HomeGrown Herbalist School of Botanical Medicine



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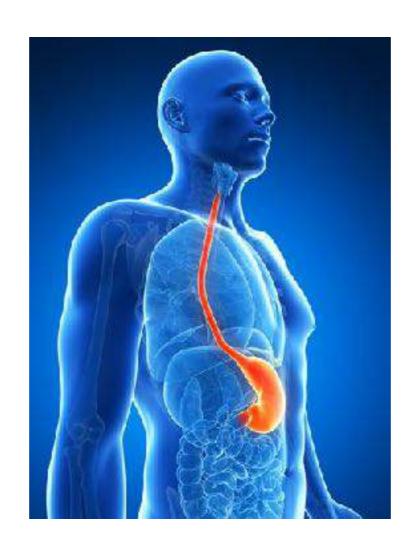
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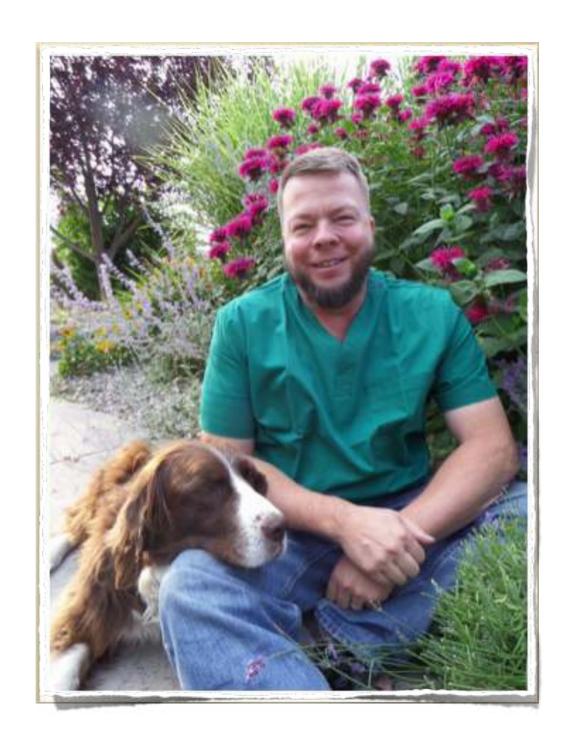
run with scissors. Don't immerse your head in a bucket of water for a prolonged period of time. Don't give your bank account number to deposed Nigerian princes on the internet. Don't stick your finger in a pencil sharpener. Don't read very small type without proper magnification......



Teeth To Tummy: Herbal Interventions For The Upper Digestive System

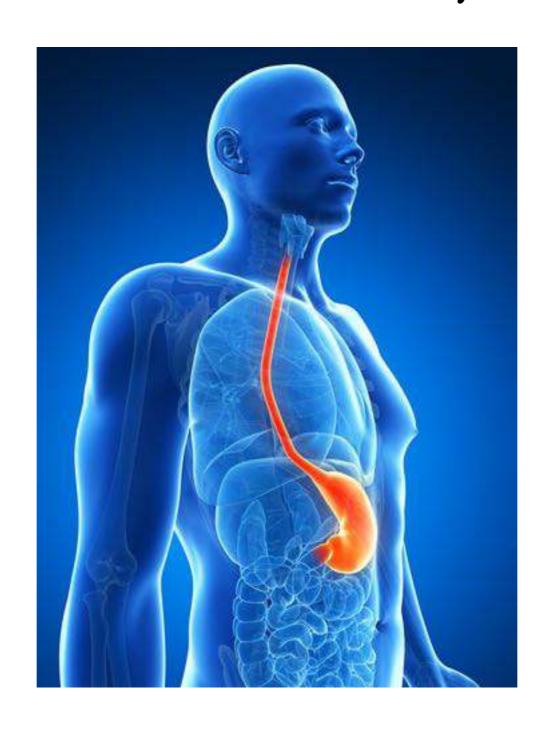


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The Upper Digestive System Section I: Anatomy



The Teeth

The teeth serve to reduce food into small enough pieces to pass easily down the esophagus. They also mechanically break down the cell walls of plant material so that the cell contents can be digested.

