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Medicinal uses of Mullein Root

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Mullein is a member of the Scrophulariaceae family. The Latin binomial is *Verbascum thapsus*. There are numerous common names for this plant including mullein, great mullein, candlewick, our lady's candle, velvet dock, velvet plant, flannel-flower, Jupiter's staff, blanket leaf, beggar's blanket, woolly mullein, Quaker's rouge, Aaron's rod, punchon, and gordolobo.

HABITAT, LOCALITY, AND CULTIVATION

Mullein is native to central and southern Europe and west Asia, but has naturalized throughout North America. It tolerates poor soil and minimal watering, but requires full sun exposure. This herb grows wild at low altitudes, in gravelly soil near river beds, open fields, hillsides, and on road sides. It is easy to cultivate and thrives in a fertile, well drained soil.

Mullein species are characterized by silver-green, lanceolate leaves that are coated in woolly hairs. It is a biennial herb and the leaves form a basal rosette in a plant's first year of growth. During its second year, a stalk emerges from the rosette and terminates in a slender spike of vibrant, yellow flowers. Although *V. thapsus* is the most common species found in commerce, there are several species which can be cultivated for medicinal purposes. *V. olympicum* (Greek Mullein) is a striking species that is native to Greece, with multiple stalks that are illuminated by light, yellow flowers. It is ideal to cultivate for its prolific flower production. *V. bombyciferum* (Silk mullein) has impressive large leaves that are elliptic or ovate and form a gorgeous, silver rosette; this species is the best choice for an abundant leaf harvest. All species form a light brown colored taproot: the roots of the three species listed previously are suitable for medicinal purposes.

MEDICINAL PREPARATIONS OF THE ROOT

It can be very difficult to find a commercial bulk herb source for mullein root, as it is rarely available in commerce. Thus, it is best to cultivate the root or to harvest the root from the wild, especially if large quantities are needed for regular consumption. Mullein roots are best harvested in the fall of the first year or the spring of the

second year. To dry the roots, wash them in water, wipe dry, cut into thin slices, and dry them on well ventilated trays or screens. Once the root slices have dried completely (after 2-4 weeks,) they can be placed in a jar or plastic bag. The dried roots last for several years.

Fresh roots can be tinctured at a ratio of 1:2 (plant weight to menstruum volume) with 95% alcohol (grain or grape alcohol). Dried roots can be tinctured at a 1:5 ratio, with 50%-60% alcohol. Although I prefer to use alcohol-based extracts, I find that the glycerin-based extracts can be administered to children with greater ease. I recommend the following proportions: prepare tinctures with fresh roots at a ratio of 1:2, using a menstruum containing 50% glycerin and 50% alcohol; prepare a tincture with dry roots at a ratio of 1:5 using 40% glycerin, 40% water, and 20% alcohol.

For adults, the dose range of the root extract is 30-60 drops, one to three times a day. To evaporate off the alcohol, add the measured dose to 2-4 ounces of just-boiled water, and wait fifteen minutes; this method is recommended when administering the tincture to children, individuals who are sensitive (not allergic) to alcohol, or for those whom alcohol irritates the bladder or kidneys.

Mullein root tea is prepared as a decoction by placing 4 tablespoons of the root in one quart of water, and simmering on low for a minimum of thirty minutes. Allow the tea to steep for another thirty minutes (or longer), strain, and drink. Consume four to eight ounces of the tea, two to four times daily. The water-based preparations are ideal for addressing urinary tract issues.

ENERGETIC ACTIONS

The thermal nature of mullein root is warming. Its flavor is mildly astringent and slightly bitter. Mullein root has an earthy, robust taste. Mullein root drains dampness in the lower burner, specifically dampness in the kidney and bladder. Mullein leaves and flowers are cooling, astringent, and bitter.

CONSTITUENTS

Although mullein has been used medicinally for centuries, very little research has been done on its healing properties. The roots contain the following constituents:

estrogen in the body, which occurs during menopause, causes the urethral and vaginal membranes to shrink; resulting in bladder weakness and leakage. In addition to the use of mullein root, I often recommend using other hormone balancing agents such as Dong quai (*Angelica sinensis*) and Black cohosh (*Cimicifuga racemosa*) to enhance the body's utilization of endogenous estrogen. It is also important to address the declining adrenal function. The adrenals play an important role in retaining accurate amounts of water in the body, via the kidney-adrenal renin, angiotensin, aldosterone loop. Women who have the following symptoms may benefit from the consumption of an adrenal tonic such as Licorice (*Glycyrrhiza glabra*): frequent urination, night time urination, light colored urine, low blood pressure, chronically dry skin or mucus membranes, and renal hypotension (dizziness when standing). Licorice mimics the effects of aldosterone and increases the secretion of anti-diuretic hormone which increases the retention of salt and water in the body and causes a decrease in urination. These actions are helpful when addressing the deficiency of adrenal cortical hormones.

