Tea: The Oldest Form of Herbal Medicine

Tea in any form is one of the oldest plant-based medicines in the world. Next to water, tea is the most consumed beverage. In our world, accumulating and unrelenting stress alienates people from nature. This isolation can lead to disconnection from the foundational elements that support the principles of health which naturopathic doctors have protected and have cherished for decades. This disconnect from nature has accelerated with the increase in electronic communication, the freneticism of fragile working environments and the instantaneous nature of information dissemination and ‘edutainment’. Without a fundamental connection with nature, we risk losing the jewel that we call naturopathic medicine. This has happened in the world of simple herbal infusions and decoctions. As a naturopathic profession, we have passed on the responsibility and need for formulating teas to large corporations. In this transition we have forgotten and hence do not use the oldest form of herbal medicine, the herbal tea! I believe that the reconnection to the simple formulation of tea and the use of tea as medicine can have profound effects on patients' health. It's time we reconnect to the simplest and oldest form of medicine and learn the art and science of tea.

The Commitment to Make Daily Tea

I believe that patients' commitment to make and drink a tonic tea everyday is one of the most important commitments to improving their health. In my experience, if the patients accept the responsibility and start preparing tea, the likelihood to make real changes in their health increases over patients who want convenience herbs in capsules or tablets. I have also found that if
the practitioner or doctor does not practice or believe in the art of tonic teas then the patient will quickly reject them as therapy. It is not the difficulty of the practice but the simplicity of making tea that leads to a healthy new ritual for many. I ask you to learn and practice for yourself so you can be a tea doctor.

Tea: Balancing the 4 elements

Using the Native American philosophy of the four directions, I find that the making and drinking of tea has a balancing effect. The four elements are physically represented by different elements in the tea process. The tea or herb is the earth element the body, grounding and providing the nutrients. The water is the flowing body of the tea, warmed by the fire element which is active and dynamic. Finally the air is represented by the steam rising and the blowing on the tea for cooling. In the process of making and drinking tea you will have a balancing effect on all the 4 elements. If you are low in fire, the tea will warm you up, or if you are deficient in water, it will provide fluids. In this simple way tea and the ritual of tea can be a daily tonic similar to other activities that provide balance like yoga, tai chi or exercise.

Herbal Teas: Infusions and Decoctions

When it comes to making herbal teas, it all sounds so simple but in fact it is not. Making herbal tea is a very important traditional herbal skill for naturopathic physicians. With the advances in the profession, many doctors have moved away from simple, time-honored and effective methods like making tea. The tea bag has destroyed the ability for patients and doctors to figure it out themselves and has eliminated much of the art of herbalism. The tea bag is similar to the capsule; it hides the herb away from the consumer and prevents a deeper connection. I am not saying that we can never use tea
bags, but we must still be able to make simple and effective teas. If you don’t recommend teas to your patients you are telling them that they are unreliable and not worth the effort. There is a time and place for all forms of herbs, and teas are the oldest, most economical form and worthy of the effort to learn.

**What is a tea?**

To begin, the word herbal tea is actually wrong. All teas technically reflect the use of tea or *Camillia sinensis* infusion. Herbal tea is actually an herbal infusion, or decoction of any plant that is not tea. These are the two primary ways that herbs are made into water-soluble extracts. The French call them herbal tisanes and they are the primary way we extract water-soluble constituents from plants. We can use hot water, warm water or even cold water depending on what we are trying to extract. We can make infusions or decoctions.

**Hot Water Infusion: Hot water steeping**

An herbal infusion is a water-based extract usually using boiling water as the menstruum. There are two methods to measure out the tea. The folk method which is usually a teaspoon of herb to 1 cup (8 oz) of water, and the scientific measurement method which includes weighing the herb and measuring the water. The general method is to bring a high quality filtered or spring water to a boil, and pour it over the herb; then cover and let it steep for 3-10 minutes. Then strain out the herb and drink the infusion. This is a classic hot water infusion. The key is boiling water, cover the herb, and steep. This method involves no boiling of the herb and is best for flowers, leaves and aromatic herbs. It would be reasonable that any herb that has a lot of aroma would be best prepared by hot water infusion. The terpenes are aromatic and will be lost to the air if boiled. There are a lot of variables depending on how much herb you use, how long you steep the herbs and of course the quality of the herb. The dosing of an herb is very individual depending on the strength and herb but a general dose is 2-4 cups a day. Most herbal infusions that you buy in tea bags are designed to taste good and
are in general low potency, or as I call 'good taste strength'. In general there are about 2-3 grams of herb to each tea bag. A medicinal tea strength is about 2x or more stronger or 4-6 grams per cup. Think of the idea of one tea bag for a tasty beverage and 2 for a medicinal beverage. You can of course make a weaker infusion and have a patient drink more, but remember that taste is the new active ingredient, so don’t make it super strong or nobody will be able to handle it.

