

Blessed Bitters

by jim mcdonald

In medicinal herbcraft, we sometimes speak of the “actions” of herbs. Most herb books will have a section listing such properties as anti-inflammatory, antispasmodic, hepatic, alterative, diuretic, tonic and a plethora of other words both familiar and obscure. But while these terms are all grouped together, some actions are far more telling than others. For example, saying that an herb is “anti-inflammatory” seems useful, since it indicates what the herb is used for. But it tells us nothing of how the plant achieves this end; it tells us nothing of the herb’s essential nature.

Why is the plant anti-inflammatory? Is it aromatic, containing volatile oils? Is it rich in antioxidant flavinoids?



In soothing mucilage? Is it astringent? It is these actions that provide a foundational understanding of traditional herbcraft, for in these properties the plants speak to us of their virtues. A plant's scent is its language. Its color communicates. In its flavor it speaks to us; not in our language, but in its.

Among the most pervasive flavors found in healing herbs is that of bitterness. Isn't it interesting that this flavor, so widespread and variant in so many of our most trusted remedies, is an unfamiliar one to us? One that people often claim deters them from plant medicines? If plants' tongues speak to our tongues, then what do we not hear when we taste no bitterness?

Bitter Deficiency Syndrome

Bitters are imperative; everyone needs some bitters in their diet. No traditional culture could have imagined a diet virtually (if not absolutely) devoid of any bitter foods—as we seem to have established in most modern diets. This is not to say that one should force themselves to eat a bowl of raw dandelion roots, but to posit that the “medicinal” actions associated with bitters might be viewed in an entirely different light.

I am a firm believer in Bitter Deficiency Syndrome; a notion that posits that much of the health woes faced by modern folk has at its root a lack of bitter flavor in the diet; and that many of the digestive problems for which we see bitters as a “remedy” are actually symptoms of deficiency of this flavor. Perhaps it is not right to think that bitters should be used to *treat* sluggish digestion, but that a lack of bitter flavor in one's diet can be a *cause* of sluggish digestion. Perhaps many of the conditions calling for bitters as a remedy arise from their omission, not unlike rickets arises from a lack of vitamin D.

I was first introduced to the idea of bitter deficiency syndrome by James Green, who wrote in *The Male Herbal*:

It is my opinion that the nearly complete lack of bitter flavored foods in the overall U.S. and Canadian diet is a major contributing factor to common cultural health imbalances such as PMS, other female and male sexual organ dysfunctions, hormonal imbalances, migraine headache, indigestion, liver and gall bladder dysfunction, abnormal metabolism, hypoglycemia, diabetes, etc.

As the years have passed since I initially read this, I have come to agree more and more fervently with this notion, seeing firsthand the restorative actions of dietary bitters. To better understand the notion of bitter deficiency syndrome, let us look at the scope of bitter's virtues.

A Flavor and an Action

One cannot separate the taste of bitterness from its medicine. Though as with all things there are exceptions, it can be broadly stated that by simply tasting bitterness in an herb, one can immediately know a number of the plant's virtues. Should one not taste the plant's bitterness (perhaps the plant is trapped inside a capsule), the actions of the plant will not fully manifest. Its potential is masked with its flavor.

What is it that bitters do? It is often summarized that bitters stimulate digestive secretions and the metabolism as a whole, and in so doing increase appetite, relieve constipation, and generally ease the heavy glumness of sluggish digestion. But, this is really too simple and cursory a summation, and a deeper look into the actions of bitters is not only theoretically insightful but practically invaluable.

The Scope of Bitters

Bitters stimulate all digestive secretions: saliva, acids, enzymes, hormones, bile, and so forth. Each of these acts as a solvent to

break down food for absorption, and the quantity and quality of these fluids ensure proper nutrition. Inadequate production of these secretions is common in modern cultures (i.e. cultures lacking bitters in their diet), and the implications of such deficiencies are myriad.

When first tasted, bitters promote salivation, which begins the process of digestion by breaking down starches and beginning to work on fats. Taste receptors in the mouth (there are over twenty-five different bitter taste receptors) recognize the presence of bitters, and trigger a system-wide reaction throughout the digestive tract.

