Introduction to Digestive Wellness

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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 (see website for sources),
2. Listen to your body/intuition to determine if an herb resonates or doesn’t resonate with you.
3. Take proper steps to ensure that any wildcrafted or cultivated plant is what you think it is, AND
4. Check with your pharmacist for herb-drug interactions if you take prescriptions.

Basic Digestion:

1. Senses. Optimal digestion begins with the senses. The smell of food, its visual appeal, the sound of onions sizzling… all these things should prime the pumps of your digestive system. If the food tantalizes you, then your parasympathetic nervous system (relaxation & normal function) turns on the switch. If you work in the food industry or spend all your time cooking, you may find that meals no longer have sensual appeal. Try going to another restaurant for dinner, or have your partner cook a meal for a change. Similarly, if you’re under a lot of stress, your sympathetic nervous system (fight or flight) may prevent your digestion from working optimally.

2. Mouth. Food hits your tongue and sparks your taste buds. Salivary glands begin to produce amalvase, a digestive enzyme that helps split carbohydrates. The glands also produce mucus to moisten food so that it slides easily through the digestive tubes. During optimal digestion, these changes in the mouth stimulate the rest of your digestive system to begin working: protein-splitting acid and enzymes begin to go into the stomach; bile is stimulated, etc. Digestive bitters are perhaps our best ally in improving digestion because they increase saliva, digestive enzyme, and bile production; they even indirectly improve peristalsis and thus act as mild laxatives. We traditionally ate bitter salad greens or bitter cordials to improve digestion. Bitters work much better if you taste them, though pills will work a little. A few notable ones include artichoke leaf, gentian, wormwood (semi-toxic), turmeric, schisandra, dandelion leaf & root, and orange peel. Echinacea and spilanthes directly increase saliva production.

Your teeth and tongue manually break down food so that it is easier for the rest of the digestive system to break down and absorb. Mom was right: Chewing food more thoroughly really can improve digestion. It’s certainly worth a try before going to pharmaceutical or natural therapies for indigestion.

3. Pharynx & Esophagus. These two portions of your digestive tube function as pathways from the mouth to the stomach. They do not digest food, but they push it along via peristalsis—the wave-like motion that moves throughout the digestive system from pharynx to rectum. The epiglottis is a small piece of cartilage in the pharynx that ideally directs food down the esophagus instead of to the lungs. It also prevents air from going into the digestive system. As we get older, the epiglottis becomes less functional, making it easier to choke on food.

4. Lower Esophageal Sphincter (LES). Sometimes called the cardiac sphincter, this is a circular muscle designed to keep the stomach shut from the esophagus once food has passed through. Your stomach produces strong acids and protein-digesting enzymes, which can damage the lining of the esophagus.
Acid Reflux or GERD occurs when the LES does not shut properly and digestive juices splash up into the esophagus. This can cause a burning sensation, voice loss, temporary and permanent damage to the esophageal lining, etc. Licorice and deglycerrhized licorice (DGL) are best researched for helping relieve reflux symptoms. Acid reflux can be caused by several situations.

a. **Weak muscles in the LES.** Bitter orange peel extract is one of our better remedies for this. Use caution with antispasmodic herbs like peppermint, which relax digestive muscles (not good in this case).

b. **Too little stomach acid.** Adequate stomach acid is required to signal the LES to close. If this is the case, the acid reflux is improved by taking a spoonful of apple cider vinegar with your meal. Bitter herbs taken in liquid form just before meals can help indirectly.

c. **Too much stomach acid.** Too much acid may burn the LES and aggravate digestion. Apple cider vinegar would make the reflux worse in this case. Licorice or DGL would be more helpful.

d. **Poor diet & lifestyle.** Reflux can be aggravated by eating overly acidic foods: coffee, tea, spicy foods, fatty foods, too much protein, dairy, citrus, tomato-based food. Lying down or leaning over after eating can cause or aggravate reflux, as can tight clothing, stress, eating too fast, and other things. Digestive enzymes may help acid reflux of any cause.

