

# Making Tinctures (Herbal Extracts)

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*Warning: The information presented here is not intended to cure, treat or prevent any disease or provide medical advice. Before using any herbal products please consult with your healthcare provider. Be aware that herbal medicine can be dangerous if used incorrectly. Educate yourself, use this guide in conjunction with an herbal reference book (materia medica), and never use any herb you cannot positively identify. If you experience any adverse reactions to an herbal product consult a medical professional immediately.*

## What are Tinctures?

A tincture is a medicinal extract of an herb taken as medicine. Generally, the term tincture means an extract made with alcohol, however it is often used to indicate any kind of extract. Extracts made for flavoring rather than medicine can be made in the same manner, but their uses often overlap. Tinctures and liniments can be made in the same way as well, though a liniment is for external use only and is usually made with ingredients that are unsafe for consumption. Tinctures can be used externally or internally. Additionally, herbs can be infused in oil or water. These are not considered extracts, but infusions, and will not be covered here. If you are new to medicine making I suggest you begin by reading through the glossary of useful terms at the end of this text.

## Required Equipment:

Before you begin, you will need to make sure you have the required equipment. The equipment needed will depend on the method in which you choose to make extracts. The equipment for all methods described in this text are provided in this list.

Mason jars or other glass containers large enough to hold all ingredients

Cheese cloth, butter muslin or clean flour sack towels

Ethel alcohol, neutral spirits such as high proof vodka or everclear

Distilled water

Herbal material you wish to infuse (dried or fresh)

Small funnel

Percolating apparatus – this will be discussed in the percolation section

Coffee filters

Pie weights

Colored glass bottles with droppers for storage (amber or cobalt)



*Figure 1: Various sizes of amber glass bottles with dropper tops*

A reference materia medica text for recommended usage and dosage information

Large mixing bowl

Graduated cylinders or precise liquid measuring cups (with metric markings)

A kitchen scale

Knife and cutting board

Mortar and pestle

Rubber or latex gloves

### Optional but helpful equipment:

A tincture press

An herb grinder or coffee grinder



Figure 3: Herb grinder



Figure 2: Graduated cylinder

## Doing the Math

There are several ways to approach making a tincture, the simplest of which requires very little math. If you can estimate fractions, you are well on your way. We call this the folk method. However, if you wish to be more precise in your medicine making technique, it is helpful to know exactly how much of each ingredient is in the finished product. You will want to know both the ratio of mark to menstruum and the percentage of alcohol used to know how strong the medicine is, and what the best dosage is.

In order to determine the ratio, you need to know how much mark (dry herb material) you are using in comparison to menstruum (liquid). Most commercial tinctures sold at health food stores are a 1:1 ratio, that is, one-part herbal material to one-part liquid; a very strong tincture. However, this concentrated ratio is almost impossible to accomplish with home equipment. You'll end up with a lot of waste and very little finished product if you try. I usually make a 1:3, though other herbalists frequently use a

1:5 ratio. Ratios are measured using the metric system because the math is easier and standard across all cultures.

To determine the ratio, you measure your mark on a kitchen scale in grams. Make sure to use the “tare” button to zero out the weight of the vessel holding the mark. Once you have determined the weight of the mark you wish to extract, you want to determine in milliliters the quantity of menstruum. For example, if I wish to make a 1:5 ratio extract of cayenne, I would measure out 100g of dry cayenne that is by base 1 part of mark. Then multiply 100g by 5 to equal 500mls of menstruum resulting in a 1:5 ratio.

The next step is to determine the make-up of your menstruum. I prefer to use a minimum of 50% alcohol to properly preserve and extract the mark, but occasionally a higher alcohol percentage might be preferred. I recommend a good materia medica like the free one available at <http://www.swsbm.com/ManualsMM/MatMed5.pdf> to help determine ratios and alcohol percentage requirements for best extraction and preservation.

If you are beginning with a pure ethyl alcohol the math is easy. You need to add equal parts alcohol and distilled water to reach 50%. Just divide the amount you came up with in the last equation for your quantity of mark in half and measure out the water and alcohol to combine. For example, if I need 500mls of menstruum. I'd divide that by two giving me 250mls of water and 250mls of alcohol. Pure ethyl alcohol can be hard to come by however, so most herbalists use already diluted high proof vodka, or everclear which is typically 95% alcohol and dilute it. Alcohol is labeled by proof, which is double percentage. Look for a 100-proof vodka this is 50%. If using everclear, dilute to 50%. By adding 45% water to equal 50% alcohol.

