

Astringents are herbs that tighten and tone soft, swollen, loose or spongy tissues and arrest excessive mucus secretion, bleeding or drainage. Herbs with astringent properties can be recognized by their slightly bitter flavor and the puckering, drying sensation they produce in the mouth. If you've ever eaten a persimmon or an apple that isn't fully ripe, or if you've drunk strong unsweetened green or black tea, you've experienced the tightening, drying quality of astringents.

Astringents owe their properties to the presence of compounds known collectively as tannins. These compounds are commonly found in barks, stems and roots where they may play a role in preventing insect damage and diseases in plants.

Tannins get their name from their ability to tan hides and turn them into leather. They work by removing the moisture from the gelatins and proteins in animal skins. When they combine with proteins they make them resistant to the action of proteolytic (protein digesting) enzymes. Proteolytic enzymes are secreted by bacteria to break down cells. This means that tannins also have a mild antiseptic quality, which helps them preserve leather from microbial decay.

The same qualities that have made tannin-bearing plants useful for preserving hides and pelts are the qualities that make them useful in the treatment of injuries and damaged tissues. When they come in contact with the skin or mucus membranes, they tighten the tissue, reducing fluid retention and drainage, and form a protective layer that is resistant to infection. Many women have used astringents for cosmetic purposes because they help tone the skin, reduce oily secretions, reduce wrinkles and aid the complexion.



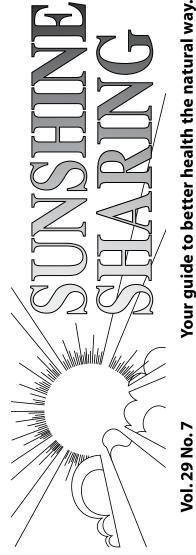
Tannins can also help to neutralize many plant toxins and animal venoms, which is why astringent herbs are excellent remedies to apply topically to insect bites and stings, snake and animal bites and skin rashes caused by poison ivy or oak.

Tannins help to stop bleeding, which makes them useful remedies for cuts and wounds, bleeding in the digestive, respiratory and urinary passages. They can also help to heal bleeding gums in gingivitis, varicose veins and hemorrhoids.

Internally, astringent herbs help to reduce excess sinus drainage, shrink nasal polyps, stop urinary incontinence, heal ulcerations and irritations in the GI tract and tone up

the intestinal membranes to reduce leaky gut. They can also be used to help arrest diarrhea or other excessive discharges.

In this *Sunshine Sharing* we'll discuss how to use astringent herbs in greater detail and cover the specific uses for five important astringent herbs— white oak bark, bayberry root bark, uva ursi leaves, yarrow leaves and red raspberry leaf.



Important Notice

The information in *Sunshine Sharing* is for educational purposes only and should not be used to diagnose and treat diseases. If you have a health problem, we recommend you consult a competent health practitioner before embarking on any course of treatment.

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General Uses for Astringents

The following is a general overview of the uses for astringent herbs. It covers some general instructions on how to use astringents for healing and more detailed information on the health problems for which astringents can be used.

Using Astringents

Astringents can be taken internally in capsules, but they are often more valuable when used in a decoction. A decoction is made by simmering the herb in water for 20-30 minutes. Although tannins are water soluble, they are often bound up in barks or roots and a decoction helps to extract them. Use about 1 teaspoon or the contents of 3-4 capsules per cup of water.

Decoctions can be taken internally or applied topically as a compress or fomentation. Simply soak a cloth, cotton ball or gauze pad in the decoction and apply it over the affected area. Leave in place for at least 20-30 minutes.

Astringents can also be used as poultices. Mix the herb powders with a little aloe vera or silver gel to make a thick paste. Apply this topically and cover it with a bandage. Change it every 4-8 hours.