5. **Stomach.** Your stomach is located on the left side of your body, under your heart, protected by your rib cage. An empty stomach looks somewhat like a deflated balloon—it is made up of wrinkles that expand when food goes into your stomach. Three types of muscles churn the stomach. The primary digestive purposes of the stomach are as follows:

a. **Mechanical breakdown of food.** The churning of the stomach breaks it up and liquefies it.

b. **Protein digestion.** The stomach is a protein-digesting machine. Hydrochloric acid (HCl) is the biggest player. Outside of your stomach, it could burn a hole in the floor. It not only digests protein, but it turns on trypsin and pepsin, two protein-digesting enzymes. Your stomach is lined with a thick coat of mucus to protect it against its own acids.

c. **Butterfat digestion.** Generally speaking, fat digestion occurs in the duodenum outside the stomach with assistance from bile, liver, and lymph. However, infants do not have optimal liver function, so the stomach is designed to digest butterfat (mothers milk) via gastric lipase. Its action is weak due to the acidity of stomach juices.

d. **Bacteria destruction.** The acid (low pH) of the stomach will kill most bacteria that enter the body on food or are swallowed via nasal mucus. Your stomach is one of your first lines of defense against disease.

e. **Intrinsic factor.** This component of digestive juice is made in the stomach and is required for B12 to be digested properly by the small intestine later.
Ulcers (in the stomach or small intestine) occur when the stomach is too acidic, the pyloric sphincter does not work properly, the mucus lining too thin, the stomach lining too irritated, or a combination of the above. We used to think that ulcers were caused by stress and poor diet. While these things can aggravate an ulcer, we now know that most ulcers are caused by two things.

a. *Helicobacter pylori* (*H. pylori*) is a bacteria recently discovered to cause ulcers. While you can have *H. pylori* and no ulcers, the presence of *H. pylori* increase your likelihood of developing ulcers, and for them to reoccur. Antibiotics are very effective at killing *H. pylori*. *Goldenseal* and other “bitter berberines” and *mastic gum* are two herbs that are commonly used to kill the bacteria, and several herbs including *licorice*, *chamomile* and *black tea* may help prevent or inhibit *H. pylori* infections.

b. NSAID/Antiinflammatory drug overuse causes inflammation of the stomach lining and can cause ulcers and gastrointestinal bleeding. Ibuprofen and aspirin are common culprits. You must stop using the NSAID to get rid of the ulcer.

Therapies like *licorice* or DGL (anti-inflammatory and encourage mucin production), *slippery elm* and *marshmallow roots* (coat the lining), and short-term use of *comfrey* (cell-proliferative & soothing) may assist the healing process. Coffee and alcohol should be avoided to help the ulcer heal more quickly. Milk and dairy products may immediately soothe ulcer pain, but ultimately their protein and butterfat will increase stomach acid production, making it worse. Plenty of *water*, *fiber* and vegetables, reduced protein and fat should speed healing and reduce pain. *Fresh cabbage juice* and one of its components, the amino acid *glutamine*, are used to heal stomach lining. Add lots of greens (alkalizing) to the diet.

*Comfrey* (*Symphytum officinale*) is an invaluable medicinal leaf & root with a somewhat deserved bad rap. Both parts of the plant contain soothing mucilage and allantoin (a pharmaceutically recognized cell proliferative and wound healer), which are useful for digestive problems like ulcers as well as lung irritation. HERBAL CONTROVERSY: Unfortunately, it also contains pyrrolizidine alkaloids (PAs) in varying (unpredictable!) amounts that, over time, accumulate and are carcinogenic and toxic to the liver. Problems have occurred for over-eager folks who drank, oh, about 15 cups a day ongoing as part of a “cleanse” as well as some lower doses. It is now illegal to sell it for internal use. I am personally comfortable with it for short-term use (1 week) in small doses (1-2 cups of tea, as part of a blend). You will have to do your own research and make your own decision.

6. Small Intestine. Your small intestine finishes the stomach’s job digesting (breaking down) food, and carries out most of the assimilation (absorption of nutrients) as peristalsis passes food through the tube. Your duodenum is the first section of the small intestine. This is where the bile helps you digest fat. As your liver does its job it produces waste in the form of bile & bile salts and stores it in the *gallbladder*. As food exits the stomach, your gallbladder excretes the bile into the chyme (partially digested food). Bile salts act like soap on a dirty dishpan and help emulsify the fat. This allows the digestive enzyme lipase to work more efficiently, and for fat-soluble vitamins A, D, E, and K to be better absorbed. *Lymphatic cells* that line the intestines carry fat to the liver for further absorption.

*Lymph Movers*: Lymph is the back alley garbage system of the body, slowly absorbing and filtering out waste, and transporting key immune cells. Our primary lymph-movers are *red root* and *burdock*.

