Intramuscular (IM) Injections

The medicine prescribed for your child must be given into a muscle. This is called an intramuscular (IM) injection.

Helpful Hints

- Let the medicine reach room temperature.
- Prepare the injection before approaching your child.
- You can apply an ice pack to the site for a few minutes to numb the area. Your child’s health care provider may order a numbing medicine.
- You may need a second person to hold your child while you give the injection.
- Approach your child in a calm, but firm manner.
- If your child is old enough to understand, explain why he needs the injection. You may need to explain this every time you give the injection.
- Distract your child with a toy, a movie, a book, by squeezing a hand or an object, by sucking on a pacifier, or any way that may be helpful.
- Your child may not adjust to receiving the injection.
- Explain to your child that it is okay to cry, but he must be still.
- Keep muscles in the injection area relaxed.
- Comfort and praise your child after you give the injection.
Supplies

- Ice pack (to numb the area) or numbing medicine (if ordered)
- Safe, clean work area to prepare the injection
- Alcohol swabs
- Cotton balls or gauze
- Band-Aid if your child wants one
- Hard plastic container for disposal of used syringes
- Disposable syringes with needles
- Medicine
- Each drug company and pharmacy may have their own way of mixing this medicine. Even if your child’s **dose** does not change, the **amount** you need to draw up into the syringe may change. It depends on the way it was mixed. Each time you fill or refill a prescription, have the pharmacist show you exactly how much medicine to draw up into your child’s syringe.
- **Caution:** Keep medicine, syringes, and supplies out of the reach of children.

Preparing the Injection

1. Wash and dry your hands.

2. Read the label on the bottle each time you prepare the medicine. Check the label for:
   - Your child’s name
   - Name of the medicine
   - Dose
   - Amount of medicine in the syringe (volume)
   - Expiration date
   - Storage instructions
Positioning Tip:
Your child may lie on his back or sit on an adult’s lap.

Flexing the knee relaxes the muscle.

Figure 1 – Vastus Lateralis – Outer Thigh

Positioning Tip:
Your child may lie on his side with his knee bent and his leg brought forward.

Figure 2 – Ventrogluteal - Hip
Positioning Tips:

Your child may sit or be held on an adult’s lap.

Placing the hand on the hip relaxes the muscle.

Administration Tip:

Aspiration is necessary only when using this injection site. Described in Step 9.
3. Remove the plastic cap on the medicine vial.

- Wipe the top of the rubber stopper with alcohol and let it dry completely.

- Remove the cover from the needle. Place the cover on the workspace. You will need it later. Do not touch any part of the needle.

- Pull back the plunger and pull air into the syringe equal to the amount of medicine you are going to give.

- Hold the syringe like a dart and push the needle through the top of the bottle. Push on the plunger to send the air into the bottle. This will make it easier to get the medicine out.

- Hold the syringe in place and turn the bottle upside down so the bottle is now on top.

- Keep the tip of the needle in the medicine. Pull back slowly on the plunger to pull the medicine into the syringe. You may pull in extra medicine (past your volume). This will allow you to remove air from the syringe.

- If you see air bubbles, gently tap the syringe. The air will rise to the top of the syringe. Slowly push the plunger so the air goes back into the bottle. Check to see that you have the correct amount of medicine in the syringe.

- Put the bottle in the down position and remove the needle from the bottle. Do not let it touch anything. It needs to be germ-free (sterile). Place the needle cap over the needle.
4. Choose an injection site. Your health care provider may ask that you only use one site.
   - The outer thigh (Figure 1) may be used for children of all ages.
   - The hip (Figure 2) may be used for children over 7 months of age.
   - The upper arm (Figure 3) may be used for children over 1 year of age if there is enough muscle. Ask your health care provider.
   - The buttock (Figure 4) should not be used unless you have been told to do so by your healthcare provider. If using this site, you will need to aspirate prior to administering medication, explained in Step 9.

5. Clean the skin where the injection is to be given with alcohol. Allow the skin to completely dry.

6. Remove the needle cap. Hold the syringe like a dart or a pencil.

7. Giving the injection.
   - Grasp the muscle firmly between your thumb and other fingers to stabilize the muscle. If your child is obese, firmly stretch the skin with your thumb and index finger and grasp the muscle deeply on each side. If you child is very thin, pinch up the fat and muscle.
   - Another way to give an IM injection is by using the Z-track method. Before inserting the needle, push the skin over the muscle down and pull the skin off to the side. Insert the needle into the muscle as described in Step 8. This method prevents the leakage of medication out of the muscle and may be less painful.

8. Hold the needle at a 75-90° angle (straight up and down) to the skin. Insert needle quickly and smoothly.
   - If using Dorso Gluteal Site (Figure 4) follow Step 9 to perform aspiration, if using any other injection site skip to Step 10.

9. While the needle is in the muscle, hold the syringe with one hand. With your other hand, pull back on the plunger for a few seconds to see if blood appears. If no blood appears, move to Step 10. If blood appears, remove the needle and syringe. Hold a cotton ball or gauze over the site for a few seconds. Begin again with a clean syringe and needle and inject the medicine into a different site.

10. If no blood appears, inject the medicine slowly into the muscle by pushing the plunger all the way down into the syringe. (About 10 seconds per ml of medicine.)
11. Remove the needle quickly. Hold a dry cotton ball or gauze over the site until any bleeding has stopped. **Do not** rub the site. Rubbing could make the medicine leak out.

12. Cover the site with a Band-Aid if your child wants one.

13. **Do not** recap the needle. Dispose of needles and syringes right away in a puncture-resistant hard container such as an empty detergent or bleach bottle, or official “sharps” container. You will need to find out what services are available in your area to dispose of the container.
   - Your healthcare provider, pharmacist, local health department, township office and your State Department of Environmental Protection can give you more information.
   - [www.safeneedledisposal.org](http://www.safeneedledisposal.org)

**Helpful Tips**

- Make sure you have enough medicine and supplies.
- Plan for weekends and vacations.
- Renew prescription before his supply runs out.
- When you renew the prescription, always read the label.