Healing Minor Injuries

When tissues get damaged they become inflamed. Inflammation is characterized by heat, swelling, redness and pain. By tightening the tissues, astringents help to reduce the swelling aspect of inflammation. Astringents are also styptic, meaning they help to stop bleeding. They do this because tannins aid the clotting of blood. This makes astringent herbs excellent remedies to apply topically as a compress, fomentation or poultice for any injured tissue that is swollen and/or bleeding.

Yarrow, calendula and bayberry are particularly helpful for cuts and bleeding, while white oak bark, bayberry rootbark and uva ursi are excellent for reducing swelling.

Treating Bites and Stings

Snake and insect venom is usually composed of foreign proteins that are toxic to tissues, causing severe damage and inflammation. Because tannins cause proteins to precipitate (fall out of solution) they can help to neutralize these venoms. Just about any astringent can be applied topically as a poultice or compress to help heal insect bites and stings, but plantain, yarrow, gumweed and uva ursi are particularly effective.

In a wilderness first aid situation, any astringent herb can be applied topically as a poultice to poisonous snake or insect bites to help reduce the swelling and neutralize the venom. However, this should be done as a first aid measure while seeking appropriate medical care.

Neutralizing Plant Poisons

Tannins also precipitate substances found in plants called alkaloids. Taken internally, tannins not only combines with the alkaloids to neutralize them by forming insoluble tannates, it also constricts the lining of the stomach and intestines, helping to prevent absorption. Many native peoples have made use of tannin-bearing plants to counteract toxic plants and tannins have even been used in orthodox medicine for certain types of alkaloid poisonings.



Tannin-bearing plants have

also been used externally in treating poison ivy and poison oak. A fomentation, using a decoction of the herb, is applied over the affected area. The most effective remedies here are white oak bark and uva ursi.

Healing the GI Tract

Tannins aren't readily absorbed into the body, so when they are taken internally, their primary action is on the intestinal membranes. Internally, they slow down the peristaltic action of the colon, tone up intestinal membranes reducing leaky gut and help coagulate mucus in the stomach and digestive tract to help expel it. If there is ulceration or bleeding, they can help to stop bleeding and heal the ulcerations.

Unfortunately, astringents also inhibit stomach and intestinal secretions, which means they interfere with digestion, particularly the digestion of proteins. For this reason, it's wise to take herbs with tannins in between meals when using them internally. Some of the best astringents for toning and healing the GI tract are bayberry rootbark, yarrow, red raspberry and cinnamon. Astringents that can help arrest diarrhea and GI tract bleeding include white oak bark, bayberry rootbark and uva ursi. Red raspberry is a mild astringent for diarrhea in children.

Reducing Excess Mucus Discharge

Sinus discharge and other forms of mucus accumulation are congealed (precipitated) by the action of astringent herbs. This causes the mucus to lose its sticky nature, making it easier to expel. Astringents can be used as nasal washes or snuff, or as gargles for this purpose. Some, like bayberry rootbark, also help when taken internally.

Cautions Concerning Tannins

Tannins have been widely used in regular medicine as a topical treatment for bedsores and minor ulcerations. They have also been used extensively in the treatment of burns and in suppositories for treating hemorrhoids. However, medicine does not use whole plants. Instead, they use purified forms of tannin.

Pure tannic acid can exhibit toxic effects when used long term. In humans, these include liver damage, but this may be due to an impurity known as digallic acid. Large doses of pure tannic acid causes gastric irritation; however the small doses found in many plants, such as green or black tea, potatoes and persimmons don't cause any harm.

However, we recommend that strong astringents like white oak bark or uva ursi be used internally for only short term (2-6 weeks) therapeutic purposes and that they be taken in between meals, so as to not interfere with digestion.

Major Astringent Herbs

White Oak Bark: Remedy for Varicose Veins, Gingivitis, Hemorrhoids and More



Oak trees are highly resistant to insect attack and fungal diseases because of the high tannin content in their barks. White oak bark is the remedy most commonly used in herbal medicine, but the bark, leaves and acorns of

all oak trees contain varying amounts of tannins and can be used for similar purposes. White oak bark is also high in minerals like calcium, iron, magnesium, manganese, phosphorus, potassium, selenium and zinc as well as vitamins B-1, B-2, B-3, B-12 and C, so it can be very useful in aiding the healing of injured tissues.

