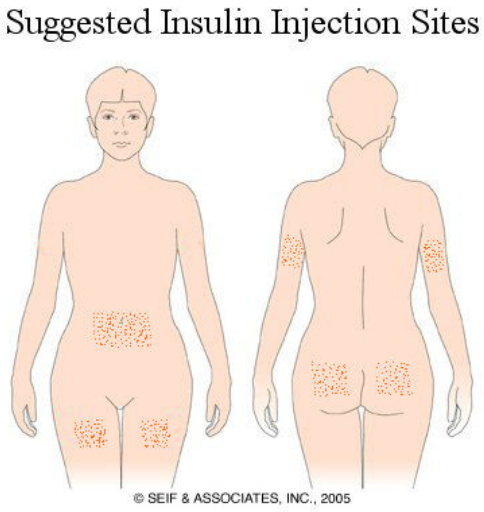
Insulin Injections, How & Where to Give, Adult

People with type 1 diabetes **must** take insulin since their body does not make it. People with type 2 diabetes **may require** insulin. There are many different types of insulin. The type of insulin you take will determine how many injections you will take and when to take the injections.



CHOOSING A SITE FOR INJECTION:

There are four main sites that can be used for injecting. Insulin absorption varies from site to site. It is best if you rotate within a body region and do not give the insulin in the same area for each injection.

- Abdomen. This is the preferred site.
- Front and upper outer sides of thighs.
- Back of upper arm.
- Buttocks.

USING SYRINGE AND VIAL:

Drawing up insulin: single dose

1. Wash your hands.
2. If insulin is cloudy, roll the bottle (*vial*) between your hands or rotate the bottle from top to bottom to mix.
3. Clean the top of bottle with an alcohol swab. Be sure that the plastic pop-top lid has been removed on new bottles.
4. Pull air into the syringe equal to the amount of insulin dose you need.
5. Stick the syringe needle into the insulin bottle.
6. Inject the air into the bottle. Leave the bottle upright.
7. Leave the needle in the bottle and turn the bottle and syringe upside down.
8. Pull down slowly on the plunger, drawing insulin into the syringe. You may need to push the plunger up and down 2-3 times to slowly rid the syringe of air bubbles.
9. Draw up insulin into the syringe to the number of units desired.
10. Remove the needle/syringe from the bottle.
11. Use alcohol to clean the area of the body to be injected.
12. Pinch a fold of skin and inject the needle at a 90-degree angle (straight in). The needle may need to be injected at a 45-degree angle in small adults with little fat.
13. Push the plunger down to push the insulin into the fat/tissue.
14. Take the needle out of the tissue.
15. Discard the used syringe properly.

Drawing up insulin: mixed dose

1. Wash your hands.
2. Roll the bottle (*vial*) of “cloudy” insulin between your hands or rotate the bottle from top to bottom to mix.
3. Clean the top of both bottles with an alcohol swab. Be sure that the plastic pop-top lid has been removed on new bottles.
4. Pull air into the syringe to equal the dose of “cloudy” insulin.
5. Stick the needle into the “cloudy” insulin bottle and inject the air. Be sure to keep the bottle upright.
6. Take the needle out of the “cloudy” bottle.
7. Pull air into the syringe to equal the dose of “clear” insulin.
8. Stick the needle into the “clear” insulin bottle and inject the air.
9. Leave the needle in the “clear” bottle and turn the bottle upside down.
10. Pull down on the plunger and slowly draw into the syringe the number of units of “clear” insulin desired.
11. You may have to push the plunger up and down 2-3 times to rid the syringe of air bubbles.

12. Take the needle out of the “clear” insulin bottle.
13. Stick the needle into the “cloudy” bottle. **DO NOT** inject any of the “clear” insulin into the “cloudy” bottle.
14. Turn the “cloudy” bottle upside down and pull the plunger down to the number of units that equals the TOTAL number of units of “clear” and “cloudy” insulins.
15. Remove the needles from the “cloudy” bottle.
16. Use alcohol to clean the area of the body to be injected.
17. Pinch a fold of skin and inject the needle at a 90-degree angle (straight in). The needle may need to be injected at a 45-degree angle in small adults with little fat.
19. Push the plunger down to push the insulin into the fat/tissue.
20. Take the needle out of the fat/tissue.
21. Discard the used syringe properly.

USING INSULIN PENS

1. Wash your hands.
2. If you are using the “cloudy” insulin, roll the pen between your palms several times or rotate the pen top to bottom several times.
3. Remove the insulin pen cap.
4. Clean the rubber stopper of the cartridge with an alcohol swab.
5. Remove the protective paper tab from the disposable needle.
6. Screw the needle onto the pen.
7. Remove the outer plastic needle cover.
8. Remove the inner plastic needle cover.
9. Perform “air-shot”-turn the dial to two units. Hold the pen pointing up and push the button (*dial*) until a drop of insulin appears at the needle tip. If no insulin appears, repeat this step.
10. Dial the number of units of insulin you will inject.
11. Use alcohol to clean the area of the body to be injected.
12. Pinch a fold of skin and inject the needle at a 90-degree angle (straight in).
13. Push the button (*dial*) down to push the insulin into the fat/tissue.
14. Count to 5-10 slowly. Then, remove needle from fat/tissue.
15. Replace outer plastic needle cover over the needle and unscrew the capped needle.
16. Discard the used needle properly.

SEEK MEDICAL CARE IF:

- You are having problems keeping your blood sugar at target range.
- You are having episodes of low blood glucose (*hypoglycemia*).
- You feel you might be having side effects from your medicines.
- You have symptoms of an illness that are not improving after 3-4 days.
- You have a sore or wound that is not healing.
- You notice a change in vision or a new problem with your vision.
- You develop a fever of more than 100.5° F (38.1° C).

Document Released: 03/16/2010 Document Re-Released: 12/06/2010
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