The pancreas also rests near the small intestine, and shares the common bile duct with the gallbladder, connecting both to the intestines. The pancreas excretes digestive enzymes including amalase (carbohydrates), lipase (fat), trypsin & chymotrypsin (protein). The mucus cells lining the intestines excrete more lipase, sucrase, maltase, lactase (sugar), and more digestive enzymes.

*Gallstones* occur when cholesterol—normally a part of bile—precipitates out and forms solid crystals, which can enlarge over time. This can happen if bile is too concentrated, if liver cells secrete too much
cholesterol, or if the gallbladder is inflamed. Gallstones can block the flow of bile and cause extreme pain in the upper right size of the abdomen, especially after fatty meals. Nausea, vomiting, and loss of appetite may occur. Gallstones are more likely if you have the 4 Fs: fair, fat, forty, female. High cholesterol and poor diet choices can also play a role. Gallstones can be dangerous. It is best to work with a qualified practitioner to treat them. I strongly recommend AGAINST doing the olive oil gallbladder flush.

7. Large Intestine. The primary job of the large intestine is to squeeze water and electrolytes out of the chyme before it is eliminated. It joins with the small intestine in the lower right quadrant of the abdomen, goes up (ascending colon), across the upper abdomen to your left quadrant (transcending colon) and then down your left side of the abdomen to the rectum. The special structure of the colon allows it to twist while peristalsis moves chyme through. Your beneficial bacteria—intestinal flora, or probiotics—live primarily in your large intestine and help you break down fiber or cellulose, which human digestive enzymes do not break down. Intestinal flora also help you synthesize vitamins K, B12, B1, and B2. Rose petals and ginger root may help feed/support beneficial bacteria.

**Diarrhea** can be caused by many things—disease, infection, food sensitivities/allergies, poor digestive health (IBS, Crohn’s disease..), etc. Diarrhea (episodic) is a healing mechanism of the body to help rid it of infectious microorganisms or poisons. For this reason, diarrhea is usually best left alone. Supportive use of rest, plenty of fluid, electrolytes, and probiotics are recommended. Miso soup is a soothing beverage to drink that provides sodium (an electrolyte), beneficial bacteria, and water. Astringent remedies like blackberry leaf or root, black tea, carob, cinnamon, rose petals, and a diet of bananas, rice, applesauce, and toast can firm up stools and soothe the intestinal lining. Diarrhea in children and infants can be life-threatening. Chronic diarrhea can be treated with natural remedies, but you should see a doctor to find out why the diarrhea is occurring and treat underlying causes.

**Constipation** occurs when food stays in the colon too long and too much water is removed. Major factors in improving constipation include 1. adequate water intake, 2. adequate fiber and fruit/vegetable intake, 3. movement, 4. relaxation, 5. obeying the urge to go. Natural peristalsis should provide easy exit of feces; this is part of the parasympathetic nervous system. Stress and the sympathetic nervous system can shut off or slow the peristalsis, causing constipation. Some people find it helpful to massage the large intestine by following the colon from the lower right abdomen, up, across, and down the left side of the abdomen. The Ayurvedic blend triphala is used to regulate colon health and has some laxative properties. Strong laxative herbs like senna, cascara, rhubarb, and aloe latex can be helpful in relieving constipation short-term. However, they can become habit-forming if used regularly. Triphala and yellow dock contain some of the habit-forming laxative properties, but in smaller amounts with balancing astringent properties. Prunes are an old standby that we tend to forget about.

**Fiber Sources**: Psyllium, ground flaxseeds (not the oil), apple pectin, grapefruit pectin, guar gum, beans, whole grains, high-fiber cereal, figs, pears, apples, and other fruits and vegetables. Fruits and vegetables have only a few grams here and there, but they add up in a healthy diet.

**Gas** can be caused by poor intestinal flora health. The yeast/fungus candida, or bad bacteria like E. coli may proliferate and decrease the quality of digestion. The improper breakdown of food releases foul gases. Enteric-coated peppermint oil can relieve colon spasms and pain. Probiotics like acidophilus, fermented food, and yogurt can help replenish good bacteria. Candida and bad bacteria generally thrive on sugar, so you it is recommended to reduce or eliminate sugar and refined carbohydrates. Some cases of candida or dysbiosis may call for anti-microbe herbs like oregano or berberine-rich goldenseal, coptis, barberry, or Oregon grape root.