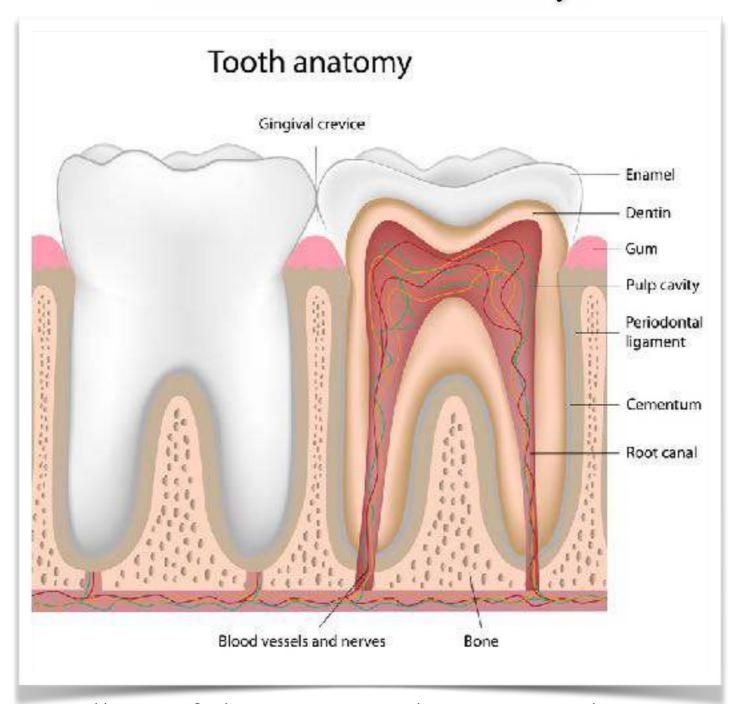
Teeth in other species are extremely specialized to perform a dizzying variety of dental tasks from killing prey, to defense, to digging, to gnawing down trees etc...



Animal Teeth



Tooth Anatomy



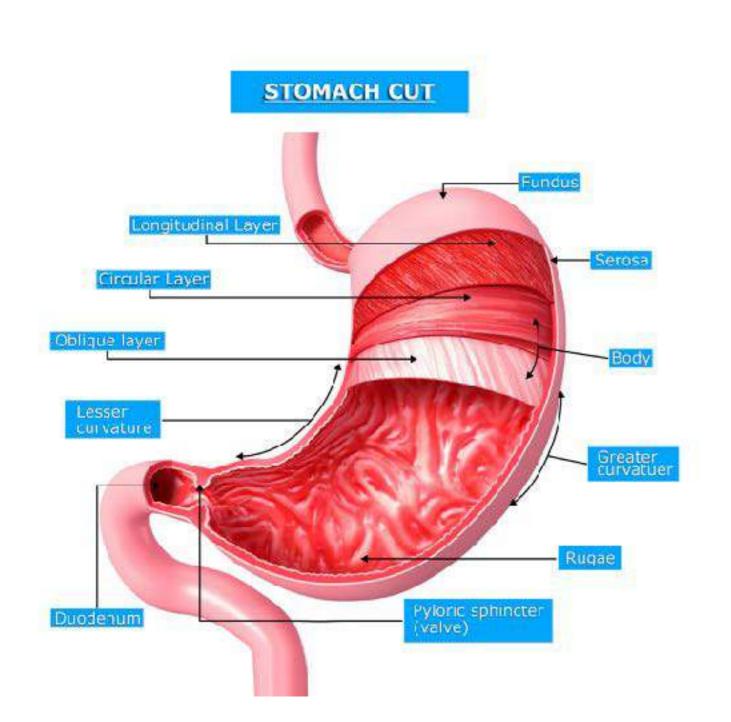
Regardless of their exotic shapes, tooth anatomy remains essentially the same.

The Esophagus



The esophagus is a soft, muscular tube that conducts food from the mouth to the stomach by rhythmic contractions called peristalsis. At both the top and bottom of the esophagus, there is a sphincter muscle which can open or close the conduit.

The upper esophageal sphincter keeps air from entering the digestive tract. The lower esophageal sphincter protects the esophagus from the acids and enzymes produced in the stomach.



The Stomach

The stomach serves two functions. First and foremost, it is a storage container for ingested food.