Compound for women with incontinence due to estrogen deficiency and adrenal insufficiency (120 milliliters, 4 ounces)

Take 30-60 drops, two to three times a day. Avoid use in individuals with high blood pressure or edema (*Glycyrrhiza*). Discontinue using if this formula causes a frontal headache (*Cimicifuga*), a dull ache in the lower back (*Schisandra*) or difficulty sleeping (*Eleuthero* or *Panax*.)

- 30 mls *Verbascum* root (Mullein root)
- 20 mls *Angelica sinensis* (Don quai)
- 20 mls *Eleutherococcus* (Siberian ginseng) or *Panax ginseng* (Ren shen)
- 15 mls *Cimicifuga racemosa* (Black cohosh)
- 15 mls *Glycyrrhiza glabra* (Licorice)
- 10 mls *Poria* (Fu ling) or *Plantago alisma* (Ze Xie)
- 10 mls *Schisandra* (Wu Wei Zi)

INTERSTITIAL CYSTITIS

Mullein can be used as a long term tonic for individuals with recurring bladder infections and interstitial cystitis (inflammation and irritation of the bladder). I find mullein root to be very useful with individuals who feel like they have a urinary tract infection, but test negative for bacteria. Often the sensation of pain and urgency result from lingering inflammation and also from weakness of the mucus membranes that line the bladder. Mullein is reduces lingering inflammation in the bladder, which can cause a sense of urgency, urinary tenesmus (painful straining), and dysuria (painful urination.)

Silica (silicon) deficiency is another reason a person may experience the sensation of a lingering urinary tract infection when bacteria are not present in the urine. Silica is a mineral which increases the integrity of the elastic tissues of the bladder. The fresh extract of Horsetail (*Equisetum*) can be used in low doses (5-10 drop doses) or in a formula context to treat silica deficiency related bladder weakness. Nettle leaves also contain silica and can be used similarly to horsetail. Horsetail speeds healing of the tissues as well. The following compound can be used as a long term treatment for interstitial cystitis, as well as to reduce bladder weakness which exhibits similar sensations to a bladder infection.

Bladder strengthening formula (120 milliliters, 4 ounces)

Consume 60 drops of the formula, two to three times a day, in 2-4 ounces of water. The herbs contained in this formula strengthen the structure and improve the function of the bladder. The mild astringent actions and the silica reduce inflammation of the mucus membranes in the bladder. The herbs also have soothing diuretic actions.

- 30 mls *Verbascum* spp. (Mullein root)
- 30 mls *Zea mays* (Corn silk, fresh)
- 20 mls *Nuphar luteum* (Yellow pond lily)
- 15 mls *Plantago alisma* (Ze Xie, Chinese Water Plantain rhizome)
- 15 mls *Serenoa* (Saw Palmetto)
- 10 mls *Equisetum* (Horsetail)

Urinary soothing tea

Prepare the tea as a decoction, and consume 6-8 ounces 3-4 times a day.

- 3 parts *Althea officinalis* (Marshmallow root)
- 2 parts *Verbascum* root (Mullein root)
- 1 part *Eupatorium purpureum* (Gravel root)
- 1 part *Glycyrrhiza glabra* (Licorice root)

BENIGN PROSTATIC HYPERTROPHY

Mullein root reduces prostate swelling and inflammation and can be very useful for the treatment of benign prostatic hypertrophy (BPH) (enlargement of the prostate gland.) The diuretic and astringent actions have a soothing and anti-inflammatory effect on the bladder, prostate, and urethra. The root decreases dribbling and reduces the sensation of a dull ache in the prostate gland. The root can be used alone or in a compound as a long term tonic to address symptoms of BPH.

The following compound contains herbs with soothing diuretic, astringent, and anti-inflammatory actions; as well as herbs that strengthen the bladder and urinary ap-

aucubin, heptaose, nonaose, octaose, and verbascone.¹ The leaves contain calcium, magnesium, iron, beta-carotene, mucilaginous polysaccharides, iridoids, triterpene saponins (verbascosaponin), glycosides, acids and flavonoids.^{1,2, 3} The flowers contain triterpene saponins (verbascosaponin), flavonoids (rutin), iridoids (aucubin), phenylethanoid glycosides (verbascoside = acteoside) thapsic acid, crocetin, and mucilaginous polysaccharides.^{1,2,3} The plant contains catalpol, hesperidin, bascoside, and verbasterol.¹ The seeds contain mucilage and oleic acid. ¹

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URINARY INCONTINENCE

Mullein root is valuable as a bladder tonifying agent for the treatment of urinary incontinence (loss of urine without warning.) It strengthens and improves the tone the trigone muscle (a triangular area at the base of the bladder) and significantly enhances bladder function. It has soothing diuretic properties; it increases the volume of urination, while decreasing the frequency of urination. Mullein root also has mild astringent properties which reduce inflammation in the mucosa of the bladder. It does not irritate or over stimulate bladder or kidney function. Mullein root can be used as a long term tonic for individuals with urinary incontinence, recurring bladder infections, interstitial cystitis, and benign prostatic hypertrophy.