Note: Any kind of alcohol that is safe to drink will work. Historically herbalists used fortified wine, sherry, brandy or whatever was available. I choose to use neutral spirits so that only the flavor and medicinal actions of the plant I am choosing to tincture come through. Feel free to experiment.

Graduated cylinders are very helpful for making precise measurements, and I highly recommend buying a few if you plan on making tinctures frequently. However, liquid measuring cups can work just fine.

Note: As mentioned above, many herbalists prefer to use a folk method to make their tinctures and do not measure or weigh anything. The standard method is to fill a jar  $\frac{3}{4}$  full with the mark, and then top up with the menstruum. This is a personal choice, and medicine made this way can still be effective. After doing a few you might find your own preferred way of measuring, but I recommend starting with measuring as explained above.

## Maceration

Alright, we can finally begin making a tincture! The easiest method is maceration. This means that we'll soak the mark in the menstruum for a long time to extract the flavor or medicinal properties of the material.

**Step 1:** First, measure out your ingredients as described above. If you are using fresh plant material, chop it finely with a knife and lightly crush to release essential oils and increase surface area for the best extraction. I recommend increasing the alcohol percentage to 60% or higher for plants that contain a lot of water to help prevent mold. The natural water in the fresh plant material will be released into the final product adding additional water that might impede preservation.

**Step 2:** If using a dry mark, grind in an herb grinder, coffee grinder (that you keep specifically for grinding herbs, you don't want your mint extract to taste like coffee!) or with a mortar and pestle. The finer the grind the more surface area, resulting in a more complete extraction.

**Step 3:** Add both mark and menstruum to an airtight glass jar, shake and put in a dark place. Continue shaking the jar daily (or as often as you remember) for 4-6 weeks.

**Step 4:** After the tincture has turned a nice dark color, the next step is to strain the mark from the menstruum for the finished product. To do this, pour the tincture through a layer of clean butter muslin, flower sack cloth or several layers of cheesecloth into a glass bowl. Once all the liquid has drained through, wrap and lightly squeeze the additional liquid out of the mark until it is as dry as you can get it. *Tip: You can keep your hands from staining by using disposable gloves.*

If your tincture is not clear you can strain again through more cloth or a coffee filter until it is completely free from the mark. If you have a tincture press, you can extract more tincture from the mark than you might be able to with only your hands. These can be very helpful if you plan to make many tinctures but are not necessary.

**Step 5:** Discard the dry mark. It's great for composting, but no longer has any flavor or use, so as tempting as it may be, it is not worth adding to baths or tea any longer.

**Step 6 (optional):** It is a good idea to measure your resulting tincture to see how much was lost by absorbing into the mark. You can expect to lose approximately 30% volume. This means if you had started with 500mls of menstruum, you might only end



up with 335mls of finished tincture. Each plant will absorb a different amount of menstruum. Dry plants will naturally absorb more than fresh ones. A tincture press can help you to get more out of the mark, yielding less loss.

**Step 7:** Using a funnel, bottle and label in a dark glass bottle.

Note: a 1oz bottle holds approximately 30mls. If using a dropper top for easy dosage, 1 dropper full is approximately 1ml. Consult your materia medica for dosage guidelines.

## Percolating



*Figure 4: A homemade percolating apparatus*

Macerating takes a long time, and if you are in a hurry you can get similar results with a percolation. This method only takes 3 or 4 days on average making it convenient when you are in a rush. There are some limitations to this method, however. You must use a dry, evenly and finely ground mark. This is difficult to achieve if you only have a mortar and pestle. The method will not work for plant material that is mucilaginous or sticky like marshmallow root or gumweed for example. You do need specialized equipment which is easy to make.

To make a percolating apparatus you will need a glass bottle, with sloping sides and a screw top lid. You will also need a means to cut it. We will be cutting off the bottom to create a large glass funnel. This funnel will then rest in a wide mouth jar to allow the menstruum to drip through the tightly packed mark. See figures 4 and 5 .