The Long Infusion: The long infusion is the same method of hot water infusion. The only difference is the long time used to infuse the herbs. This is a common method that I use to fully extract the water soluble constituents in the plant material. Most of the aromatic terpenes extract quickly in hot water, usually in a few minutes, but the minerals and other glycosides may take longer. This is why the long infusion is useful and it is best to extract minerals and nutrients that are water soluble. I like to start these at night before bed and then strain them in the morning so that there is an 8 hour infusion time. After straining, the herb infusion can be warmed or drunk cold depending on the need. In winter generally we want the teas to be warming; in the summer or for hot conditions, drink them cool to cold. I like to use a dedicated, French press. Add the herbs to the French press, then add the boiling water and cover. In the morning, press down the top and reheat the infusion. This can be done in a pan with a top also.

Cold Water Infusion: The cold water infusion involves no heating of the water. Just place the herbs in cool water and infuse to the desired strength. This is similar to sun teas where the herbs are placed cold in a glass container then placed in the sun. This method is best for extracting the slimy parts or herbs, such as mucilage. The steeping time can be increased to hours because the extracting strength of cold water is much lower than hot water. This is best for herbs like Slippery Elm, Althea which is Marshmallow root and Comfrey (Symphytum).
The Decoction: The bring to a boil and simmer method

The decoction is the process of boiling and simmering an herb, and it is useful for tough and woody roots, barks, seeds and fruits. It is from the middle English decocten, *to boil*, from Latin decoquere, decoct-, *to boil down or away*. In Chinese medicine, most of the herbal prescriptions are decoctions. The general process is to bring the water to a boil, add the herb and turn down to simmer which is a gentle boil. The herbs can be simmered for 20 minutes or longer. These decoctions can become incredibly nasty tasting; the boiling water will extract the astringent tannins and bitter principles. So it is useful to taste the decoction after a while to determine if it is ready. Boiling helps break down the cellulose in plants so that they can be extracted. You can’t decoct an infusion but you can infuse a decoction. This is a fancy way to say, that if you grind the root or bark to a powder, you may be able to infuse the herb instead of decoct it. This is a good method when mixing both leaves and roots. You can infuse the whole mixture instead of making both a decoction and infusion. The ratio of herbs to water is similar to the infusion method. See the enclosed chart for a quick summary.

Long Decoction:

The long decoction is a method in which you will decoct an herb and then simmer for a long time, generally 4-6 hours. This is a common method for medicinal mushrooms like *Ganoderma* and *Coriolus* which are woody shelf fungi and are full of Chitin. Chitin is poorly water soluble but more soluble in hot water. Often Chinese medicinal herbs are useful as long decoctions such as *Astragalus*, Licorice and others.

Tea: Taste is the new “Active Ingredient”

With increasing exposure to natural medicine and the mainstream access to herbal remedies, the use of herbal medicine is increasing. Natural markets and organic groceries are stocking more and more herbal products and increasingly various types of herbal teas. The general public sees herbal teas as a healthful alternative to stimulating caffeine drinks like coffee and Mate. The general public is drinking more herbal teas but not medicinal teas--mild and flavorful blends like Apple-Cinnamon, or Blueberry-Coconut. These
are a challenge to natural medicine practitioners in that these teas taste good but have little useful herbs in them. **The challenge for NDs is to make useful tonic herbal teas in forms and combinations that actually are therapeutic but also taste good.** If a patient refuses to drink one cup then all hope is lost to get them to use this therapy long term. It is your job as the formulator to create a useful and tasty herbal tea formula. Taste is as important as the action of the formula. There are some basic rules to follow to increase the compliance for making teas. The first rule is do not formulate the tea like a tincture formula. Tinctures of herbs have their place in therapy but they are given in drop doses and are highly diluted and drunk quickly. Tea must be drunk slowly with contemplation and relaxation and for a long term. Formulating tea is an art, but with some knowledge and practice, the doctor can become a first-rate tea prescriber. Below I will list some of the tricks I have found to formulate tasty and effective teas.