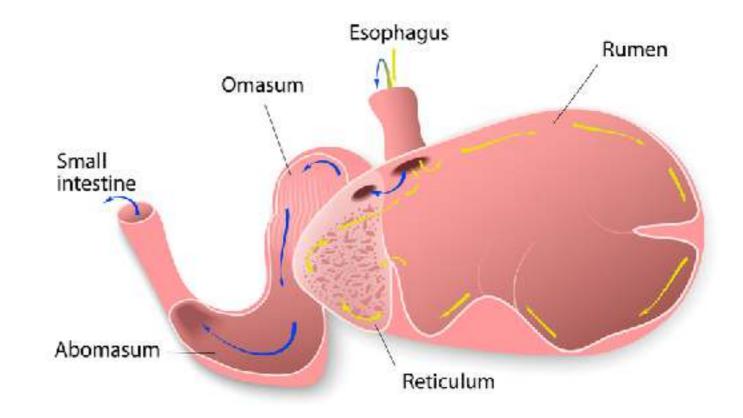
The second purpose of the stomach is to disinfect food and begin the process of digestion by secreting hydrochloric acid and enzymes that break down protein (proteases).

Goblet cells lining the stomach secrete a layer of mucus to protect the stomach lining from the acid and enzymes.

Herbivores

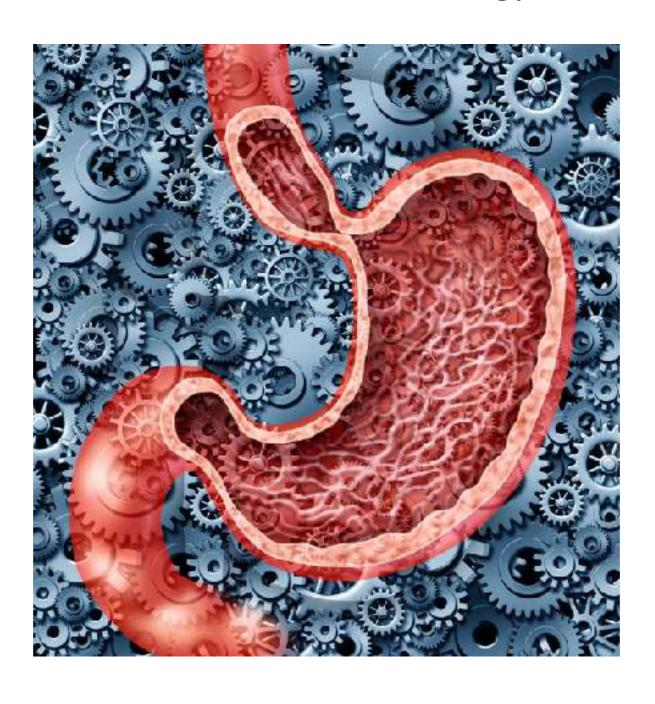
Carnivores' and omnivores' stomachs are essentially identical to human stomachs. However, animals that eat grasses and leaves for a living have a unique problem which is that mammals produce no enzymes that can break down plant cell walls. As a result, herbivores have developed some unique and creative workarounds to solve this problem.