In the stomach, sufficient hormones, acids, and enzymes are needed to help break down proteins and carbohydrates, and to free up minerals for assimilation. Bitters stimulate the secretion of the hormone gastrin, which regulates the production of gastric acid. Inadequate stomach acid will prevent the uptake of minerals, which will in turn rob the body of essential nutrition needed for wellness (even if those nutrients are being consumed as foods or supplements). Low acid also weakens stomach tissues, and is often the foundational cause of esophageal reflux (though most people mistakenly believe they have too much acid). It is well known that as people pass into their elder years, they produce less stomach acid. This is sometimes remedied by taking supplemental hydrochloric acid, but it makes far more sense to restore bitters to the diet, which will allow the body to produce its own acid, rather than relying on a supplement and allowing bitter deficiency to continue. Bitters also increase production of the enzymes pepsin, which helps break down proteins, and intrinsic factor, which is essential for the absorption of vitamin B12, which has far-reaching effects ranging from blood building to neurological function.

Bitters act on both the pancreas and liver/gall bladder, helping to normalize blood sugar and promote the production and release of pancreatic enzymes and bile, which ensure good digestion of fats and oils. A healthy flow of bile helps rid the liver of waste products, prevents the formation of gallstones, and emulsifies lipids, which the pancreatic enzymes then break down along with proteins and carbohydrates for absorption in the small intestine. Bile also provides lubrication for the intestines, helping to facilitate the passage of digested food. Deficient bile and sluggish liver/gall bladder function can lead to dryness in the intestines, which is often a cause of chronic constipation. Bitters also promote secretion of digestive juices within the small intestine, further aiding bowel transit and nutrient assimilation. New Mexican herbalist Kiva Rose adds:

In close relationship to the effects on both the liver and pancreas, bitter herbs and foods can often dramatically help the irritability, bloating, moodiness, and digestive upset of PMS.

In addition to the action of bitters on digestive secretions, they also strengthen the tone of tissues throughout the digestive tract, as well as aid in the healing of damaged mucous membranes. This helps resolve conditions ranging from gastroesophageal reflux to ulcers to leaky gut syndrome. Peristalsis, the wavelike contractions of muscles lining the digestive organs is likewise enhanced, helping move digestate through and out of the body.

All these actions, taken together, can have a net result of restoring appetite, indicating bitters for loss of appetite resulting from causes ranging from chronic indigestion to illness to anorexia nervosa. On the other end of the spectrum, bitters also seem to be very useful when addressing cravings, particularly of

sweets. I believe the craving our minds feel for sweets is literally the craving our bodies have for bitters. In their natural form, most sweet flavors are associated with some degree of bitterness (sweet foods and herbs such as pure sugarcane, licorice root, and stevia all possess some bitterness). Any bitter flavor, though, is removed entirely when sugars are refined. Our bodies evolved with this association and they still remember it; hence, sweet cravings are a way our bodies have of asking us for bitters, and they can often be sated by tasting things that are bitter. Cravings need not be relegated to food, however. Small doses of many bitter herbs can be very helpful for cravings associated with many addictions, due to their calming affect on mood (elaborated on below). An example of this is the chewing of calamus root to ease the cravings for tobacco.

Traditional herbalism in cultures throughout the world consider bitters to have a “downward” action. This refers not only to bitters more readily perceived digestive actions (including their admirable efficacy in resolving bad breath arising from the gut), but also to their more esoteric virtues.

Bitters tend to be grounding, helping to strengthen one’s connection to instinct. They help to shift people from intellectual “brain” energy (which looks at things, takes them apart, and sees the pieces) to gut energy (which reacts to things instinctually, independent of intellectual consideration). An example of this might be when a person meets someone, and initially gets a bad vibe for them, but then goes on a head trip about how they’re being judgmental and how they’re probably projecting and they’re going to let go of their preconceptions . . . only to discover (time and again) after doing so that their gut was right in the first place.

Bitters also help people return to present moment reality. In “not here” situations, bitters will help bring someone from

wherever they're "at" back to the present. This has to do with the head/gut dynamic as well. Head energy is notoriously "not present;" rather, the person's consciousness exists where their thoughts are. A taste of bitter helps to reground a person to the present.

British herbalist Sarah Head has called the bitter flavor of bitters "releasing." Reaching beyond the physiological release of gastrointestinal (GI) fluids, we can see that they help one let go of stuck energy—particularly anger and frustration—emotions often viewed in traditional medicine as being tied to stagnant/sluggish liver energy. Bitters, in addition to releasing bile, also help people let go of the emotional energies housed in different organs.

