

Piercing the vial with a boba straw needle

Although many guides recommend it, these recommendations originally derive from research conducted in healthcare settings, where clinicians administer several injections per day to different patients.

In those settings, medication vials get used up very quickly and it makes sense to use a large needle to prioritize drawing speed. But for trans people who use one vial for a span of months or even years, we need to take better care of our vial stoppers than that! A busted stopper compromises your vial's ability to stay sterile.

Studies of how many punctures a vial can withstand have found that needles of 23G or smaller cause much less damage than larger needles.²

Remember: bigger gauge (G) = smaller needle!



Sterilizing your sterile needles

Yes, Trace Lysette did it in the movie Monica. That doesn't mean it's a good idea!

Needles are sterile out of the package.

As long as the packaging hasn't been damaged, you're good to go as soon as you unwrap it. Swabbing the needle with something only introduces more potential contaminants to both your vial and your body!



For insulin needles that come in multiple per bag, a bright orange cap should be covering the needle and plunger. These keep them sterile too!



Misreading the markings on your syringe barrel

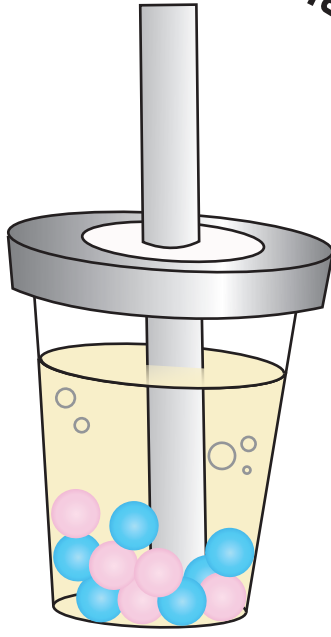
Make sure to read the units on your syringe barrel carefully. The dose is measured from the top of the plunger.

0.125 mL - the plunger is between 0.12 and 0.13

For people who inject 0.1 mL or less, insulin syringes come in 0.5 mL and 0.3 mL sizes and can be used for subcutaneous injection. It's easier and more accurate to use these smaller syringes for small doses.

Insulin syringe markings measure **insulin units**. 1 mL = whatever the **U number** is. For instance: On a U-100 syringe, 100 units = 1 mL, so 10 units = 0.1 mL. On a U-40 syringe, 40 units = 1 mL, so 10 units = 0.25 mL.

Top 6 Injection Mistakes



(and how to avoid them)

Tossing out your dose when swapping needles

Detachable needles and syringes always have some space that the plunger can't fully push liquid out of, called **deadspace**.

Highest dead space	Lowest dead space
Standard syringe	Standard syringe
Modified syringe	Modified syringe
Standard detachable needle	Standard detachable needle
Fixed needle	Fixed needle
Insulin/U-100	Insulin/U-100
Low dead space syringe	Low dead space syringe
High dead space syringe	High dead space syringe

US-based needle suppliers

medlabgear.com
allegromedical.com
shopmedvet.com
westendmedicalsupply.com
medical-and-lab-supplies.com

needle info + how-to videos

<https://support.getplume.co/support/solutions/articles/72000544742-all-about-injections> *

*note that this guide makes the bad recommendation of using 18G needles to draw! ignore that- it will core your vial. otherwise it's a great resource.

citations and useful info

- <https://foodmicrobe-basic.com/ethanol-sterilization-and-its-mechanism/>
- <https://doi.org/10.1331.JAPhA.2013.12064>

Find local needle exchanges in the US: nasen.org

harmreduction.org

Needle disposal information by US state: safeneedledisposal.org

When swapping needles, make sure to draw in air before removing the drawing needle so you don't lose your dose to the needle deadspace! It's also possible to use air to flush out deadspace after injecting, a technique called airlocking.