RUMINANT STOMACH



The Upper Digestive System

Section II: Pathology

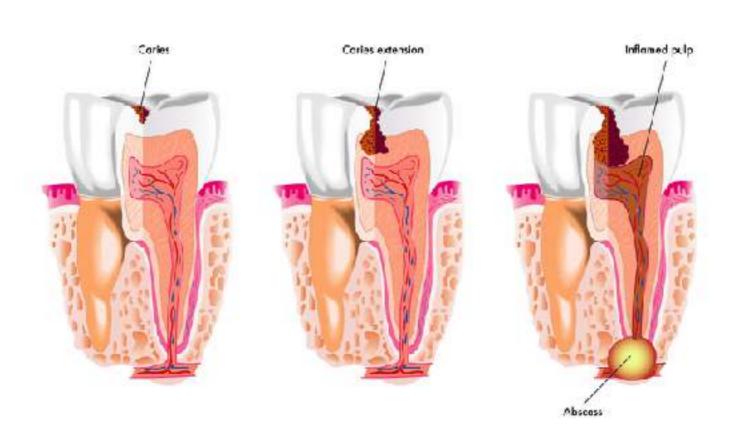


Diseases of the Mouth

Cavities
Gingivitis
Periodontal Disease
Canker Sores
Cold Sores

Dental Cavities

TOOTH DECAY



Dental caries or "cavities" are caused by acids produced during the bacterial fermentation of food particles on the teeth. The acids break down the enamel and, eventually the dentin. Once the pulp cavity is exposed, bacteria can enter the pulp and the root canal and cause a tooth abscess. Though herbs like Horsetail can help to strengthen and repair teeth, the prevention via careful oral hygiene is the best solution.



Gingivitis



Gingivitis is an inflammation of the gingiva or gums. It is caused by persistent bacterial biofilm on the teeth and gums. Regular oral hygiene will usually resolve the problem. Failure to address it can lead to more serious periodontal disease.

Periodontal Disease

Left untreated, gingivitis can lead to serious infections of the periodontal space. These bacterial infections can cause significant bone destruction and lead to tooth loss. The bacteria in these lesions can also enter the blood stream and travel to the heart, liver or kidneys causing serious infections in those organs as well.



The stages of periodontal disease



1. Healthy



Gingivitis



Periodontal pockets



Periodontitis

Herbal Interventions for Dental Issues

These formulas swished in the mouth then swallowed can be very helpful.

Periodontal

Calendula Flower
Comfrey Root
Devil's Claw Root
Echinacea

Tooth Abzez

Calendula Cleavers Echinacea

Canker Sores



Canker sores are benign mouth ulcers. The cause isn't completely understood. People that suffer from canker sores can sometimes identify triggers such as nutritional or stress events.

Treatment focuses on managing the discomfort and promoting healing.

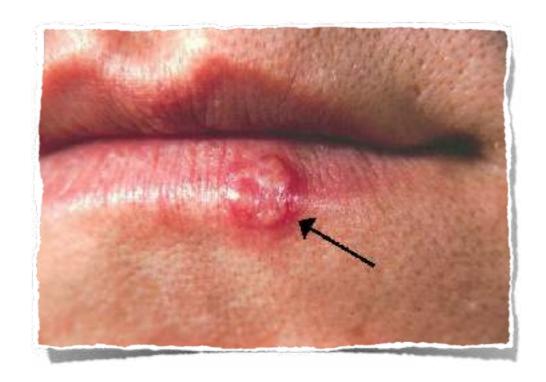
Herbal Interventions for Canker Sores

Marshmallow or Comfrey topically can sooth the sores and promote healing.



Marshmallow

Cold Sores



Cold sores (a.k.a. fever blisters) are caused by the *Herpes simplex* virus. The virus remains dormant in the facial nerves until the immune system is stressed or the skin is compromised.

Herbal Interventions for Cold Sores

The amino acid L-lysine is an important nutrient for decreasing the duration and severity of the sores.

Lemon Balm topically and internally inhibits the virus and is a great cold sore remedy.



Diseases of the Esophagus & Stomach

Indigestion
Acid Reflux
Hiatal Hernia
Gastric Ulcer
Foreign Bodies
Vomiting

Indigestion/Dyspepsia

(a.k.a. "I can't believe I ate the whole thing!")

Indigestion is the upper abdominal discomfort we feel when we overeat or eat foods to which we aren't accustomed. It is often accompanied by bloating, belching, nausea, heartburn or prolonged stomach emptying time.



