# GIVING INSULIN WITH A VIAL & SYRINGE

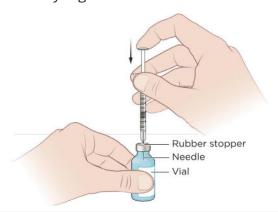
Vials and syringes are one way to give insulin. It is good to know how in case of an emergency. To give insulin this way, follow the steps below.



- 1. Wash your hands.
- 2. Check the insulin bottle to make sure it hasn't expired.
- 3. Remove the lid from the insulin bottle.
- 4. Wipe the rubber top of the bottle with an alcohol swab.
- 5. Remove the cap from the syringe.
- 6. Pull air into the syringe by pulling back on the plunger until its black tip is even with the line showing the dose you'll need.

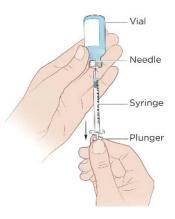


7. Push the needle through the rubber top of the bottle. Push the plunger down so that the air goes from the syringe into the bottle.

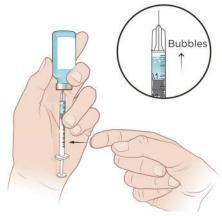




8. Turn the insulin bottle and syringe upside down. To pull insulin into the syringe slowly pull back on the plunger until the top of its black tip is 3-4 units past your dose.



9. Keep holding the bottle and syringe upside down. Look for air bubbles in the syringe. If you see bubbles, tap the syringe to move them up to the needle. Push the plunger up until the bubbles are gone. Slowly pull the plunger down again until the top of the black tip is even with the line showing your dose.



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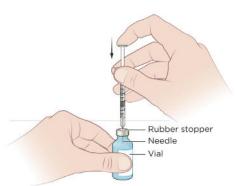
# How to fill a syringe if you use two kinds of insulin

You can mix cloudy insulin with clear insulin in one syringe. If you do mix insulins, always pull the clear insulin into the syringe first. Pull the cloudy insulin into the syringe last.

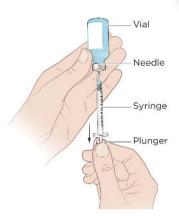
- Wash your hands before starting.
- Check each insulin bottle to make sure it is not expired.
  - The insulin should not have any clumps.
- Check the insulin bottle label to be sure you have the right insulins.
  - Intermediate-acting insulin is cloudy. Roll it gently between your hands to mix it. Never shake the bottle because the insulin is fragile.
  - Clear insulin does not need to be mixed.
- If the vial has a plastic cover, take it off. Wipe the rubber top of the bottle with an alcohol swab. Let it dry. Do not blow on it.



- Your doctor will tell you how much of each insulin you will need. Add these two numbers together.
   This is the total amount of insulin you should have in the syringe before injecting it.
- Remove the cap from the syringe.
- Pull back the plunger until its black tip is even with the line showing the dose of cloudy insulin you need.
- Push the needle through the rubber top of the cloudy insulin bottle. Push the plunger so air goes into the bottle. Pull the needle out of the bottle.
- Put the air in the clear insulin bottle the same way.
- Keep the needle in the clear insulin bottle and turn the bottle upside down.
- Check that the tip of the needle is in the liquid.



Slowly pull back on the plunger to get the right dose of clear insulin into the syringe.



 Check the syringe for air bubbles. If you see bubbles, hold both the bottle and syringe in one hand, and tap the syringe with your other hand. The bubbles will float to the top. Push the bubbles back into the insulin bottle, then pull back on the plunger again to get the right dose.



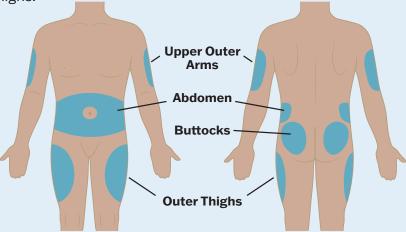
- Take the syringe out of the bottle. Look at it again to make sure you have the right dose.
- Push the needle into the rubber top of the cloudy insulin bottle.
- Turn the bottle upside down. Slowly pull back on the plunger to exactly the right dose of cloudy insulin. Do not draw extra insulin in the syringe.
- Remove the needle from the bottle.
- Make sure you have the right total dose of insulin.
  Put the syringe down carefully so the needle does not touch anything.

### HOW TO GIVE A SHOT

#### Choosing where on your body to put the shot

There are many places on the body where you can give yourself insulin. Most people choose the abdomen (belly). This is because it is easy to reach the fatty tissue. You can also use the back of the upper arms, the upper

buttocks, and the outer thighs.



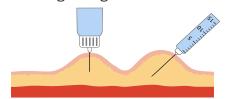
#### Giving a shot

- Keep shots 1 inch away from scars and your bellybutton.
- Do not put a shot in a spot that is:
  - bruised
- tender
- firm

- swollen
- lumpy
- numb
- Make sure your injection site is clean and dry.
- Pinch the skin gently to create space for the injection if your needle is longer than 6mm.



- Push the needle into your skin at a 90° angle (straight up and down).
- You may need to inject the needle at a 45-degree angle if:
  - you have very little fat on your body
  - you are using a longer needle



• Push the needle all the way into the skin. Push the plunger until the insulin is all in.



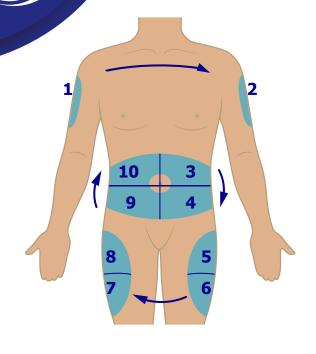
- Pull the needle out at the same angle it went in.
- If insulin leaks from your injection site, contact your diabetes team and watch your blood sugars closely.
- Put the used needle and syringe in a hard container with a tight lid. Keep it safely away from kids and animals. Never reuse needles or syringes.



 Injecting insulin usually does not hurt. If you hit a skin nerve it may hurt a little. You may also see a little bruising. This is all normal and is nothing to worry about.







#### What does "site rotation" mean?

Changing the place on your body that you give your shots is called site rotation. When you rotate sites you follow a regular pattern as you move your shots from place to place.

#### Why should I rotate the site on my body?

It is important to rotate the injection site on your body to make sure you are giving your shot into healthy skin. If you always give shots in the same place, it can cause lumps of fat or scar tissue to grow under the skin. Any type of insulin shot can cause lumps and scarring. It does not matter if you use a pen, a vial and syringe, or an insulin pump. These lumps and scars make it harder for the body to absorb insulin and can make blood sugars harder to manage.

## How often should I rotate the site on my body?

The shots can be given close to each other but each dose must rotate. It helps to have a pattern of where to give the shots so you remember to rotate. For example:

- In the mornings give insulin in the arms.
- At lunch give it in the legs.
- At dinner give it in the abdomen

Another idea for rotating is to use one area at a time. For instance:

- Use the right arm for 3-4 days
- Then use the left arm for 3-4 days
- Then the right side of the abdomen for a week
- Then use the left side of the abdomen for a week and so on.

Using a site rotation pattern like this will help make sure that each area has plenty of rest before you use it again. This will help keep your skin healthy so you can absorb insulin better.