

# How to Mix Powder Medication with Sterile Water



**Medication Name:** \_\_\_\_\_

Before you begin:

1. Wash your hands with soap and water for 30 seconds. Dry them well with a clean paper towel.
2. Clean your work surface using antibacterial wipes, vinegar, soap and water or alcohol pads. Let it air dry.
  - a. We recommend using a non-porous work surface (example: new plastic cutting board or metal tray)
3. Gather the supplies you need and place them on a clean surface.
  - Powder medication vial (bottle)
  - Sterile water vial (bottle)
  - Cotton ball or gauze
  - Tape or bandage
  - Needles (if syringe does not have needle attached)
  - Syringe
  - Sharps container
  - Alcohol prep pads (2)

**Syringe and needle size may vary. Ask your health care provider or pharmacist if you have questions.**

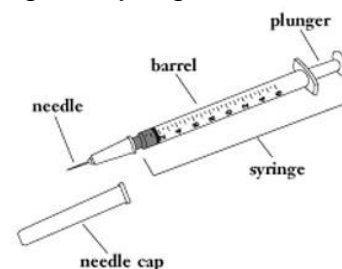
## Step 1: Prepare vials for mixing

- Take the cap off the powder medication vial. Do not remove the grey stopper.
- Wipe the top of the vial with an alcohol prep pad for 20 seconds and allow to dry for 10 seconds.
- Then, take the cap off the sterile water vial.
- Wipe the top of the sterile water vial with a new alcohol prep pad for 20 seconds and allow to dry for 10 seconds.

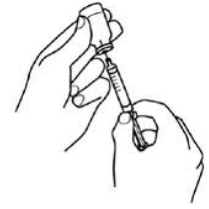


## Step 2: Remove the sterile water from the vial

- Using a syringe, pull back the plunger to the \_\_\_\_ mL line. You are filling the syringe with air.
- Take the cap off the needle. DO NOT TOUCH THE NEEDLE.
- With the sterile water vial placed firmly on a flat surface, push the needle straight into the rubber top into the sterile water vial. DO NOT touch the rubber top with your fingers. Push the plunger all the way down to push all the air into the bottle.



- Keep your thumb on the plunger with one hand and with the other hand turn the vial upside down (the needle will be pointing up).
- Make sure the tip of the needle stays in the liquid (sterile water). Pull back the plunger to the \_\_\_\_ mL line on the syringe.
- Tap on the syringe with your finger to move any air bubbles to the top. Push on the plunger to force any air bubbles back into the vial.
- When all of the air bubbles are out, keep the needle in the liquid and pull back the plunger again to fill the syringe to the \_\_\_\_mL line. (this should be the amount of sterile water you will be mixing with your powder medication)
- Remove the needle from vial.



### **Step 3: Mix sterile water with the powder medication vial**

- Insert the syringe and needle with the sterile water into the powder medication vial.
- Push all of the water into the vial.
- Remove the needle from the medication vial and gently swirl the vial. Do not shake. Do not touch the needle.

### **Step 4: Remove medication from the vial (See *How to Draw a Medication from a Vial* handout)**

- Insert the empty syringe with needle back into the medication vial.
  - If it is a subcutaneous (SQ) injection, be sure to use a syringe with a needle attached to draw the medication out of the vial.
  - If this is an intramuscular injection (IM), you may use the same syringe and needle to draw up the medication. You will need to change the needle before giving the injection.
- Keep your thumb on the plunger with one hand and with the other hand turn the vial upside down.
- Make sure the tip of the needle stays in the liquid.
- Pull back the plunger to the \_\_\_\_ mL line on the syringe (this should be the amount the doctor ordered for your child).
- Pull the needle out of the vial.
- There could be medication left in the vial depending on how much medication was ordered.

### **Step 5: Change the needle on the medication syringe (only if the syringe comes without a needle attached)**

- Before giving the injection (shot), change the needle. In most cases, you will use a smaller needle to give the injection.
- There should be \_\_\_\_ mL in the syringe before you give it.

### **Step 6: Prepare the injection site**

- Please see “*How to Give a Subcutaneous Injection (SQ)*” or “*How to Give a Intramuscular Injection (IM)*” handout for specific instructions on administration.

### **Step 7: Sharps and Medication Disposal**

- Place all needles and vials in a Sharps container, even if there is medication left in the vial.

### **Pharmacy/Patient Family Education**