**Enhancement of Tea**

Drinking tea is a very enjoyable beverage and the process of brewing or the ritual is also important. I believe that 50% of the benefit of the tea is the herbs and the other 50% is the ritual and drinking. It is very important to take the time and not rush in preparing the tea. It is very important that the patients use the tea ritual as a relaxing break, a tea break. It is a time to bring all the elements together and build their health. Having tea awaken all the senses is one of its most important aspects. Below I am listing the ways to improve the organoleptics of tea.

**Visual Presentation**

Tea, especially *Camellia sinensis* from the East has always been surrounded by beauty and mystery. In preparing tea it must be visually appealing in the dispensing bag. I highly recommend buying the commercial tea dispensing bags that are brown paper on the outside and coated plastic on the inside. This will help preserve the tea from light and moisture and provide a pleasing container for transport. Stay away from the zip lock bag which is easy but exposes the tea to light and is cheap. The tea blend should be
interesting to look at and not just a bunch of roots or leaf. Making the tea more visually appealing is one of the easiest ways to improve a tea. I find the best way to add appeal is to add colorful dried flowers or dried fruit to a tea. I stock Rose petals (organic) Calendula, and Lavender flowers for this purpose. Adding a teaspoon to a few ounces of tea adds interesting texture and color. You can also add pieces of dried fruit like apples, apricots or even raisins or dried elderberry. These fruits will also add a gentle sweetener to improve flavor.

**Presentation of Tea and Teaware:**

The tea culture can be very formal and with that comes important presentation. I highly encourage patients to create the tea ritual with beautiful accessories. Like tea pots, cups, bowls and even a tea caddy. I like the Chinese and Japanese teaware as they have a culture of tea and a long history of visually stunning tea pots and cups. I personally have many types of pots and cups depending on my mood. I prefer Asian cups without handles which force you to sit and be still while drinking the tea. The classic big American cup with a handle is a coffee culture thing. I like small cups and frequent breaks to get the best therapeutic effect. I highly recommend a visit to a Chinese teahouse which most big cities have. You will find all the beauty and mystery in the ancient methods, which can easily be applied to herbal tea. I blame the tea bag, similar to the capsule or herbal tablet. It hides the herb from view and blocks the direct relationship with the plant. I rarely recommend herbs in tea bag form. If patients cannot commit to a simple process of infusion they are likely to have poor outcomes in improving their health.
**Color of the Tea:**

It is important to work with the color of the tea especially for children and fussy adults. The color of the tea if unusual or striking in a white tea cup will amplify the tea's beauty, and beauty matters in our culture. Most teas are brown to greenish brown, but it is easy to add a red to ruby color to teas using small amounts of Hibiscus flowers, and diluted fruit juices which also can be used after the tea is made, like cherry, cranberry or pomegranate. Beet juice is also wonderful for adding color and therapeutic action especially for cardiovascular conditions. I like using the FD beet powder and you can add it directly to the tea formula. The other color that is beautiful is to make the tea purple and shades of violet. I have discover that the bronze fennel, especially fresh but dry also, will give a wonderful purple color to the tea especially if it is one of the main ingredients. It also has a wonderful fennel taste and carminative and antispasmodic action too. This is a special purple tea for kids, is beautiful to look at and tastes great.

**Taste and Smell of the Tea:**

This is obviously the most important aspect of having a long term relation with drinking tea. The formulation of tea with the taste in mind is very important. This should not be done at the last minute as is often done with tincture formulation. It is important to think of the patient when formulating. In a fussy child, a healthy adult, a rigid senior are different. All these patients would need various methods of formulation.

• The first and most important is the strength of the tea. If you make the tea strong in strength it may not be pleasant and very little is drunk. It would be better to start with a highly diluted tea and have the patient drink more. See my notes under the different methods of tea, but in general ½ to 2 tsp of herb to one cup would be a good starting place. Think of commercial herbal tea in tea bags, most have only 1 to 2 grams a bag. If you are worried that the patient is not getting enough constituents, a relaxing tea has many ways it works even beyond the chemical compounds. If you start patients right on the path of tea,
their palates will grow and mature and be open to stronger and different tastes in the future.

