

Poison Prevention Press

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Liquid Medicine Safety

- Not all liquid medicines are meant for children. There are some liquid medicines that are only meant for adults to take, and others meant for children.
- When measuring liquid medicine, it is important to use the correct sized dropper, oral syringe, dosing cup, or dosing spoon. Only use the dosing device that comes with the medicine and has the mL listed on it.
- Pay close attention to the mL dose (the amount you are supposed to use) on the label of the medicine. It is easy to read a dose of 0.8 mL as 8 mL and give 10 times the dose needed!

Save Poison Help, 1-800-222-1222, as a contact in your mobile phone.

Did you know that...

- Directions on some over-the-counter medicines for children are based on their weight?
- Therapeutic errors accounted for 19% of total exposures in 2022?

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Measuring Medicine Safely

Measuring medicine, also called dosing, can be confusing! Health care providers and pharmacists may use many different terms when talking about medicine. Sometimes medicines have more than one dosing unit on the label, which makes things even more confusing!

Dosing Units for Solid Medicines and Creams

Medicines can come in solid forms like tablets, capsules, lozenges, and gummies. They may need to be swallowed whole, allowed to dissolve in your mouth, or chewed. Some medicines can be split, crushed, or opened (like a capsule) and put on food, while some medicines should not. Let's review some commonly used dosing units for solid medicines and creams.

milligrams (mg)

Milligrams (mg) is a measurement of weight of how much medicine is in the tablet or capsule. There are 1,000 mg in 1 gram. Keep in mind that just because a medicine has a low mg number doesn't mean it doesn't work as well as a medicine with higher mg numbers. It just means it takes less of it to work!

micrograms (mcg)

Micrograms (mcg) are units smaller than milligrams. There are 1,000 mcg in 1 mg and 1 million mcg in 1 gram! Remember, just because a medicine is dosed in micrograms does not mean it is weak.

grams (gm)

Some medicines, but not many, are dosed in grams. This includes tablets and some gels or creams. Tablets measured in grams are usually pretty large. If your gel or cream is dosed in grams, there will be a card in the box with the cream to guide you in measuring the correct amount.

international units (IU)

There are a few medicines that are dosed in international units (IU). Some vitamins are the most common medicines that use IU for the dose. The IU is just another way to tell you how much medicine is in a dose.

Dosing Units for Liquid Medicines

Liquid medicines are put into two categories - suspensions or solutions. Solutions look clear but can have a color to them. Suspensions may be thick and may have specks of medicine you can see in them. Suspensions should be shaken well before a dose is measured to be given. Liquid medicines are dosed based on the amount of medicine needed and the amount of the liquid you need to give to get that dose. Let's review some commonly used dosing units for liquid medicines.

milliliters (mL)

A milliliter, mL, is a unit used to measure the amount of liquid, also known as volume, of medicines. It is really important to read the medicine label carefully because there will often be mg, mcg, or IU (the weight/amount of the medicine) and mL (the amount of liquid) on the label to tell you what dose to use.

teaspoon (tsp)

Sometimes you will hear a medicine dose is a teaspoon (tsp) or teaspoonful. A teaspoon is the same as 5 mL so if you were told to give a teaspoonful, you can use an oral syringe, medicine cup, or medicine spoon to measure the dose. **Do not use household spoons, including measuring spoons, to measure medicine, they will not measure the right amount.**

tablespoon (tbsp)

Medicines may also be dosed in tablespoon (tbsp) or tablespoonful. There are 3 teaspoons in 1 tablespoon, so each tablespoonful has 15 mL in it. **As with teaspoons, do not use household spoons to measure medicine.**

If you do not understand how to give or take a medicine for yourself or a loved one, you should talk to your doctor, nurse, or pharmacist to make sure you understand. If you have made a medicine mistake, call the Maryland Poison Center at 1-800-222-1222, available 24/7.