White oak bark is used to strengthen capillary walls and veins to stop bleeding. A decoction can be applied topically as a fomentation or compress to help shrink varicose veins and spider veins. The decoction can also be used as a mouth rinse to help bleeding gums and loose teeth. A mixture of equal parts white oak bark and black walnut bark powder can be used as a tooth powder to heal gingivitis and strengthen tooth enamel.

White oak bark is helpful for treating hemorrhoids and anal fistula. You can take one capsule twice daily in between meals, but it works even better if you apply it topically. Mix several capsules of white oak bark powder into a *healing salve* containing herbs like chickweed, comfrey root, goldenseal and marshmallow, some silver gel or a *vein-toning cream* containing butcher's broom and horse chestnut. Apply this to the hemorrhoid or anal fistula several times a day.

A decoction of white oak bark can be used as a gargle to treat sore throats and tonsillitis. It blends well with echinacea and bayberry rootbark for this purpose. The decoction can also be used on burns, irritated skin from poison ivy or oak or minor injuries. The powdered bark can also be sprinkled on skin that is oozing or damp, such as damp eczema, to dry the affected area.

One or two capsules per day can be taken internally between meals to help shrink an enlarged spleen, to help arrest severe watery diarrhea or to heal intestinal ulcerations. However, oak bark should not be taken internally for more than 4-6 weeks at a time.

Bayberry Rootbark: *Powerful Styptic, Mucus Buster and Respiratory Remedy*

The bark from the root of bayberry is a powerful astringent that also has an aromatic quality. It is one of the best astringents for internal use because it does not overly dry up digestive secretions. It's also one of the best astringents for internal bleeding because it contains myricerone, a triterpene which helps tone blood vessels and reduce bleeding. Two capsules each of bayberry and



capsicum, taken with slightly warm water, is an excellent remedy to help with bleeding problems like postpartum bleeding, spotting between periods, heavy menstruation and nose bleeds.

Bayberry is also one of the best astringents for mucus congestion, colds and coughs. It helps congeal and loosen mucus and it also helps stimulate its expulsion. It was traditionally combined with aromatics like ginger and capsicum for this purpose. Taking one capsule of bayberry and one capsule of ginger on an empty stomach every two hours is a great way to remove mucus from the digestive tract and dry up drippy, watery sinus secretions.

The decoction makes an excellent gargle for sore throats, post nasal drip and bleeding gums. The powder can also be applied topically as a poultice to bleeding wounds, oozing sores and insect bites and stings.

Uva Ursi: Urinary Tract Infections, Incontinence and Female Problems



Uva ursi, and its related species, manzanita, are wonderful astringents for the urinary system. They contain gallotannins, which are absorbed in small amounts and excreted in the urine. This allows them to astringe or tone-up urinary passages. This makes them useful for urinary incontinence and dribbling, as well as excessive urination in diabetes. Uva ursi may also be helpful when blood is detected in the urine.

Uva ursi also contains a phenolic glycoside called arbutin, which turns into hydroquinone in the urinary tract. Hydroquinone is antimicrobial, anti-inflammatory and mildly astringent, which makes uva ursi a good remedy for urinary tract infections (UTIs). However, it only works when the urine is alkaline. Cranberry, on the other hand, works only in acidic urine.

Uva ursi works best for UTIs as a tea or infusion, using ½ teaspoon or about 2-3 capsules per cup. Pour boiling water over the herb powder and steep for about 3-5 minutes. This extracts less of the tannins and more of the arbutin making it better for internal use. For UTIs, it can be combined with herbs that contain the alkaloid berberine, like goldenseal and Oregon grape, as berberine helps turn the urine more alkaline, as well as aiding in fighting the infection.

