Devil’s Claw

Harpagophytum procumbens
[harp-ah-go-FY-tum pro-KUM-benz]

Family: Pedaliaceae

Names: arthritis root, Grapple plant, wood spider; Sengaparile (Botswana)

Description: Devil’s claw is native to southern and eastern Africa, and is found most commonly on the veldt of the Transval. Harpagophytum is the cut, dried tuber. It bears a characteristic large, hooked, claw-like fruit. Devil's Claws are made into a variety of craft products, including baskets and mobiles. After the first rains the large nodular roots produce young shoots that lie flat on the ground, growing to a length of 5 feet. The leaves are fleshy and lobed. The brilliant red flowers arise from the leaf axils. The fruit grows woody, forming long branching outgrowths ending in barbs. It is due to this that the plant bears the German name Teufelskralle, meaning devil’s claw. Inside you’ll find about forty black seeds. It is the secondary storage roots or tubers that are used medicinally. They are storage organs up to 6cm thick and 20cm long, several of which may be found on a lateral root, often at a depth of up to one metre.

Cultivation: Devil’s Claw thrives in clay or sandy soils, preferring roadides and waste ground, especially places where natural vegetation has been cleared. Propagated from seed in spring, the young tubers are unearthed in autumn and cut into pieces about ¾ inches long. Care is taken not to mix the tubers, which contain the active constituents, with the roots, since this can render the herb ineffective. After soaking in warm water, seeds should be planted in late spring in warm soil. Plant 2 to 4 ft apart in rich loam, and cover with half an inch of planter mix. Keep moist, and water weekly after germination. Put them in a full sun area, which should make them flower by mid summer, with pods ripening in the fall. The tuber can be collected in the first year but in desert areas the tubers may take 12 years to develop. The tubers need to be dried very quickly to prevent them becoming rotten or moldy. Do not damage the taproot. Taproots can be up to 50 years old. Tubers may need up to 4 years to recoup before harvest.

History: Africans have used the herb for centuries to treat skin cancer, fever, malaria and indigestion. In Europe, the tea is recommended for arthritis, diabetes, allergies, senility and is widely utilized as an appetite stimulant and a digestive aid. Since the end of World War II, devil's claw has been used in medical institutions throughout southern Africa, and in some hospitals and clinics in Germany, as a treatment for inflammatory diseases. Most of these trials have been partially to totally effective. The first published report of this early research appeared in 1958. In that paper,
devil's claw was reported to be effective in reducing inflammation and swelling in experimentally-induced arthritis. Using simple water extracts, the researcher was able to reduce swelling from 300-800% in a matter of days.

**Actions:** Anodyne/analgesic; anti-arthritic; Anti-inflammatory; antirheumatic

**Constituents:** Iridoid glycosides including harpagide, harpagoside and procumbide; flavonoids, mainly kaempferol and luteolin glycosides; phenolic acids: chlorogenic and cinnamic acid; a quinone harpagoquinone; triterpenes, oleanolic and ursolic acid derivatives and esters, sugars, (stachyose, glucose, raffinose, saccharose)

**Energetics:** bitter, cool

**Meridians/Organs affected:** liver, stomach

**Medicinal Uses:** It has been recommended for treating a wide variety of conditions: Cholecystitis; Cholelithiasis; Gout; Obesity; Osteoarthritis; Rheumatoid arthritis; Dyspepsia; Hypercholesterolemia; Hyperlipidemia. It is a remedy from the Kalahari desert in Namibia with a well deserved reputation as an effective rheumatic remedy. A group of glycosides called harpagosides found in the root show a marked anti-inflammatory effect. Devil’s claw is also considered by herbalists to be a potent bitter. Bitter principles, like the iridoid glycosides found in devil’s claw, stimulate the stomach to increase the production of acid, thereby helping to improve digestion.

In the west, Devil’s claw has been recommended for treating a wide variety of conditions including diseases of the liver, kidneys, and bladder, as well as allergies, arteriosclerosis, lumbago, gastrointestinal disturbances, menstrual difficulties, neuralgia, headache, climacteric (change of life) problems, heartburn, nicotine poisoning, and above all, rheumatism and arthritis.

Externally, devil's claw root is made into ointments for skin rashes, wounds and the like. Diabetes, hepatitis, kidney and bladder deficiency, nervous malaise and respiratory ailments are all treated with devil's claw preparations. Insofar as hardening of the arteries pertains to complications of aging, devil’s claw finds application. There is some concern in the industry about the difficulty of obtaining good devil's claw root; only certain portions of the root contain active constituents, and often the whole root is supplied to manufacturers. To help circumvent this problem, standardized preparations are now being produced.