This correlation between bitters and mood may seem to some speculative or even spurious, but here there is abundant rational evidence to support the assertions (for those who are stuck in their head energy). The gastrointestinal system, as a whole, houses the enteric nervous system (ENS), a part of the autonomic nervous system that controls the involuntary goings-on of digestion. But this isn't the only role played by the ENS. Many people are surprised to discover that the brunt of mood-related hormones and neurotransmitters, including serotonin, dopamine, endorphins, and benzodiazepines, are produced not primarily in the brain, but in the gut by the enteric nervous system. So, if your metabolism is deficient, and the GI tract has to deal with the problems that come along with deficiency, wouldn't it seem reasonable that something we know perks up GI functions (bitters) might perk up the production of mood-related hormones as well? This seems especially likely when we consider that we know bitters stimulate the production of the hormone gastrin, and the action of serotonin in the gut, which is to calm irritation, and promote

peristalsis and digestive secretions. Practically speaking, bitters do indeed serve as excellent calmatives and often can banish depression correlated with digestive deficiencies.

So, to summarize, we see that bitters possess a corrective influence over sluggish metabolism, deficient stomach acid, and bile secretion resulting in difficulty digesting fats, oils, and proteins, nutrient deficiency, loss of appetite, cravings, addictions, ungroundedness, anxiety, depression, and other conditions that are rampant in our culture. That these conditions are among the most frequently medicated, using both over the counter and prescription drugs, underscores the merit of using bitter plants.

Contraindications and Considerations

Bitters are considered “cold” in energy in traditional herbcraft, and long-term or heavy use is said to “cool the digestion,” something not seen as desirable. This doesn’t mean their use should be avoided, but that they can benefit from combining them with a warming herb (ginger, for example), or by the use of bitters that are also warming (like calamus or angelica).

Another consideration is that if a person is frequently bothered by intestinal gas, pungent, aromatic, “carminative” herbs (such as fennel, orange peel, chamomile, or anise) should be added, as the volatile oils they contain possess a dispersive effect and their use helps to expel gas.

Bitters are also said to be drying, because the increased secretions they stimulate remove fluids from the body. Constitutional dryness is often associated with nervous anxiety, and again our friend Kiva Rose offers an insightful observation:

I have observed bitters having the ability to space out already airy people. This seems to be because of the drying

qualities, and these vata-ish airy people need extra moisture to keep them grounded and present, when they dry up, they have a tendency to blow away.

This isn't really a contraindication for bitters, but it does present a need to complement them with something moistening—licorice being an exemplary consideration. Some bitters, such as fenugreek, also provide moisture to address this aspect.

These considerations regarding bitters are easily addressed by combining bitters with other herbs in a formula, or by using those bitters that are also warming, aromatic, or moistening. Also, such issues are most pertinent when using more overtly medicinal bitters, as opposed to nutrient-rich foods which possess a bitter flavor.

Bitter Foods and Bitter Medicines

The quality of a plant's bitterness is widely variable in both character and degree. Many bitter herbs are more accurately referred to as foods, while others are decidedly medicinal in their action. Bitter foods should be considered essential to good nutrition, whereas bitters of a more medicinal nature should be reserved to address specific concerns not remedied by dietary bitters.

How can you discern between dietary and medicinal bitters? Primarily by whether the plant can be considered a food you can easily eat. Dietary bitters consist of many incredibly nutritious leafy greens. The very notion of having salad before a meal originates from the role of the bitter greens that were once the mainstay of salads. Indeed, salad wasn't always chopped iceberg lettuce and fatty dressings, but used to be made from wild leafy herbs such as dandelion and chicory, or many of the common weeds that naturally spring up around human

habitations. These nutrient-rich herbs were complemented by vinegar dressings, which also serve to extract their minerals for optimal absorption. A salad of this nature not only serves as a nutritious appetizer, but also aids in the digestion of heavier foods, which often make up the “main course” of meals.

Medicinal bitters are too powerful in flavor to make useful foods. Few indeed (even me) would care to sit down to a soufflé of gentian roots, or replace their tarragon (*Artemisia dracunculus*) with wormwood (*Artemisia absinthium*). Such herbs are appropriately used to address a particular need, be it chronic indigestion or that heavy, stuffed feeling that often follows liberal holiday feasting.

