

# Percolation

## A Quick Guide to Dry Herb Tinctures

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Wintergreen Botanicals, LLC

Maria Noël Groves, Clinical Herbalist

Allenstown, NH (Near Bear Brook State Park)  
603-340-5161, office@wintergreenbotanicals.com

www.WintergreenBotanicals.com

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**PLEASE READ:** *The information in this handout has not been approved by the FDA and does not in any way intend to diagnose or prescribe. Always consult with your health practitioner before taking any remedy.*

**Above this, I also recommend that you...**

1. *Research an herb in at least three good sources before ingesting it,*
2. *Take proper steps to ensure that any wildcrafted material is indeed the plant you think it is,*
3. *Check with your pharmacist for herb-drug interactions if you take prescriptions, AND*
4. *Listen to your body and/or intuition if an herb does not resonate or causes side effects.*

### The Percolation Method

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**The Basics:** Percolation method is similar to brewing coffee in a manual coffee cone. You place ground, pre-moistened herb into the percolation cone protected by a barrier of coffee filter on both sides. The cone rests into a glass where the finished tincture will collect. You gently pour your menstruum into the cone and allow it to drip through at a certain pace (similar to the “thousand one thousand two thousand three” pace for counting lightning storms). After a couple hours, your tincture is done. The hardest part is the math (see worksheet).

**Premoistening:** Using a little extra menstruum, you need to premoisten your herb the day before. It should have the consistency of good potting soil. Premoistening prevents the herb from expanding and clogging the percolation cone during percolation. It may also predigest some of the constituents to help the percolation work more effectively (like a stain stick on clothing before a wash). You need to premoisten at least 12-24 hours before you do the percolation. However, there’s little limit for how long it stays in this state (as long as it remains moist). It can wait extra days or weeks until you have the chance to do the percolation.

**Grinding the Herb:** I often cheat and buy pre-powdered herb for percolation. This has always seemed to work fine, but, as we know, unpowdered herbs are generally fresher. You can grind your dry herb in a blender, coffee grinder, magic bullet, or vita mix (in order of increasing strength) and then sift it through a fine wire mesh strainer to make a powder. It’s a pain, but it works great.

**Choosing Your Solvent:** For most dry herbs, 50% alcohol/50% water (basically, 100-proof vodka) works just fine. If you want to get more specific, you can cut whole grain alcohol with distilled water to your desired ratio. Solvency charts abound, and they never completely agree – see Michael Moore, Sharol Tilgner, or look at what Herb Pharm does. But 40-60% alcohol will do for most herbs. Higher percentage for resins and oils. Lower percentage for mucilaginous herbs. Some funny herbs like cinnamon like to precipitate out – add 10% glycerine to slow this down. Don’t stress over this – vodka usually works fine.

**Measuring:** Do your math and check it twice. Michael Moore recommends doing all dry herbs as a 1:5 extract. So, if you have one ounce (weight) of herb, your finished product should be 5 ounces (volume) of tincture. I find it easiest to measure backwards. If I want a pint of tincture, I start with about 3.5 ounces of dry herb. If I want a quart, I start with about 6 or 7 ounces. You will notice some extra measuring of the volume of the herb on the worksheet. This is to account for the amount of menstruum that will stay in the

herb as well as the amount needed to premoisten the herb. You can always experiment with this. Every herbalist has a different way of doing things, and almost all of their final products seem to work. Remember... “THIS ISN’T LAB SCIENCE, IT’S HERBOLOGY.” (Michael’s saying.)

**Packing & Pouring:** First, line the end of your cone with a piece of coffee filter to prevent the ground herb from just washing through. This is the hardest part of the whole percolation process (besides the math). GENTLY AND EVENLY pack your herb into the cone, using slightly lighter pressure, then medium pressure, and finally heavier pressure as you put the last amount of herb in. A tincture bottle bottom or small glass is good for packing it down. You’ll get the feel for this over time. Put another coffee filter over your herb to act as a membrane as the menstruum goes in. START WITH THE CAP OFF of your percolation cone, you will put it back on to regulate dripping speed. Gently pour, watch, maintain drip beat, and then stop when your tincture reaches the desired level. If you still have more menstruum to pour and you have reached your limit, stop. Continuing to pour may just dilute your tincture.

### **Why percolate for a few hours instead of macerate for several weeks?**

1. Scientifically, it may make an equivalent or even stronger extract. The herb constantly has fresh menstruum coming through it, so it maintains a strong extracting power even after the easy compounds are taken out. Think of it as trying to clean dye (constituents) out of a shirt (herb) with water (menstruum). Macerating is putting the dyed shirt into a jar of water and leaving it. A certain amount of dye will come out, but as soon as it comes out of the shirt, it’s in your water and lessens the drawing power of the water for the rest of the dye. On the other hand, by running clean water over the shirt, you can potentially get the shirt cleaner.

2. It’s convenient and fast. Especially when dealing with immediate health concerns, you can percolate your herbs and have them in less than 48 hours to dispense as needed.

