

### Postinjection patient teaching

Advise the patient not to wear tight-fitting clothing over the injection site. Constricting the injection site may cause irritation or force the drug into subcutaneous tissue.

Have the patient promptly report any swelling, irritation, or other problems at the injection site.

If the patient is to get additional injections at home, be sure the person who'll be administering the drug can perform the Z-track method correctly.

#### TAKE NOTE!

Never inject more than 5 mL of medication into a single site using the Z-track method. Alternate sites for subsequent injections.



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## Z-track injections

Any time you have to give an intramuscular (I.M.) injection, you should use the Z-track method. Why? It's pretty simple: The Z-track is a better injection technique. It's been shown to reduce leakage of medication through subcutaneous tissue and decrease skin lesions at the injection site. Plus, it doesn't hurt patients quite as much as a regular I.M. injection.

When using the Z-track method, you displace the tissue before you insert the needle. Once the needle's withdrawn, the tissue's restored to its normal position. This traps the drug inside the muscle and prevents any leakage. The benefit: The patient gets the full dose of medication.

### How to do it

Follow these steps when administering a drug I.M. using the Z-track method:

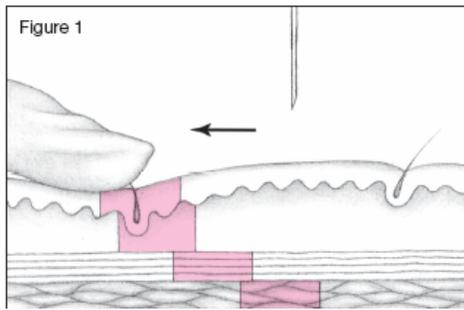
- Verify the drug order on the patient's chart.
- Wash your hands.
- Reconstitute the drug as needed. Check the drug's color, clarity, and expiration date.
- Draw the correct amount of drug into the syringe using aseptic technique.
- After drawing up the dose, replace the original needle with a

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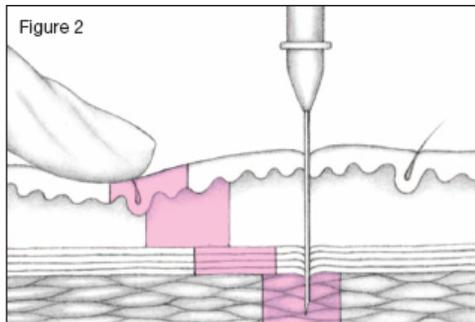
Source: "Peak Technique: Are you on track with Z-track injections?" *Nursing made Incredibly Easy!*, January/February 2005.

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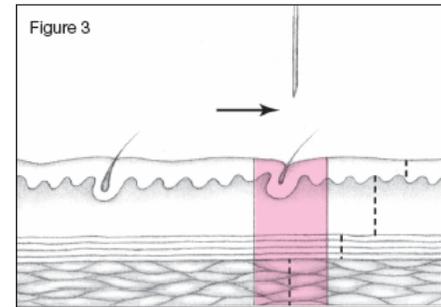
- sterile needle of the appropriate length for the patient's size.
- Put on gloves.
- Confirm the patient's identity using two identifiers.
- Select an injection site: the ventrogluteal or deltoid site in adults, the vastus lateralis site in infants and toddlers, and the vastus lateralis or deltoid site in children.
- Position the patient so that the muscle at the injection site relaxes.
- Clean the site with an alcohol pad and let it thoroughly dry.
- Use your nondominant hand to pull the skin downward or laterally to displace the tissue about 1 inch (2.54 cm) (see Figure 1).



- With the needle at a 90-degree angle to the site, pierce the skin using a smooth, steady motion (see Figure 2).



- Aspirate for 5 to 10 seconds to ensure that you haven't hit a blood vessel.
- Inject the drug slowly at a rate of 10 seconds/mL of medication.
- Once the drug is completely instilled, wait 10 seconds before withdrawing the needle.
- Withdraw the needle with a smooth, steady motion and release the skin to its original position. (In the illustration, the dotted line represents the needle track.) Use dry gauze to apply very gentle pressure to the puncture site (see Figure 3).



- Never massage a Z-track injection site. This may cause irritation or force the drug into subcutaneous tissue.
- Assess the site immediately after administering the injection and again 2 to 4 hours later.
- Properly dispose of all used equipment and supplies.