Herbal Interventions for Indigestion

Stomach Bitters

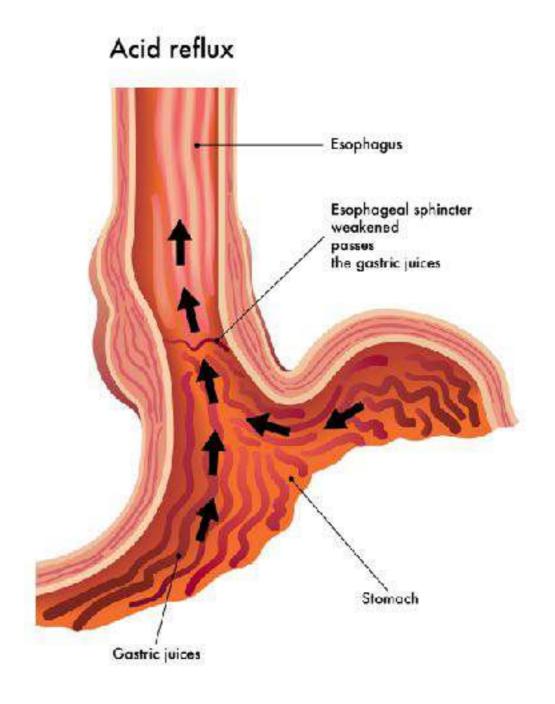
Gentian Root/Flower/Aerial Parts
Ginger Root
Turmeric Root
Yellow Dock Root

Stomach Calm

Parsley Leaf,
Peppermint Aerial Parts
Marshmallow Root
Oregon Grape Root

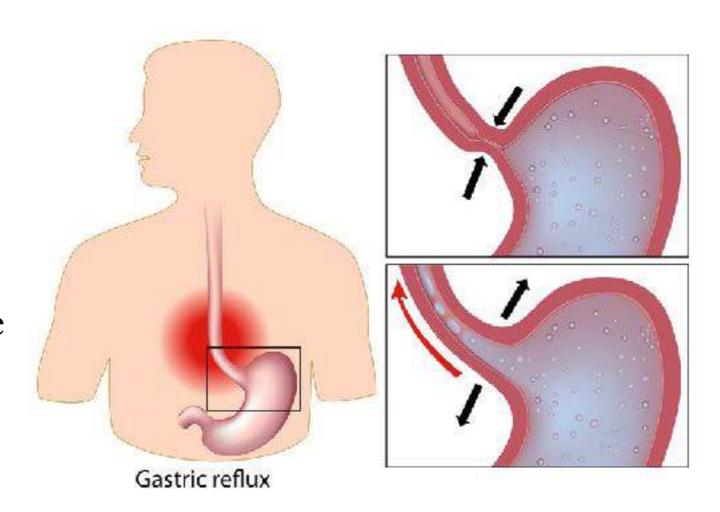
Heartburn (Acid Reflux Disease)

Acid reflux occurs when stomach acids pass through the lower esophageal sphincter into the esophagus.



Understanding Heartburn

When food enters the stomach, the stomach, the stomach produces hydrochloric acid, and pepsin to kill germs and begin protein digestion. When acid levels are high enough, the pylorus opens to allow food to leave the stomach and enter the small intestine.

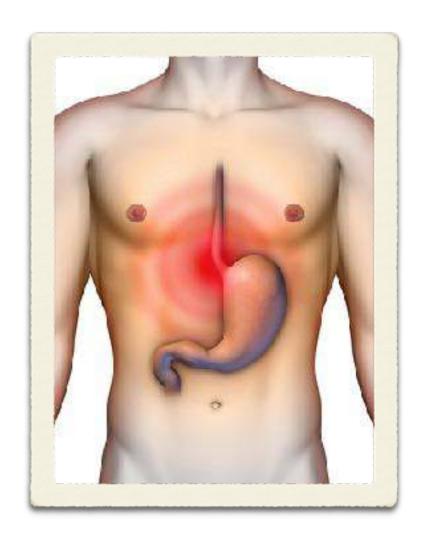


If acid levels fail to reach the necessary levels, the food in the stomach begins to ferment causing bubbling and reflux of the stomach acid into the esophagus.

Understanding Heartburn

So, ironically, acid reflux is usually caused by too little stomach acid rather than too much. Antacids and pharmaceuticals that decrease acid production can result in short-term relief of symptoms but, from a chemical and digestive standpoint, they actually make the problem worse.

For many people, taking apple cider vinegar can be helpful. The vinegar increases the acid level of the stomach, lowers the pH and thus accelerates gastric emptying. The group of herbs called "stomach bitters" can also be very helpful.