• **Composition of the herbal formula:** Start with a base of good tasting herbs. Now taste is subjective so you have to experiment and ask. In general add 25 to 40 % herbs that taste good and usually these will be carminatives and flavor adjunctives or corriants. Most will like Chamomile, Mints, Fennel, Anise, Licorice (ask about this first), Licorice Mint (*Agastache foeniculum*), lemon or orange peel, Rose petals, Holy basil, Nettles (to some) and green or white Chinese tea (mild stimulant). The roots that are good are a smaller lot, like fresh Burdock (sweet), Sassafras. Certain plants can never make good teas and should be avoided like Saw palmetto, Goldenseal and other bitter plants.

• **Sweetness of the tea:** A key way to get patients to enjoy tea is to sweeten the tea, but this can be a slippery slope as once sugar is added it can have obvious negative effects. But for younger or older patients it’s almost a necessity to improve compliance. The old saying is true, a teaspoon of honey makes the medicine go down in the most delightful way. However, honey or sugar is often my last resort. I will list my best tricks to improving the taste of tea from the least sweet to the most. Sugar is a flavor enhancer so a little can help drastically. Most folks add way too much, as in the famous sweet tea in the south. So try these other methods before you add sugar in any form.

• **Toasting the herbs lightly:** This is a great method that the patient can do at home and it is appropriate for all roots, barks and seeds. It will bring out a nice toasted flavor which is appreciated by most. Think of the Genmaicha tea which is green tea and toasted rice. Yum. Toasting the herbs also helps convert starches into sugar and brings the sweetness up a bit. This works well for Anise, Fennel, Caraway, Licorice, Burdock, Dandelion, Silybum, citrus peel and others. Place
herbs in a medium heated cast iron skillet or wok, Stir constantly to desired depth or color. Don’t be afraid to try it, but don’t toast in advance as the flavors will fade quickly.

**Stevia:** Stevia is an amazing natural plant which can be grown in most yards easily, as a tender perennial. It has become mainstream now with all the processed forms by large multinational corporations. There are many natural food products with way too much Stevia extracts added. Many of us have come to dislike the taste of Stevia for good reasons. It has a bad aftertaste, and too sweet. I shy away from every form except the fresh or dry leaf. The best is one to three fresh unbroken leaves to a pot of tea, it add a very mild sweetness without the usual aftertaste. Next best is whole dry leaves, its important not to grind the leaves or crush them because they will extract quickly and become too sweet.

**Floral Waters (Hydrosols):** This is one of the best methods of improving the taste without adding sugar. It works by improving the smell! Adding a few drops of hydrosols of your choice to the final tea cup does the trick. My favorites are Rose or Orange water which can be bought cheaply at most import food stores. You can use lavender sparingly too. I have made my own hydrosols out of any aromatic herbs, like mint, fennel, even a little yarrow.

**Dried Fruits and FD Fruits:** These fruits are best added to long infusions or decoctions only as they will not extract in short infusions. These are real fruits not the crazy fake fruit flavors added to commercial herbal teas. The small fruits work well whole, like currants, raisins, blueberries, cranberries, elderberries. The larger fruits are best cut in 4 parts. My favorites are Apricots, Cherries, Strawberries and Blackberries,
Pineapple and Apple are good too. Look for more types of freeze-dried fruits as these will extract quickly and can be used in infusions.

- **Diluted Juices and fresh fruit:** Adding juice to tea can be a nice way to add flavor. In general add the least possible for the patient. Adults 10-15% is a good starting place, kids slightly higher depending on the juice. My favorite is pineapple because it can be diluted but still has a nice flavor. I recommend 100% juice and not ones spiked with grape or apple juice. May favorites are 100% cherry, pineapple, pomegranate, blueberry, aronia berry (strong astringent taste). Fresh fruit can be nice, especially citrus juice and zest (use organic fruit only) lime, lemons and oranges are a kid's favorite and make the tea look interesting as a garnish.