*Figure 5: A glass bottle with the bottom cut off for creating a percolator*

**Step 1 and Step 2:** These steps are essentially the same as the maceration method above, but you need to make sure you use only dried plant material for your mark, and that it is evenly and finely ground.

**Step 3:** Lightly moisten the mark with some of the menstruum. This step is often called sand-castling because you are trying to achieve the consistency of wet sand. You want it to stick together, but not be goopy like mud. Seal the moistened mark in an airtight jar and let sit for 12 hours.

**Step 4:** The next day, cut a small circle of coffee filter to go into the bottom of your percolating apparatus and place it next to the tightly closed cap.

**Step 5:** Tightly pack the moistened mark into the percolating apparatus above the coffee filter making sure there are no air bubbles or gaps, this ensures that the menstruum will run through the mark evenly.

**Step 6:** Place another circle of coffee filter to fit over the top of the packed mark, and top with pie weights to keep in place.

**Step 7:** Gently pour remaining menstruum over the mark in the percolating apparatus. Cover and let sit for 12 more hours.

**Step 8:** Loosen the lid at the bottom of the percolator to allow the completed tincture to drip through.

Note: if the menstruum does not all fit in the top of the percolator, that is ok. Just wait and add the additional menstruum as the level lowers during step 8.

**Step 9:** Discard mark, bottle and label.

## Alternative Methods of Extraction

Extractions can be made in a number of different ways as well. The above methods are the most frequently used methods. If you prefer an alcohol-free tincture you can macerate in vinegar or glycerin. Extracts made for flavoring can be re-macerated by adding additional mark to the first tincture to gain a stronger flavor. Keep in mind the menstruum has a limited capacity to hold the extracts, and you cannot infinitely saturate the menstruum. At some point it will become fully saturated.

## Storage and Use

Now that you have successfully made a tincture, you'll need to store it. A tincture can last a very long time if stored properly. Some say many years, others say infinitely. If your tincture fades, becomes discolored or molds it has gone bad, and is no longer safe to use. Here are some tips for storage.

- There is no need to refrigerate a tincture, just keep it in a cool dark place like a pantry.
- Light is damaging to tinctures so amber or cobalt bottles are recommended for storage as the best way to keep light out.
- Never store tinctures in plastic as the alcohol can leach chemicals from the plastic, glass is recommended.

- *Always* label your tinctures! You might remember what you made a month from now, but you won't in a year, or if you end up making multiple different tinctures.
- Add clear packing tape around the entire bottle over the label to protect it from drips.



*Figure 6: Completed tinctures, labeled, bottled and ready to be stored*

Mint, almond or vanilla extracts can be added to many things. I urge you to experiment. Try adding them to baked goods, soda or cocktails. Add a few drops to your bath water or homemade lotions or soaps.

Consult a good materia medica for medicinal usage and dosage. Dosages are often in the range of 3-5mls, a very small amount. Tinctures are a very concentrated way of taking herbal supplements. I prefer adding the recommended dosage to a little bit of water to dilute and make it easier to swallow. Adding it to tea, juice or another beverage is an option that I don't usually recommend. It will only ruin the taste of your drink. Tinctures have strong flavors, and that is good, it lets us know that we have extracted the flavors and medicinal constituents from the plant that will make good medicine. Tinctures can be applied topically as liniments as well as taken internally.

## Glossary of Useful Terms

- Herbalist- someone who makes and uses herbal medicine
- Infusion- herbal material extracted in any liquid, including alcohol, water, oil or glycerin
- Liniment- an herbal extraction used topically. Typically made with rubbing alcohol and therefore, not safe for consumption
- Maceration- the process of soaking something in a liquid to extract the flavors or medicinal properties
- Mark- the solid plant material used to make herbal medicine
- Materia Medica- a book or list of herbs and their properties, uses, dosages or preparation methods
- Menstruum- the liquid used to extract the properties of herbal material
- Percolation- a process of extraction in which the menstruum runs through the mark
- Simple- an herbal medicine made from only one herb
- Simpler- someone who makes or uses simples
- Solvent- a substance used to dissolve and hold an extract
- Tincture- a liquid medicinal extract, usually made with alcohol as the solvent