Herbal Interventions for Acid Reflux/Heartburn

Stomach Bitters

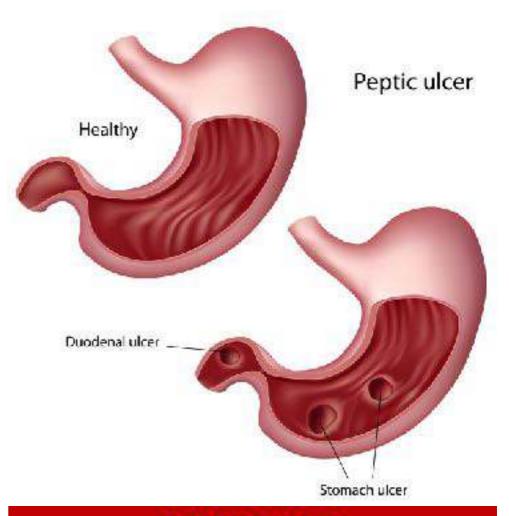
Gentian Root/Flower/Aerial Parts
Ginger Root
Turmeric Root
Yellow Dock Root

Digestive Support

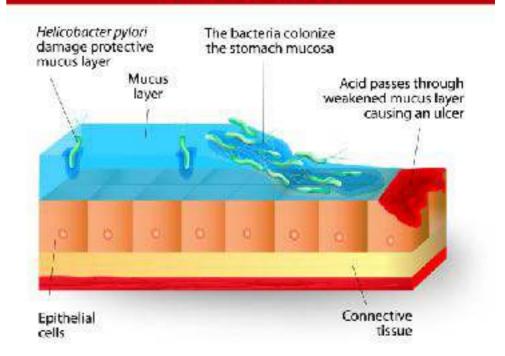
Chamomile Flower
Dandelion Root
Ginger Root
Licorice Root
Marshmallow Root
Peppermint Aerial Parts
Psyllium

Gastric Ulcer

An ulcer is a wound on the mucosal lining of the stomach or (more commonly) the duodenum. These defects are often caused by infections of the bacterium *Heliobacter pylori*. The bacteria damage the protective mucus that lines the stomach. Without the protection provided by the mucus, the stomach is burned by its own acid and proteolytic enzymes.



PEPTIC ULCER



Herbal Interventions for Ulcers

Stomach ULCR

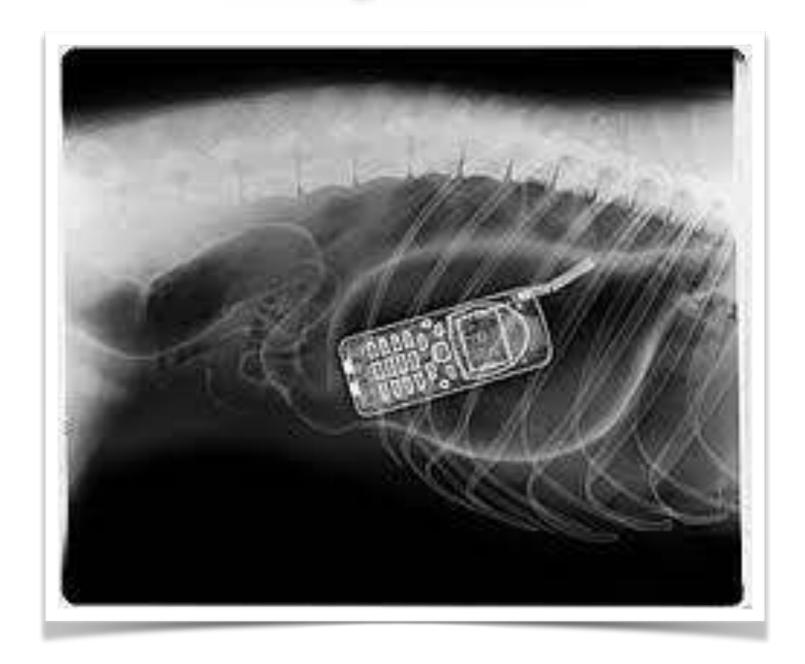
Calendula Flower
Gotu Kola Aerial Parts
Licorice Root
Marshmallow Root
Plantain Leaf
Turmeric Root

Digestive Support

Chamomile Flower
Dandelion Root
Ginger Root
Licorice Root
Marshmallow Root
Peppermint Aerial Parts
Psyllium

The addition of **Comfrey** to these formulae would be of great benefit as well.