- **Natural Sweeteners:** We have so many choices here but local honey would be the best. It is best to start with ¼ tsp to a pint and work up to taste. Remember it needs to dissolve in hot tea and stirred a bit to make it uniform. After honey there is maple syrup, rice syrup, coconut sugar, Agave syrup, Cane sugar in various natural to unnatural forms. I use these as a last resort and for limited times; as you all know sugar is one of the most addictive substances. I won’t use it if the patient has sugar cravings or is overweight.
Processing the Tea

For most of you this is the most problematic--taking the time to stock, process and build the tea blends. You have to make the commitment and use the teas. Try formulating a tea for every patient. You can still use other meds but this gives you a start at experimenting without placing all the pressure to get it right. It’s not for everyone but it is very worthy of the investment for your patients and yourself. It is best if you have a place in your office where you can teach the patient the simple art or tea, a room with a sink and a burner. Or you can bring the tea into the treatment room and show them the simple tea tools. Patients are very impressed that you served them tea. It is also a good time to formulate the tea and have the patient taste it. Words of caution, making tea takes time (10-30 minutes) and is messy, so it may be best to formulate once or twice a week and have the patient come back for the teas or mail them out. A couple of processing methods about infusions and decoctions is important now. Remember you can infuse a decoction but cannot decoct an infusion. Do we give patients two bags with infusible herbs and another for decoctable herbs? It's up to you, but I like to simplify where possible. What if you want to add mint, oats, dandelion and burdock root? I find that if you grind up the roots, barks and sometime seeds into a powder and add to the infusible herbs it will all infuse well. This has saved patients a lot of time, but of course you or an employee or medicinary will have to do that processing. I hope you enjoy formulating and using herbal teas.
# Herbal Water Based Extraction Methods

<table>
<thead>
<tr>
<th>Making Tea Method</th>
<th>Good Taste Strength Amount of herb</th>
<th>Medicinal Strength Amount of herb</th>
<th>Amount of Water (Menstruum)</th>
<th>Strength Ratio Herb/Menstruum</th>
<th>Best for Extracting</th>
<th>Dose</th>
<th>Herb Examples</th>
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<tbody>
<tr>
<td><strong>Hot Infusion:</strong></td>
<td>2-4 grams Or 1-2 tsp</td>
<td>4-12 grams Or 1-2 TB</td>
<td>1 cup, (8 oz) or 240 mls</td>
<td>Good Taste 1/60 to 1/120 Medicinal 1/20-1/60</td>
<td>Leaf, Flower Aromatics</td>
<td>1-3 cups a day</td>
<td>Mints, Lemon balm, Crataegus flowers</td>
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<td>Boil water, steep 3-10 min.</td>
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<td>Good Taste 1/60 to 1/120 Medicinal 1/20-1/60</td>
<td>Leaf flower, for high mineral</td>
<td>1-3 cups a day</td>
<td>Urtica leaf, Red Raspberry leaf, Alfalfa tops</td>
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<td>Steep 1-8 hours</td>
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<td><strong>Cold Infusion:</strong></td>
<td>2-4 grams Or 1-2 tsp</td>
<td>4-12 grams Or 1-2 TB</td>
<td>1 cup, (8 oz) or 240 mls</td>
<td>Good Taste 1/60 to 1/120 Medicinal 1/20-1/60</td>
<td>For mucilage’s demulcents</td>
<td>1-3 cups a day</td>
<td>Ulmus, Comfrey, Althea, Sea plants</td>
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<td>Cool water soak only 2-8 hours</td>
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<td><strong>Decoction:</strong></td>
<td>2-4 grams Or 1-2 tsp</td>
<td>4-12 grams Or 1-2 TB</td>
<td>1 cup, (8 oz) or 240 mls</td>
<td>Good Taste 1/60 to 1/120 Medicinal 1/20-1/60</td>
<td>For Barks, Roots, fruits and woody parts</td>
<td>1-3 cups a day</td>
<td>Rumex, Arctium, Berberis</td>
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<td>Boiling water, simmer 20 minutes</td>
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<td>Good Taste 1/60 to 1/120 Medicinal 1/20-1/60</td>
<td>Woody fungi, like mushrooms</td>
<td>1-3 cups a day</td>
<td>Ganoderma, Coriolus, Tonic herbs</td>
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<td>Boiling water, simmer for 2-6 hours</td>
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