**Candida**, or a yeast infection, may affect the gut and potentially become systemic. It is a form of Disbysiosis, though bacteria and other “bad guys” may also be at fault. Our food choices—particularly for sugar—can cause normal candida levels to escalate and cause problems. Antibiotic use can also set us up for acute or chronic infection. If you eat lots of sugar, have taken antibiotics, have had frequent vaginal
yeast infections, and are also experiencing digestive troubles, candida is likely to blame. Even less obvious symptoms like GI upset, sugar cravings, and fatigue can be signs of a chronic candida infection (or signs of stress and a number of other health concerns). Follow the above recommendations for “Gas,” reduce/eliminate sugar & carbs, at least temporarily, Take probiotics and eat fermented food. Consider berberine-rich herbs (see above). Also consider pau d’arco, an herb that seems very good at bringing a candida-ridden body back into balance. Many of our chai spices—clove, cinnamon, maybe even cardamom—also have gut and candida benefits (and they blend nicely with pau d’arco in tea). Rose petals also help astringe and soothe tissues, ease diarrhea, and may even promote beneficial bacteria.

Leaky gut occurs when the lining of the colon becomes inflamed and porous, allowing particles of food to escape the digestive tract. Leaky gut may occur due to food sensitivities and autoimmune disease. It may also aggravate food sensitivities. Common food allergies/sensitivities include dairy, gluten (wheat), corn, eggs, citrus, nuts. Leaky gut may be a component of Inflammatory Bowel Diseases like Crohn’s or colitis. A low-allergen diet, combined with probiotics, fiber, and intestinal lining support like glutamine, triphala, licorice, slippery elm or marshmallow roots, turmeric, fish and flax seed oil, etc. These diseases increase the risk of malnourishment and colorectal cancer. You should work with a qualified practitioner. For both subtle and severe situations, gentle astringents may be helpful to tighten and soothe GI tissue: purple loosestrife, Canadian fleabane, Bidens sp, Yarrow and YARFAs (“Yet Another Rose Family Astringent”) like rose petals, blackberry/raspberry/strawberry leaves, cinquefoil, lady’s mantle…

Irritable Bowel Syndrome (IBS) has no known cause. Physically, the digestive tract appears healthy, and IBS does not increase the risk of serious diseases like cancer. However, patients with IBS can experience severe pain and reduced quality of life. Food sensitivities and allergies may play a role in causing colon spasms, gas, and pain. Stress is often a trigger. Peppermint oil capsules have been shown to help reduce pain. Usually a protocol is needed that addresses food choices, stress levels, and supportive antispasmodic herbs.

Digestive Herbs

**Peppermint leaves (Mentha piperita) – Antispasmodic for Gas, Indigestion & Pain**

The leaves of this well-known aromatic plant have antispasmodic and carminative properties, making it an ideal remedy for gas, colic, Irritable Bowel Syndrome, and digestive upset. It provides some relief from nausea, especially in the form of tea, candy, or gum. It may block pain through its antispasmodic action as well as depleting substance P. This is helpful for digestive pain, and the essential oil or herb compress is sometimes applied topically for pain, sinus pain, and headaches. One study found that peppermint co applied the temples relieved tension headache pain as well as ibuprofen. The essential oil is also used to clear the sinuses, uplift the spirits, and provide energy. Peppermint’s pleasant taste puts it in many blends simply for flavor. Most mints—especially spearmint (Mentha spicata)—provide nice flavor and some antispasmodic action, but peppermint is the most medicinal. The runner up would be our only native mint, Wild Mint Mentha arvensis, sometimes called Brook Mint because of its common habitat along water; out west it’s called Poleo. Menthol is the “active constituent” in peppermint, but many other chemicals are likely to lend a hand. Use: Standard herb doses. Peppermint is a premier tea herb. For really bad gas and Irritable Bowel Syndrome, enteric coated peppermint oil pills can deliver it effectively to the intestines. Just know that it can be minty fresh on the way out. Peppermint essential oil can be inhaled or applied topically—just make sure to dilute it in some vegetable oil so that it doesn’t burn the skin. Cautions: Peppermint is contraindicated in acid reflux, where its antispasmodic action works against you and relaxes your LES. Peppermint has some emmenagogue activity, so use it with caution or with a practitioner’s guidance during pregnancy.