Foreign Bodies



Yeah...Dogs Are Dumb.

Foreign Bodies

Foreign bodies that are swallowed can cause serious problems in the digestive tract. This tends to be a problem mostly among children and puppies who are less discriminating about what they put into their mouths than their adult counterparts. Cats can also get foreign bodies in the form of hairballs from self-grooming. Cats also seem to have a bit of an obsession with sewing needles and thread.

If a foreign body becomes lodged in the bowels, it must be removed, usually surgically or with an endoscope. In cats with hairballs, herbs high in mucilage (slippery elm, marshmallow etc.) as well as high fiber foods (pumpkin) can sometimes help. If not, there are commercial preparations that will do the trick.

Animals with foreign bodies usually vomit and pass no stool but often have no other symptoms early in the process. As things progress, they will sometimes have abdominal pain. Untreated bowel obstructions will be fatal.

Vomiting



Vomiting is the body's way of expelling the contents of the stomach. Unpleasant as it is, it's usually a good thing. The body reacts to poisons, spoiled food and other insults by forceful contractions of the abdominal muscles which compress the stomach and expel its contents.

Herbal Interventions for Nausea

Peppermint
Chamomile
Ginger
Parsley Leaf
Angelica Root or
Seed

The Upper Digestive System The Plants



Peppermint

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Peppermint

Mentha piperita



Peppermint is wonderful for stomachaches and nausea. The volatile oils of the plant, anesthetize the stomach lining and stimulate secretion of bile and digestive juices. Peppermint can also be helpful with ulcers of the digestive tract. The plant has no contraindications and can be taken safely during pregnancy to allay morning sickness. The aerial portions of the plant are used. Cold infusions are preferable to hot infusions in order to preserve the volatile oils. The aerial parts are used.

Parsley

Petroselinum crispum





Parsley is another excellent plant for calming an upset stomach and bowels. It is also beneficial for flatulence and halitosis. Any of the common cultivars are similarly useful. Parsley is a biennial. The greens are the medicinal component for digestive complaints. Do not use during pregnancy.

Cloves

Syzygium aromaticum

Cloves are antimicrobial and also have a local anesthetic action (anodyne). As such, they are excellent for oral and dental infections and pains. They were used historically for tooth pain and as an oral anti-septic, applications for which cloves excel.

Cloves also increase stomach acid and aid digestion. They also decrease flatulence and gas pains in the gut.





Yarrow

Achillea millefolium



Yarrow has a number of beneficial effects on the digestive organs and tissues. The root is very good topically for dental pain or canker sore pain.

Yarrow also has a good spectrum of activity against numerous bacteria. The leaf and flower will stop bleeding and are useful for bleeding ulcers. Yarrow also has some vulnerary properties and accelerates healing of digestive ulcers and mouth sores.

Do not use during pregnancy.

Marshmallow, Mallow & Hollyhock

Marshmallow *Althea officinalis*



Mallow *Malva neglecta*



Hollyhock *Alcea spp.*



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Marshmallow, Mallow & Hollyhock

These three cousins contain abundant mucilage a slimy, soothing substance that calms and soothes irritated mucus membranes anywhere in the body. They can be employed anywhere in the digestive system from sores in the mouth, to ulcers in the stomach to irritated bowels. Leaf and root are both used though the root contains more mucilage.

Because of the high mucilage content, these plant do better with cold infusion than hot infusion.

There are no contraindications.

Comfrey

Symphytum officinale

Comfrey, like marshmallow and her cousins, contains abundant mucilage so it has all the same soothing demulcent properties. However, comfrey also contains a chemical called allantoin. Allantoin is a powerful cell proliferant (vulnerary) that markedly increases the rate of cell division and healing. This combination of attributes makes comfrey an ideal medicine for lesions anywhere in the digestive tract from mouth sores to ulcerative colitis.

There is some controversy about the internal use of comfrey. I don't recommend its use internally during pregnancy, in infants or in persons with liver problems.

Both leaf and root are medicinal. The root is stronger.





