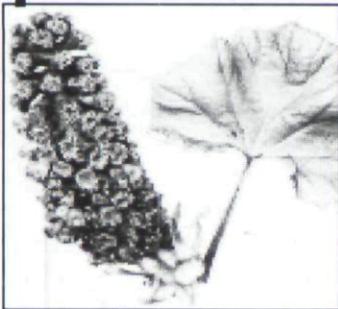


HERB PROFILE : BUTTERBUR (*Petasites hybridus*)

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Butterbur has not been a common ingredient in modern herbal blends in the U.S. Also called sweet coltsfoot and purple butterbur, an interest in this herb is beginning to increase, thanks in part to a number of positive studies that have been done in the last few years. Most of the uses for butterbur revolve around its antispasmodic and anti-inflammatory actions. Historically, the rhizome has been used in Europe to treat skin conditions, pain, and muscle spasms, such as menstrual cramps, irritable bladder and urinary tract spasms, and even some types of stammering. It has been recommended for coughs, asthma, stomach ulcers, and as a heart tonic. During the Middle Ages, butterbur was used to treat plague and fever

and was considered a poison antidote. Traditional Chinese medicine occasionally recommends Japanese butterbur (*P. japonicus*) for similar uses. Homeopaths use it for neck, head, and back pain and to ease urinary tract irritation.

Butterbur now grows wild in the northeast U.S. into Michigan and Illinois and in the Pacific Northwest. The roundish leaves that appear after the plant has flowered are sometimes confused with coltsfoot (*Tussilago farfara*), but they are much, much larger, sometimes attaining a diameter of three feet. (Supposedly, the large leaves were once used to wrap butter, and thus the plant's name.) Both are members of the large Asteraceae family and were originally in the same genus.

The active compound is primarily petasin (sesquiterpene esters), which seems to be mostly responsible for the anti-inflammatory and pain relieving properties. Petasines inhibits leucotrienes, which are responsible for inflammation in the body, and decrease concentration of calcium between cells which helps to explain butterbur's anti-inflammatory and spasmolytic properties. Another, unidentified compound in butterbur inhibits COX-2, one of the substances in the body responsible for inflammation.

Several commercial products are manufactured in Germany, such as Petadolex and ZE 339, with which most of the studies have been done. The rhizome is approved by the German Commission E for use in supportive therapy to ease spastic pain in the urinary tract, especially when caused by urinary stones. Their recommended dose is 4.5 to 7 grams daily, taken up to six weeks a year. There are no adverse effects listed, although use is not suggested during pregnancy or for nursing mothers. Some people have experienced digestive complaints, such as burping, when taking the herb.

Butterbur is thought to help maintain muscle tone in blood vessels in the brain and has been found to reduce migraine headaches by about 60%. The researchers in one study commented that the "combination of high efficacy and excellent tolerance of *Petasites* is good for preventing migraine." Sixty people were given butterbur (50 ml) twice a day for over three months. The result of this randomized, group-parallel, double-blind study was that they had far fewer migraines and fewer days of headaches compared to a placebo group. In another study with people ages 18 to 65 who experienced at least two to six migraines a month, the frequency of attacks was cut nearly in half over four months of taking 75 mg. of the extract daily. This was about twice the improvement of a placebo group.

The Allergy Clinic in Landquart, Switzerland feels that butterbur should be considered by medical practitioners to treat seasonal hay fever, especially for people who need to avoid the sedative effects commonly caused by antihistamines. However, some studies have reported drowsiness and fatigue from the herb, as well as the drug. The majority of studies support this use. In two of these, with nearly 130 people in each, butterbur worked as well as the antihistamine drug cetirizine to ease allergy symptoms, such as nasal congestion, runny nose, and itchy eyes. The participants took one tablet, four times daily, for two weeks. In a two-month study with 64 adults and 16 children, their asthma attacks decreased when they took butterbur. In addition, there was a more than 40% reduction of having to take asthma medications by the end of the study. The participants in other studies have even reported improvement in quality of life after taking butterbur along with having their hay fever symptoms improve.

The leaves of butterbur have also been used medicinally, mostly to treat headaches, muscle cramps, and colic, but are rarely used in commercial preparations because they contain pyrrolizidine alkaloids. These alkaloids are similar to the compounds that made comfrey root so controversial. [see *AHA* 6:4 & 19:1.] There have been four cases of hepatitis, which was eventually cured, possibly associated with long-term use of butterbur, although these alkaloids have not been recorded in the rhizome.

REFERENCES:

- Danesch, U.C. 2004. P.h. extract in treatment of asthma-open trial. *Ann Allergy Asthma Immunol.* 92(2):250-54.
- Danesch, U, et al. 2005. P.h. extracts in vitro inhibit COX-2 and PGE2 release by direct interaction with enzyme and preventing p42/44 MAP kinase activation in rat primary microglial cells. *Planta Med.* 71(1):12-19.
- Fiebich, BL. 2005. P.h. extracts in vitro inhibit COX-2 and PGE2 release ... *Planta Med.* 71(1):12-9.
- Grossmann, M, and Schmidraml H. 2000. An extract of P.h. effective in prophylaxis of migraine. *Int J Clin Pharmacol Ther* 38(9):430-35.
- Kaufeler, R, et al. Efficacy and safety of butterbur herbal extract Ze 339 in seasonal allergic rhinitis. *Adv Ther.* 2006 23(2):373-84.
- Lee, DK, et al. 2002. Butterbur ... attenuates adenosine monophosphate induced nasal responsiveness in seasonal allergic rhinitis. *Chin J Physiol.* 31:45(4):137
- Lin, H, et al. 2000. Inhibition of testosterone secretion by S-petasin in rat testicular interstitial cells. *Chin J Physiol* 30:43(3):99-103.
- Lipton, RB, et al. 2004. P.h. root an effective preventive treatment for migraine. *Neurology.* 28:63(12):2240-4.
- Schapowal, A. 2002. Randomised controlled trial of butterbur and cetirizine for treating seasonal allergic rhinitis *BMJ* 19:324(7330):144-6.
- Thomet, OA, et al. 2001. Role of petasin in potential anti-inflammatory activity of plant extract of P.h. *Biochem Pharmacol.* 61(8):1041-7
- Ziolo, G, and Samochowiec L. 1998. Study on clinical properties and mechanisms of action of P.h. in bronchial asthma and chronic obstructive bronchitis. *Pharm Acta Helv* 72(6):378-80.

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