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Additional Help and Information

For more information about the healing properties of astringent herbs, or to find the remedies discussed in this issue of Sunshine Sharing, contact the person who gave you this newsletter. You can also consult the following resources:

The Modern Herbal Dispensatory by Steven Horne and Thomas Easley *Advanced Treatise in Herbology* by Edward E. Shook *Herbal Constituents* by Lisa Ganora This issue of Sunshine Sharing is provided by:

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Uva ursi may also be helpful for the female reproductive organs, aiding with problems like vaginal infections, leucorrhea and uterine prolapse. Capsules work well for this, but should be taken in between meals.

Uva ursi should not be used by itself internally for more than 1-2 weeks at a time. Also, don't be alarmed if uva ursi turns the urine green. It's normal when taking the herb.

Because of its strong astringent action, uva ursi is also useful for other problems where astringents are useful, such as diarrhea and bleeding in the intestinal and digestive tract, insect bites, bee stings and poison ivy or oak.

Yarrow: Powerful Styptic, Wound Healer, Urinary and Lymphatic Remedy



Yarrow gets its Latin name *Achillea* from the famous mythological Greek warrior, Achilles, who was said to have carried yarrow into battle with him to staunch soldier's wounds. It has a long history of use in treating battle wounds in Europe, China and the Americas.

The astringent properties of yarrow are found primarily in the leaves, which contain tannins and alkaloids like stachydrine and achilleine. These alkaloids are absorbed into the blood stream and act as hemostatic agents to reduce bleeding anywhere in the body. At the same time, yarrow improves circulation, reduces inflammation, has a mild antimicrobial effect and even helps reduce pain. This is why it is an ideal remedy for treating wounds and injuries.

Applied topically or taken internally, yarrow can help to stop even severe bleeding, including deep arterial bleeding. Applied topically, it reduces pain, prevents bruising and speeds healing of the tissues. It can also help with insect bites and stings.

Yarrow capsules can be helpful for the urinary and lymphatic systems when taken with plenty of water. It helps to relieve nephritis (kidney inflammation), fight UTIs and aid lymphatic flow. The decoction and capsules can also be helpful for mild diarrhea and digestive upset.

An infusion of yarrow flowers, on the other hand, is helpful as a diaphoretic to induce perspiration and reduce fever. It is an excellent remedy for colds and flu with fever.

Raspberry Leaf: Gentle Astringent for Children and Pregnant Women



The leaves of the red raspberry are mildly astringent and have a soothing nature, so they don't upset the stomach or GI tract and are suitable for long term use. It can safely be taken for many months by both children and pregnant women.

Red raspberry leaf has only a small amount of tannin, but is rich in vitamins and minerals such as C, A, calcium, phosphorus, magnesium, manganese and iron. It contains some alkaloids, which have tonic effects on the abdomen, uterus and reproductive organs.

Raspberry leaf is often employed as an aid to reproductive health in women. Pregnant women, in particular, find red raspberry helpful. It relieves nausea and morning sickness, supplies iron and minerals to support a healthy pregnancy, and tones the uterine muscle preparing the mother for labor and delivery. It can be taken in capsules, but also works well as a strong tea, especially when combined with other tonic herbs like nettles and alfalfa. It also can help with heavy menstrual bleeding and menstrual cramps.

Raspberry leaf is also a great remedy for digestive upset in children. It can help to settle the stomach and gently tone up the bowel to relieve nausea and diarrhea. A gargle made of raspberry leaf tea has long been employed to treat sore throats and canker sores. It can also help heal ulcerations both topically and internally.

These are just a five of the many herbs that have astringent properties. Others include plantain, sage, cinnamon, calendula, witch hazel, cinquefoil, wild geranium, agrimony, lady's mantle, gumweed and blackberry root. Whatever the herb just remember to consider the healing power of astringents.