugar at a safe level.

Getting started

If you have poor eyesight, have problems using your hands, or cannot prepare a dose of insulin, you may need someone to prepare your insulin injections ahead of time.

You also can use a special type of insulin "pen," which does not need mixing. This pen needs a needle attached at the tip. You can select the dose you need by selecting a number at the top of the pen. These insulin pens come in several types. They may be more expensive than insulin bottles. But they may be easier for you to use.

- Gather your supplies. You will need an insulin syringe, your bottle of insulin, and an alcohol wipe or a cotton ball dipped in alcohol. Keep your supplies in a bag or kit so you can carry the supplies wherever you go. Don't let the insulin get too warm or it won't work as well.
- Check the insulin bottle label and contents. When you use an insulin bottle for the first time, write the date on the bottle. On the 30th day after you opened it, throw away the bottle with any remaining insulin. Insulin may not work as well after 30 days of use.
- Wash your hands with soap and running water. Dry them well.

Prepare the shot

1. Roll the bottle gently between your hands to warm the insulin. Roll a bottle of cloudy insulin between your hands until the white powder has dissolved and the solution is mixed.
2. Wipe the rubber lid of the insulin bottle with an alcohol wipe or a cotton ball dipped in alcohol. (If you are using a bottle for the first time, remove the protective cover over the rubber lid.) Let the alcohol dry.
3. Remove the plastic cap from the needle on your insulin syringe. Take care not to touch the needle.
4. Pull the plunger of the syringe back, and draw air into the syringe equal to the number of units of insulin to be given.
5. Insert the needle of the syringe into the rubber lid of the insulin bottle. Push the plunger of the syringe to force the air into the bottle. This equalizes the pressure in the bottle when you remove the dose of insulin. Leave the needle in the bottle.
6. Turn the bottle and syringe upside down. Position the tip of the needle so that it is below the surface of insulin in the bottle. Pull back the plunger to fill the syringe

with slightly more than the correct number of units of insulin to be given.

7. Tap the outside (barrel) of the syringe so that trapped air bubbles move into the needle area. Push the air bubbles back into the bottle. Check that you have the correct amount of insulin in your syringe.
8. Remove the needle from the bottle. Now you are ready to give the shot.

Giving the shot

Clean the site and give the shot:

1. If you use alcohol to clean the skin before you give the shot, let it dry.
2. Relax your muscles in the area so the shot will be less painful.
3. Slightly pinch a fold of skin between your fingers and thumb of one hand.
4. Hold the syringe like a pencil close to the site, keeping your fingers off the plunger. Usually the syringe is at a 90-degree angle to the shot site.
5. Bend your wrist and quickly push the needle all the way into the pinched-up area.
6. Push the plunger of the syringe all the way in so the insulin goes into the fatty tissue.
7. Take the needle out at the same angle that you inserted it. If you bleed a little, apply pressure over the shot area with your finger, a cotton ball, or a piece of gauze. Do not rub the area.
8. Replace the cover over the needle.

Where to give the shot

You can inject insulin into:

- The belly, but at least 2 inches from the belly button. This is considered the best place to inject insulin.
- The top outer part of the thighs. Insulin usually is absorbed more slowly from this site, unless you exercise soon after giving the shot.
- The outside of the upper arms. You may need help giving yourself shots in this area.
- The buttocks. You may need help with injections in the buttocks.

Your doctor may suggest that you give your shots in different places on your body each day. This is called site rotation. If you decide to rotate sites, check with your doctor to make sure you know how to do it right. Use the same site at the same time of each day. For example, each day:

- At breakfast, give the shot in one of your arms.
- At lunch, give the shot in one of your legs.
- At dinner, give the shot in your belly.

Change the spot where you give an insulin injection slightly each time. Using the same spot every time can cause bumps or pits in the skin. For example, use five different places on the right upper arm, then use five places on the left upper arm.

Use a different syringe and needle for each injection.

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