

Expert Herbal Reality Resource

Herb Name Insert Here

Names

Botanical Name *Arctium lappa* L

Family: Asteraceae

Common names: great burdock, beggars buttons, thorny burr, Klette (Ger), bardane (Fr), bardana (Ital, Sp)

Alternate botanical names: *A. major* Gaertn.), *A. minus* (Hill) Bernh., *A. tomentosum* Mill.; there are 18 recognized species of burdock around the world, among which five are considered as hybrid species; many are used interchangeably with *A. lappa*.



Description

A strong biennial plant extending up to 2 metres high, marked out by its very large ovate-cordate leaves up to 45cm across, though getting smaller up the stem; they are generally smooth above and with white cottony down underneath. The other distinguishing marks are the flowers, borne in clusters at the top of the stems, globular in shape and covered with a dense array of stiff hooked bracts that cling to anything coming in contact; enclosed inside are purple florets, and after fruiting large achenes with a short pappus of stiff hairs on each. The long root, up to 3 feet long, runs straight down into the subsoil; when chopped and dried it is covered externally with brown cork and longitudinally wrinkled, the inner surface mealy and buff-white.

Constituents

- lignans (eg. arctigenin and its glycoside arctiin, neoarctin A and B, arctignan D and E, lappaol A, C, and H)
- bitter sesquiterpene lactones (incl. arctiopicrin)
- inulin and pectic polysaccharides
- phytosterols (incl daucosterol and B-sitosterol)
- acetylenes including arctinones, arctinols, arctinal, arctic acids
- caffeoylquinic, chlorogenic and hydroxycinnamic acids
- triterpenoids
- various volatiles

Arctigenin has strong anti-inflammatory properties in laboratory research.ⁱ It is higher in the seeds used in Traditional Chinese Medicine. For a more complete list of burdock's constituents and their pharmacological properties see this [table](#).

Traditional use

The root has been used Traditional Chinese Medicine (TCM) for congested and toxic conditions, with recent application to diabetes and in Japan in cancer care. The seeds are used in TCM for septic conditions, boils,

abscesses, and especially for throat inflammations. They are also used as cooling diaphoretic remedies in fever management and a diuretic formerly applied to dropsy and other cases of oedema.

With sheep sorrel, slippery elm, and rhubarb root, burdock root is a component of ESSIAC, a formulation originally promoted as an alternative cancer treatment by a Canadian nurse Rene Caisse (ESSIAC is her name spelt backwards). This blend is clearly intended as a detox or cleansing regime.

Traditional actions

Traditional Ayurvedic characteristics are

- Rasa** (taste) bitter, pungent
- Virya** (action) cooling
- Vipaka** (post-digestive effect) sweet
- Guna** (quality) cold, dry and heavy
- Dosha** effect: steadies *vata* and reduces excessive *pitta* and *kapha*
- Dhatu** (tissue) plasma, blood
- Srotas** (channels) urinary, blood, digestive

What practitioners say

Burdock is a popular remedy in folk medicine and western herbal practice, most often as a carefully administered component of detoxifying regimes to reduce inflammatory conditions on the skin and in the joints

- **Skin:** burdock is one of the most effective remedies in reducing eczema and other dermatitis
- **Digestion:** a gentle bitter digestive, combining well with dandelion where appetite and digestion needs improving, especially in recovery from illness
- **Metabolic and inflammatory:** burdock as a reputation for supporting other herbs in maintaining healthy blood sugar levels
- **Musculoskeletal:** its diuretic properties are associated with benefits in osteoarthritis and gout



Evidence

Much is now known about the constituents of burdock and their individual activities.^{ii iii}

However the clinical effects of the whole remedy have not been researched. In one study thirty-six patients aged 50-70 years with osteoarthritis of the knee and continuing their usual treatment of acetaminophen and glucosamine were randomly divided into two groups: one taking an additional three cups of burdock root tea daily for 42 days. This in the burdock group had significantly decreased levels of inflammatory markers (IL-6, hs-CRP and malondialdehyde) with significant increase in antioxidant activity.^{iv}

Safety

Apart from occasional reports of contact dermatitis from the fresh plant, burdock has no significant safety concerns. As indicated elsewhere in this monograph it has quite pronounced detoxifying effects that can be associated with temporary exacerbations of dermatitis and other skin problems. These are not long-term risks and are reduced in clinical practice by combining burdock with other eliminatory remedies.



Dosage

The traditional dose of the root is 3 - 18 g per day by decoction. However to start, especially in treating skin disease, it is often wise to start with low doses and titrate upwards.

References

- ⁱ Gao Q, Yang M, Zuo Z. (2018) Overview of the anti-inflammatory effects, pharmacokinetic properties and clinical efficacies of arctigenin and arctiin from *Arctium lappa* L. *Acta Pharmacol Sin.* 39(5): 787-801. doi: 10.1038/aps.2018.32
- ⁱⁱ Wang D, Bădăraș AS, Swamy MK, et al. (2019) *Arctium* Species Secondary Metabolites Chemodiversity and Bioactivities. *Front Plant Sci.* 10: 834. doi: 10.3389/fpls.2019.00834
- ⁱⁱⁱ Chan YS, Cheng LN, Wu JH, et al. (2011) A review of the pharmacological effects of *Arctium lappa* (burdock). *Inflammopharmacology.* 19(5): 245-54. doi: 10.1007/s10787-010-0062-4.
- ^{iv} Maghsoumi-Norouzabad L, Alipoor B, Abed R, et al. (2016) Effects of *Arctium lappa* L. (Burdock) root tea on inflammatory status and oxidative stress in patients with knee osteoarthritis. *Int J Rheum Dis.* 19(3): 255-61. doi: 10.1111/1756-185X.12477