

*please note: links contained in this post and elsewhere on my website may include affiliate links. When you make a purchase through these links, I may earn a commission at no additional cost to you. I only link to products and services that I love - and that I think you will love, too!*



Herbal extracts can be made with either alcohol or glycerin. Home herbalists often have lots of questions about the difference between these two types of herbal extracts. So what's the difference? Why choose one over the other? Which one is stronger? Is alcohol better than glycerin for making herbal extracts?

Actually, these are just two of several choices when it comes to extracting liquids for making herbal preparations. Known as menstrums, these liquids can include water, alcohol, glycerin, vinegar, or even wine- and any combination thereof!

You can (and should) experiment with some of these different liquids just to get a feel for the diversity of preparations that can be made. It's fun, it's interesting, and it's a good way to learn more about the chemistry that's going on behind the scenes when you make herbal extracts. Alcohol and glycerin extracts, though, are by far the most commonly used. Let's investigate further!

## Glycerin

What is glycerin, anyway? It's a clear, thick, liquid with a sweet taste. It's made by breaking down fat or oil (like lard or vegetable oil). It's a byproduct of soap making, too. If you want to use glycerin, make sure it's labeled food grade.

Everyone typically thinks of glycerin as a very different substance than ethanol, and in some ways it is. You can look at it or taste it and see that for yourself. But technically, for chemistry purposes, it's an alcohol. Whoa, crazy, right? It's also known as glycerol or glyceric alcohol. Even though it's sweet tasting, it doesn't contain sugar and won't raise blood sugar levels and it's popular for individuals who need an ethanol free alternative.

Let's look at the basics of glycerin in a few bullet points.

- Less extractive ability than ethanol
- Weaker isn't necessarily a drawback (may be better for children or elderly)
- Less range as a solvent than ethanol
- Not as much preservative power as ethanol
- More palatable than ethanol – tastes sweet
- Doesn't dissolve or mix with resins
- Stable when heated
- Often used when an "alcohol free" option is needed (although teas are stronger)
- Not very good at extracting most alkaloids

Even though glycerin is a popular choice (especially when making herbal extracts for children), it leaves a bit to be desired when compared to alcohol extracts. It doesn't pull out as many different types of constituents as alcohol. Constituents are the chemical building blocks that make an herb useful, so having a well-rounded profile of constituents is usually a good thing. It makes a weaker preparation, and the shelf life is much shorter (usually not more than a year, if that).

One excellent thing about glycerin is that it's really good at extracting tannins. This is useful if you are honing your advanced formulation skills. Alkaloid and tannins neutralize each other when both are present in a formula. Add glycerin as part of the menstruum and it acts as a buffer to keep that from happening.



## Alcohol

So, technically, the alcohol we are talking about here is ethanol aka ethyl alcohol. That's the drinkable kind that's in vodka, wine, beer, etc. When you make an herbal extract you are using a combination of ethanol and water.

Don't try to make herbal extracts with rubbing alcohol (isopropyl alcohol)- rubbing alcohol is toxic. You can use isopropyl alcohol for liniments that are applied topically. Just be sure to clearly label them for external use only.

Vodka is a common extracting menstruum for herbalists to use because it's cheap and readily available. 80 proof vodka is 40% ethanol, 100 proof is 50%. Sometimes higher proof spirits are used and diluted down to different ratios, but you need at least 20% ethanol to preserve your extract. Interesting fact: a 50/50 mixture of pure ethanol and water is known as dilute alcohol for chemistry purposes. Here are a few bullet points for alcohol extracts:

- Good general solvent- extracts most things
- Not good at extracting resins and mucilage by itself
- Preserves preparations almost indefinitely
- Inactivates enzymes that would cause the extract to change over time
- Helps control chemical decomposition
- Mixes well with water and/or glycerin
- Not heat stable. Flammable, so store carefully.

Ethanol, by itself, is a good general solvent and extracts most things. It's not very good at extracting minerals, gums, or mucilage ("gooey" herbs like marshmallow root or slippery elm). However, herbal extracts aren't made with pure ethanol, so water takes up some of the slack and makes ethanol based extracts the winner when it comes to strength, range of constituents, and preservative prowess.

## Alcohol vs Glycerin

When it comes down to it, ethanol based extracts come out the winner here. In terms of health consequences of glycerin vs alcohol, unless you need to avoid ingesting all alcohol, period, there's not much of a case for being worried about the amount of ethanol found in an herbal extract. Ethanol is naturally found in ripe fruit, so our bodies are used to dealing with a little ethanol on a regular basis.

According to The Herbal Medicine Maker's Handbook, 20 drops of an herbal extract (60% ethanol) 3 times a day is less than 1/30th of an ounce of alcohol, so you really aren't consuming very much at all. If you like using glycerin extracts and they work well for you, then hey- rock on. But if you are looking for higher potency and better shelf life, stick with alcohol.

## Resources and Further Reading

Are you interested in learning more about the chemistry behind herbalism and the art of making herbal extracts? I highly recommend getting a few good books on the subject! My three favorites (and the ones I used to double check my info when I wrote this article) are The Herbal Medicine Maker's Handbook by James Green; A Clinical Guide to Blending Liquid Herbs by Kerry Bone; and Medical Herbalism: The Science and Practice of Herbal Medicine by David Hoffman.