**Ginger root (Zingiber officinalis) – Warming Digestive Stimulant, Gut Flora**

Ginger is SUCH a useful medicinal plant. Digestion is just the beginning. Like peppermint, ginger is helpful as an antispasmodic for gas, colic, pain, and digestive upset. It is rich in natural digestive enzymes,
and is overall warming to the digestive tract. Ginger is well-known for nausea and can be helpful for morning sickness, motion sickness, radiation sickness, and pretty much any type of queasiness. Capsules, crystallized ginger, or candy are all used for nausea. Ginger helps fight microbes in the digestive system and also appears to feed beneficial bacteria in the gut—providing doubly good protection. It is a great preventative to take with you—or consume freely—while traveling in foreign countries. Similarly, ginger is good solo or with other herbs for colds, flues, and sore throats. It is diaphoretic and useful for breaking a fever and kicking a cold. In other areas of health, ginger appears to help the liver detoxify more efficiently. It blocks pain and inflammation through inhibition of COX-2 enzymes, prostaglandins, and leukotrienes and by breaking down fibrin. Ginger improves circulation and appears to reduce platelet aggregation, lessening blood stickiness. Unlike NSAIDS, ginger does not significantly inhibit clotting factor nor increase the likelihood of ulcers. (Ginger can help *protect* against ulcers, although it would be too spicy in an active ulcer.) Ginger helps your liver excrete cholesterol by encouraging cholesterol’s conversion to bile acids. Ginger (as well as mustard) is sometimes used as a warming bath or compress to increase circulation and bring heat to an area. I prefer fresh ginger root—the flavor is superior. Dry ginger is hotter medicinally. Both forms are used as a synergist in formulas to improve flavor and increase the other herbs’ actions…. So, have you made yourself a cup of ginger tea yet? Use: Fresh ginger root can be sliced and decocted—or grated and infused—for 15-40 minutes. Sliced lemons, cinnamon sticks, and/or sprigs of thyme do well for colds, digestion, and detoxification if infused with ginger for at least 1 hour in a thermos. Ginger pills are useful for nausea, to prevent food poisoning, pain and inflammation, etc. Tinctures work, too. Ginger is a food, so there are many ways to take it: pickled, minced, crystallized, in honey, as candy, etc. Cautions: High doses should not be used in pregnancy because ginger is also an emmenagogue (stick to mild tea, candies, crystallized). People of a hot constitution may find ginger too warming for them. And folks with acid reflux or acute ulcers may find it aggravating.

**Fennel (Foeniculum vulgare), Dill (Anethum graveolens), Cardamom (Elettaria cardamomum) seeds**

As well as allspice (Pimenta dioica), anise (Pimpinella anisum), caraway (Carum carvi), clove (Syzygium aromaticum), coriander (Coriandrum sativum), cumin (Cuminum cyminum)... **Gas, Colic & Pain**

These aromatic seeds, buds, and pods can be taken as tea, tincture, cordial, or chewed in seed form for gas, colic, and similar digestive problems. They seem to help move painful gas out of the intestines. Anise, dill, fennel, and caraway were commonly called “Meetin’ seeds.” Puritans reportedly carried in little tins and chewed to calm growling stomachs during long church services. They have antispasmodic and carminative action; you’ll find almost all of them in different bean recipes to supposedly reduce flatulence from the “musical fruit.” I rarely have digestive problems, yet I occasionally meet intense pain and gas from poor food combinations. While working at natural food stores, I would immediately run the to bulk spice section, buy some fennel seeds (for pennies!) and find quick relief. Use: Tea, tincture, cordial, seeds. Teas can be decocted or infused. A scant teaspoon per cup, and make sure to let infusions sit for 15-30 minutes for best effect. If chewing, you can spit out or swallow the seed pith. Cautions: These herbs are best in smaller doses as described in the Use section. Read up on any of them before taking them in larger, capsule form; some of them are too strong. Several may have emmenagogue effect and should be used with caution (even in small doses) during pregnancy.