Using Bitters in Food and Medicine

So how does one go about introducing bitters into their diet? Initially, by the gradual inclusion of bitter foods, which include a slew of immensely nutritious greens, high in vitamins, minerals and other nutrients we don't yet value enough. When making your next salad, try adding some of the many bitter greens, available either from your own healthily neglected lawn or even many supermarkets. Arugula, watercress, endive, radicchio, and various mustard greens can be found at many groceries these days, either on their own or in herb or “spring mixes.” Even better, dandelion, chicory, and other weedy plants will grow of their own accord in your yard (without any work from you) if you let them—wild bitter greens abound.

Likewise, such greens can be used to top sandwiches or garnish familiar dishes. I often top pasta with a blend of slivered dandelion leaves and sesame and ground flax seeds, and have been known to bring in a small bag of bitter leaves to replace the sad looking lettuce restaurants place atop a sandwich.

Stir fries are spruced up by such greens, thrown in shortly before serving, and pestos can even be made more nutritious and palatable by blending such plants as garlic mustard in with the basil.

A few considerations are worthy of mentioning. If the bitter flavor is new to you, and seems more agreeable to your brain than your palate, ease bitters into your dietary repertoire. Taste different bitters individually to see which one's you like best, and blend them into a salad consisting of milder or sweeter greens (including other wild plants, such as chickweed or violet leaves). You needn't clobber yourself over the tongue with their flavor; just add enough to sense their bite.

Acids generally complement both the flavor and effects of bitters. As mentioned above, vinegar can be used as a dressing on salads, and will both mellow the flavor and aid in the assimilation of minerals. Ginger in a dressing will also "warm up" the flavor. A splash of lemon juice, or the addition of sun-dried tomatoes, can likewise make bitter greens more palatable. Fats, spices, and a bit of sea salt also help balance and enhance the bitters' bite.

Although initially an unfamiliar taste you may feel an aversion to, you'll probably find that the body quickly recognizes the essential nature of bitters. After using them a bit, the brain registers that the body is reacting to them in an "Oh, finally" manner. Once we feel them satiate a craving we've long nursed and tried unsuccessfully to fill with something else, it clicks.

The use of medicinal bitters often requires more consideration, though there are a number of simple indications for their use. Most simple, acute indigestion can be allayed by a small dose of bitters; 15 to 30 drops of a bitter tincture will relieve the slow, stuffed, stagnant feeling that comes with too-liberal feasting. In fact, the addition of Angostura bitters to champagne

is intended to do just that. For more developed or chronic health concerns, greater discernment is required when choosing which herbs to use, and further study or the insights of a knowledgeable herbalist are likely warranted.

Bitter tinctures can be made simply by soaking chopped dandelion or yellow dock roots in vodka in a mason jar for a few weeks, or they can be formulated from several plants for a broader action. I make a tincture blend of gentian and orange peel spiced with a bit of ginger, which tastes quite nice and works equally well. A blend of roasted and raw dandelion root could be used as a more readily available substitution for the gentian. Small quantities of tea can also be used; and, in fact, the familiar and tasty chamomile, if made by steeping an ounce of the dried flowers in a quart of water just off the boil overnight, yields a potent brew, both bitter and aromatic. Such a strong infusion can be taken in an ounce or so as a dose, with the excess frozen in ice cube trays and thawed as needed to lessen the task of daily tea making. It's worth noting that bitters that are also diaphoretic, such as chamomile, will favor sweating over GI effects when drunk hot, and so best consumed lukewarm, cool, or cold.

The Bitter End

What seems to us as bitter trials are often blessings in disguise.

~Oscar Wilde

While not referring to the taste of plants, this sentiment holds true when applied to them. People associated bitterness with negative virtues such as spite and resentment, and yet, what emotional bitterness really originates from is stagnation; the inability to release a belief or feeling that no longer serves, but rather hinders, our wellness, development, and growth. The bitter person is oppressed by avoidance of the very thing

they cannot let go. Only by embracing bitterness can we learn what it has to offer—to teach us. In this embrace we find it rich in medicine.

As it applies to herbs, these same factors resonate. We avoid bitterness because its taste seems uncomfortable; it challenges us. And yet when embraced, we find what it offers us is an abundance of medicine, which allows us to escape from a state of stagnation and release those things, both physiological and emotional, that hinder the blossoming of our wellness.

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