STRESS INCONTINENCE

Mullein root is one of the most effective herbal treatments for mild physical stress incontinence, caused by coughing, heavy lifting, laughing, or running. Stress incontinence is associated with aging or a cystocele (a bladder hernia which protrudes into the vagina) which results from injuries related to childbirth. Mullein root reduces the frequency of urination, decreases leakages and dribbling. It also improves the integrity of the tissues in the bladder and appears to restore the tone of a prolapsed bladder. Although, the single extract of Mullein root works well, I often combine it with Saw palmetto (*Serenoa repens*), Yellow pond lily (*Nuphar lutea*), and Corn silk (*Zea mays*) when treating women with prolapsed bladder and cystocele.

PREGNANCY INCONTINENCE

Mullein root can be used to relieve pregnancy related incontinence and leakage. However, relief during the latter half of the third trimester may be limited due to the constant pressure of the fetus on the bladder.

Bladder strengthening compound for pregnant and nursing women (60 mls - 2 ounces)

Take 30-60 drops, 2-3 times a day.
15 mls *Verbascum* root (Mullein root)

15 mls *Zea mays* (Cornsilk)
10 mls *Serenoa* (Saw palmetto)
10 mls *Nuphar* (Yellow pond lily)
10 mls *Urtica* leaf (Nettles)

CHILDREN WITH INCONTINENCE

Mullein can also be of value for the treatment of urinary incontinence in children, including enuresis (bed wetting at night). Its use is appropriate for children who continue to have problems after four years of age. Children can experience significant decrease in their frequency of bed wetting (which result from physical not emotional causes) when taking mullein root on a daily basis. I have used the root extract successfully with young children who chronically lack bladder control and feel the need to urinate every 30 minutes. The children can travel longer distances with greater ease; they urinate less frequently, while consuming a similar volume of liquid. Please note that I carefully explain to parents that children should not hold back urine too long, because a urinary tract infection can occur. I also remind them that young children have small bladders and they should urinate more frequently than adults.

When treating children with acute urinary incontinence, it is important to rule out urinary tract infections as the cause of frequent urination. External agents such as laundry detergents, chlorine, and other substances can irritate the bladder, and sometimes cause a bladder infection. Food sensitivities can also inflame the bladder and urethra, mimicking symptoms of a urinary tract infection. Mullein root works primarily to improve the structure and function of the bladder; it does not address the psychological and emotional causes of incontinence.

Children's bladder strengthening compound (60 mls - 2 ounces)

30 mls *Verbascum* root glycerin or alcohol extract (Mullein root)

30 mls *Zea mays* (Cornsilk)

Dose for children

I recommend that children consume 1-3 drops, of this extract per five pounds of body weight, two times per day. For instance, the dose range for a child who weighs 30 pounds would be 6-18 drops. Place the extract in 3-4 ounces of water; and administer the medicine in the morning and before dinner. Additionally, limit or discontinue the child's consumption of beverages 2-3 hours before retiring.

MENOPAUSAL INCONTINENCE

A number of peri-menopausal, menopausal, and post menopausal patients have urinary incontinence related to estrogen deficiency and aging. The gradual reduction of

paratus. *Serenoa* can reduce the accumulation of dihydrotestosterone (DHT) levels; high DHT levels can be an indicator of BPH. Black or blue cohosh can be used to reduce swelling and pain of the prostate; however, black cohosh is more specific for individuals with high blood pressure, while blue cohosh is more specific for individuals with low blood pressure.

Compound for males with BPH

Take 60-90 drops, up to 3 times a day, in 2-4 ounces of water.

30 mls *Urtica* root (Nettles)

20 mls *Verbascum* root (Mullein)

20 mls *Nuphar luteum* (Yellow pond lily)

20 mls *Serenoa repens* (Saw palmetto)

15 mls *Galium aparine* (Cleavers)

15 mls *Cimicifuga racemosa* (Black cohosh) or
Caulophyllum (Blue cohosh)

CONTRAINDICATIONS

The plant is non toxic. The wooly hairs on the leaves can be irritating to the skin and may cause a rash in sensitive individuals. One may want to wear a mask and gloves when processing mullein leaves. The leaves and flowers may irritate the mucus membranes in the throat, causing a slight tickle. When preparing a tea of the leaves, consider straining the leaf and flower tea through a fine cloth or a paper coffee filter before consuming.

ADDITIONAL RECOMMENDATIONS

When treating patients with urinary incontinence, a cystocele, and benign prostatic hypertrophy, I always recommend that they practice Kegel exercises at frequent intervals throughout the day. Patients are also encouraged to practice Kegel exercises during urination (starting and stopping the urinary stream intermittently.) Kegel exercises strengthen the pubococcygeal muscles, and are an important part in strengthening the bladder.

In addition to Kegel exercises, patients with chronic bladder and prostate problems will experience a more rapid recovery if they avoid consuming bladder irritants such as coffee, chocolate, alcohol, citrus, soda, carbonated beverages, refined or processed foods, and foods and beverages containing sulfites. It is also important to identify food allergies, as they can sometimes cause irritation and inflammation of the bladder.

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