Calendula Calendula officinalis



Calendula has excellent antimicrobial, anti-inflammatory and vulnerary properties. It is excellent as a mouthwash for mouth sores, or dental infections. It is also very good for gastric ulcers, particularly when used with comfrey. One study showed that Calendula markedly improved the healing action of comfrey when the two were used together. Calendula is also helpful for indigestion. The flower is the medicine.

Do not take during pregnancy.

Catnip

Nepeta cataria

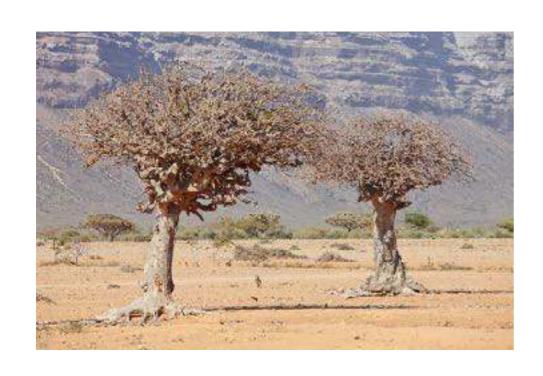
Catnip is also in the mint family (Lamiaceae). Like its mint cousins, it is soothing and calming to the stomach and bowels. Catnip is also mildly calming and sedating to the nervous system. Catnip is an excellent remedy for colicky babies, stomachache or diarrhea, especially in children. Some have reported to me that catnip drunk regularly by a nursing mother will also calm a colicky little one. More research on this question is needed. Catnip is intoxicating to felines.

There are no contraindications...unless you are a cat, in which case you shouldn't drive after using it.

The entire upper portion of the plant can be used. This is a very invasive species and will soon over run any space it's planted in. Plan ahead or use a patio pot.



Myrrh Commiphora molmol





Myrrh has excellent antibiotic and anti-inflammatory properties and is useful as a mouthwash or mixed with toothpaste for periodontal disease and other oral infections. Use of the undiluted tincture can cause a burning sensation and irritation of the mouth.

Myrrh lowers blood sugar and should be used with caution in diabetics that are already taking meds to lower blood sugar.

Ginger Zingiber officinale



Ginger is effective for controlling nausea. It can be taken fresh or as a tincture or tea. Some studies suggest it may have mutagenic properties in embryos. It's also an emmenagogue which is another good reason not to risk it during pregnancy. There is a long history of women using ginger for morning sickness and, used in moderation, it's probably fine. That said, I see no reason to risk it. Take some mint instead. Also don't take ginger if you're on blood thinners.

German Chamomile

Matricaria recutita,

Chamomile is a calming nervine that relaxes and soothes tensions throughout the body. It is effective for digestive issues in general and particularly effective when those issues are brought on by tension, stress or anxiety.

In the upper digestive tract it benefits stomachaches, hiatal hernias, gastric reflux and ulcers. Its ability to calm physical symptoms as well as their underlying psychological roots makes it a wonderful ally to the herbalist.

The flower is the medicine. Don't take during pregnancy or if allergic to the plant.



Meadowsweet

Filipendula ulmaria

(formerly Spiraea ulmaria)



Meadowsweet is a bit of a contradiction. It contains aspirin-like salicylates and yet is very soothing to the mucus membranes of the gut and is an excellent remedy for nausea, stomachache, heartburn and even ulcers. It's also very good for diarrhea, especially in children.

The aerial parts are used. No contraindications other than for those with salicylate sensitivity. This is a beautiful ornamental. Plant some in your yard.

Gentian

Gentiana spp.



The various species of gentian are classic "stomach bitters". A dose of the tincture or a cup of tea 1/2 hour before eating will do wonders for indigestion, bloating and flatulence. They improve appetite and accelerate emptying of the stomach by stimulating production of saliva, digestive juices and bile. The root is the medicine (or entire young plants). No contraindications.

Angelica Angelica archangelica



Angelica root or seed is a an excellent stomach bitter and has a sedating and calming effect on the stomach lining. It also has excellent antispasmodic properties. All in all, a great solution for irritated or cramping stomach or bowels.

Do not take during pregnancy. Also, there are some toxic look-alikes in nature. Be careful to get a certain ID before harvesting.

Angelica is a big, beautiful plant. Buy some seed and enjoy it in your yard rather than trying to sort out the wild stuff.

Thanks For Listening!



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