**Licorice root (Glycyrrhiza glabra) or Deglycyrrhizinated Licorice (DGL) – Acid Relief**

Just about every culture except American is unanimously in love with this super sweet, slightly bitter flavor in their desserts and liqueurs. Likewise, it is an important medicinal herb in most cultures, primarily Ayurveda and TCM. Licorice has many uses and some contraindications. For the digestive system, it is an important soother and natural antacid, performing as well as Tagamet, Zantac, and other pharmaceuticals for ulcers. It appears to support mucin production, protecting your stomach lining. (Practitioners and researchers often use the DGL form that has had 97% of the slightly problematic glycyrrhizin removed. This is “dumb” licorice, but it works for ulcers and heartburn and does not have the safety concerns listed in Cautions, below.) The whole root is used as a soother, expectorant, and anti-inflammatory for sore throats, coughs, and respiratory problems. It appears to act like cortisol to help treat adrenal fatigue.
Licorice is specific for the person who has lived on adrenaline so long their adrenals are “burnt out” and they now feel exhausted, not wired. Topically, licorice is used for eczema, psoriasis, contact dermatitis, poison ivy, and canker sores. The root has some antibacterial and antiviral activity, which may be of use for serious infections including Epstein-Barr, herpes, hepatitis, and HIV. It appears to balance estrogen levels in women (perhaps through phytoestrogen activities; licorice is a bean family plant) and inhibits the conversion of testosterone to dihydrotestosterone in men (helping hair loss and the prostate). Licorice is 50 times sweeter than sugar and is often used to flavor or mask less tasty herbs. Use: Tea, tincture, capsule, sometimes true licorice candies (although they are weaker). Bear in mind that traditional Ayurvedic and TCM practitioners tend to use licorice in blends, not solo. Americans like to use single herbs, but we are babies in our understanding of medicinal plants. You don’t need to go overboard with licorice to receive its benefits. One or two DGL tablets can be chewed before meals for ulcers and acid reflux. Cautions: DGL is completely safe, even in high doses. Whole licorice is fine for the average person, in reasonable doses. It may raise blood pressure. This is rare and usually accompanied by insane doses (several boxes of Panda licorice candies per day, anyone?) or concentrated extracts, but I have seen it happen in small blended teas (ie, Yogi brand, which flavors almost all of its teas with licorice) in sensitive people. Very high (50 g, which is equivalent to 100 capsules) doses can cause water retention, elevated blood pressure, low potassium levels. Use caution if you already have hypertension, kidney or liver problems, diabetes, or heart disease. Avoid taking the whole root form with thiazide diuretics, stimulant laxatives, or other drugs that cause potassium loss. Taking licorice may make you more sensitive to digitalis and cortisol.

“The Bitters” Artichoke leaf (Cynara scolymus) & Gentian root (Gentiana lutea)

Turn on the Digestion Switch G-S Bitter herbs increase digestive juices from the first touch on the tongue. Saliva increases. Signals make their way down to the pancreas, encouraging more digestive enzyme production. Artichoke leaf also makes its way to the liver, which in turn converts more cholesterol to bile. This liver action promotes detoxification, reduces cholesterol, AND encourages more bile secretion (cholagogue) with which to emulsify and help digest fats. In addition, artichoke leaf has been shown to inhibit cholesterol synthesis in the liver. Artichoke leaf further protects the liver by preventing glutathione loss. Gentian is not as well researched as artichoke leaf; however, historically it is the premier digestive bitter, and it also has some cholagogue effect. Use: All digestive bitters work best if you actually taste them, although they still have some action in pill form. Tincture and cordials are most popular, although theoretically you can take them as a tea. But, do you really want to drink 4-8 oz of bitter brew? For digestion, only a small amount is needed to produce the desired effect. Pills are ok but not as effective. Caution: Bitters stimulate digestion. Don’t take them on an empty stomach or you may feel hungry and weak. Don’t use bitters if you have a bile duct blockage, and work with a practitioner if you have gallstones. Stick to low doses for gentian; high doses for extended periods of time can harm digestion and cause headaches. Though bitters may indirectly help protect against ulcers, do not use in acute ulcers. Gentian is a small plant with specific growing needs. Artichoke is easily cultivated—in fact it was one of the first plants the Europeans domesticated. I prefer artichoke leaf to gentian for ethical reasons. Other Bitters: Skullcap, catnip, chamomile, motherwort, blue vervain and lemon balm are mild relaxing bitters. Schizandra’s five flavors help stimulate digestion; the herb also stimulates and protects the liver. Dandelion leaf & root and burdock root are simple bitters (and diuretics). Berberine-rich goldenseal, goldthread, coptis, Oregon grape root, and barberry. Bitter orange peel and Angelica are often used in bitter formulas. Wormwood (the ingredient in absinthe) is the queen of bitters, just a little in a formula will do it, and it is also moderately toxic. Watch out For: Many traditional Swedish Bitter formulas contain stimulant laxative herbs—hardly appropriate for daily use! Avoid bitter formulas that contain aloe latex, cascara sagrada, buckthorn, senna. Rhubarb and yellow dock are milder laxatives that have other digestive properties (may be ok in daily bitter/digestive formulas).

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