### **What can go wrong? Why?**

- The menstruum flows through the herb unevenly: You ground or packed the herb poorly.
- Your menstruum flows through the herb too quickly: You packed the herb too loosely.
- Your menstruum doesn’t flow through at all: You either packed tightly, moistened improperly, or it’s just a “muddy herb.”
- Menstruum is leaking past (instead of through) your coffee filter: You didn’t properly place the filter.
- Air is glugging up the cone as the menstruum goes through: You left the cap the cone on when you started pouring.

**What do you do?** Dump it all into a mason jar and macerate for 2-4 weeks (or longer). “IF ALL ELSE FAILS, MACERATE.”—Michael When I first started doing percs, I’d do two at a time, and inevitably one would turn into a maceration. No biggie. Just means you have to wait longer.

### **Where can you get perc cones?**

1. Debbie Mercier of Greenwood Herbals in Maine has a local connection for \$15/cone. Email her directly at [herbalist@greenwoodherbals.com](mailto:herbalist@greenwoodherbals.com) or visit [www.greenwoodherbals.com](http://www.greenwoodherbals.com)
2. You can cut them yourself with a glass cutter. <http://www.youtube.com/watch?v=sFXngPx3w3M>
3. Portland Glass and other glass companies may (somewhat unwillingly) chop the bottoms off your Perrier water bottles for you. You must bring them in clean, label removed, and be prepared for some or all of them to break (you will still get charged the hourly rate by them regardless). Cutting bottles is a pain.

**Have fun! P.S. Feel free to email me if you have questions as things get going.**

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Visit the Links page of [www.WintergreenBotanicals.com](http://www.WintergreenBotanicals.com) for Local & Online sources for seedlings, seeds, *herb supplies*, *herbs*... as well as links to *informative herbal websites*.

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# PERCOLATION WORKSHEET

Adapted from Michael Moore's "Percolation Worksheet" [www.swsbm.com](http://www.swsbm.com)

**Botanical Name:** \_\_\_\_\_

**Common Name:** \_\_\_\_\_

Part Used: \_\_\_\_\_

Date: \_\_\_\_\_

Weight of Dried Herb: \_\_\_\_\_

Recommended Strength\*: \_\_\_\_\_: \_\_\_\_\_ (weight herb to volume menstruum)

## The Menstruum

1. Menstruum proportions\*: \_\_\_\_\_% alcohol, \_\_\_\_\_% water, \_\_\_\_\_% glycerin

2. Volume taken up by ground, compressed herb is approx.: \_\_\_\_\_oz

3. Intended final volume of finished tincture is to be: \_\_\_\_\_oz

*(This quantity is your weight of dried herb x your volume menstruum. Herb volume doesn't matter here.)*

*Ex: 3 oz of herb at a 1:5 would result in a 15 oz intended final volume of finished tincture.)*

4. Initial menstruum needed is calculated by adding #2 \_\_\_\_\_oz AND

#3 \_\_\_\_\_oz, resulting in \_\_\_\_\_oz

*This is the total volume of starting menstruum you need to mix together for the percolation.*

5. \_\_\_\_\_oz (ml) (total menstruum) X \_\_\_\_\_% alc. = \_\_\_\_\_oz (ml) alcohol

\_\_\_\_\_oz (ml) (total menstruum) X \_\_\_\_\_% H2O = \_\_\_\_\_oz (ml) water

\_\_\_\_\_oz (ml) (total menstruum) X \_\_\_\_\_% glyc.= \_\_\_\_\_oz (ml) glycerin

**IT SHOULD ALL TOTAL 100% of NEEDED MENSTRUUM**

## The Percolation

TO MOISTEN HERB, start with 2/3 of #2, or \_\_\_\_\_oz (ml) of menstruum.

Set aside in closed container for at least twelve hours (24 is better)

Pack in cone, with filter paper below, filter paper above

Pour menstruum on packed herb, make sure menstruum descends herb column evenly, drip

out the bottom (controlling speed with the screw cap if necessary) at a rate of one or two drips a

second. (Two drips a second is "Star's and Stripes Forever" march tempo)

## The Tincture

The finished tincture (let it drip an hour after it seems dry) is \_\_\_\_\_oz.[ \_\_\_\_\_ ml ]

It was supposed to be within 5% of #3, which is \_\_\_\_\_oz.[ \_\_\_\_\_ ml ]

(what do you think might have gone wrong? \_\_\_\_\_)

*(\*Most herbs are recommended at a 1:5 in 40-60% alcohol. Feel free to tinker.)*

Volume – measure with liquid measuring cup

Weight – measure with scale



Basic Set-Up (start w/cap off)



Cut and carefully place/seal coffee filter as the first "membrane"



Damp sand consistency pre-moistened herb



Gently put into cone



Gently pack with flat-bottomed object.  
Continue adding herb.  
Slightly heavier pressure with each pack.



Put coffee filter on top, gently  
Gently pour menstruum. Once it drips  
through, add cap and use to regulate drip.