Not much research has been done in this area, but it has been established devil's claw root possesses a bitter value of 6,000, equal to the main Western bitter, gentian root. It would therefore be expected to possess similar gastro-intestinal properties. Indeed, in the few reported studies on g.i. problems, harpagophytum proved effective in treating such complaints as dyspepsia and conditions relating to the proper functioning of bile salts, the gallbladder, and the enterohepatic circuit. In a related manner, the herb helps to raise cholesterol and fatty acid levels in the blood. As one author points out, devil's claw may be the perfect treatment for elderly people with arthritis, obesity and hyperlipemia.

By 1962, the active component, harpagoside, had been identified, and in 1970 this compound was subjected to a rigorous pharmacological screening trial in which the anti-inflammatory property was validated. Whole devil's claw preparation was found to be superior to pure harpagoside, both were found to be safe; furthermore, the anti-arthritic effect was found to not be due to any pain-killing property of the plant, since it had none. Meanwhile, other reports were appearing reporting good clinical results. In one case, over 100 patients were treated with either pure devil's claw or with a combination of herb and standard treatment. Evidence for lack of toxicity continued to accumulate. Other important chemicals have been identified: harpagide, procumbide, beta-sitosterol, stigmasterol, fatty acids, triterpenes and...
An early review paper on devil's claw suggested the plant was a good stimulant of the lymphatic system, with detoxifying effects that extended to the whole organism, and provided evidence from clinical studies involving close to 400 persons. The plant was indeed effective for most of the conditions listed in the folklore section above, especially as pertaining to the liver, gallbladder, bladder and kidneys.

More recent studies have found devil's claw preparations are generally well suited for the treatment of chronic rheumatism, arthritis, gout, spondylisis-induced lower back pain, neuralgia, headaches, and lumbago. One study found its anti-inflammatory effects equaled those of pyrazolone derivatives and the commonly prescribed anti-arthritis phenylbutazone. Analgesic effects of a subjective nature are reported, but objective tests are ambiguous on this point. Relief of pain is probably a side benefit of reduced inflammation. Improved mobility in the joints is often reported, as well as improved feeling of well-being. Currently, physicians in Europe are injecting devil's claw extract directly into arthritic joints, where it acts much like cortisone in terms of reducing inflammation. As in the case of most arthritis treatments, not everybody benefits, but there are enough to do to warrant further investigation of this plant, and to recommend it as a possible treatment option. A clinical study carried out in Germany in 1976 reported that devil's claw exhibited anti-inflammatory activity, comparable in many respects to the well-known anti-arthritis drug, phenylbutazone. Analgesic effects were also observed along with reductions in abnormally high cholesterol and uric-acid blood levels.

Not all studies have reported success. For example, in one case, 13 patients exhibiting various kinds of arthritis, for whom conventional therapy had failed, were given devil's claw tablets (410mg/3xdaily for six weeks) without positive results. Simultaneous rat studies likewise produced negative results, even though indomethacin was effective. The lack of toxicity of harpagophytum was again established in these trials. But the lack of positive effect is hard to explain when compared to the many other reports. The use of a highly group of subjects may have contributed to the failure. At any rate, it is obvious that much more experimental and clinical work needs to be done on this plant. Successful studies rely on injections of an herbal extract of devil’s claw and an injection goes right into the bloodstream without passing through the stomach. This herb can lose its anti-arthritis potency in the stomach though its effect as a bitter is not damaged.

British Pharmacopoeia recognizes devil's claw as having anti-inflammatory, anti-rheumatic, analgesic, sedative and diuretic properties, and as being good for rheumatism, arthritis, gout, myalgia, fibrositis, lumbago, pleurodynia. There are suggestions of combining it with menyanthes, apiium, gaultheria and dioscorea in the treatment of rheumatism.

**Dosage:** 3 g/day (Anti inflammatory /comparable to action of phenyl butazone); As a digestive stimulant, 1.5–2 grams per day of the powdered secondary tuber is used. For tincture, the recommended amount is 1–2 ml three times per day. For arthritis, some herbalists suggest 4.5–10 grams per day.

Some recommend that two weeks on and two weeks off is the best approach to Devil's Claw. Others have thought a month of continuous use is the best way to begin: The main active ingredients in Devil's claw are Beta sitosterol and Iridoid glycosides (harpogoside, harpagide, and procumbine), which are stored in the tuber. A commercial preparation should be standardized to a given level of harpogoside, say 3% to 5%, and you may be directed to take the equivalent of about 5 mg to 10 mg of harpogoside per day. Note however, that tablets come in sizes of around 350 to 520 mg, so you need to check the level of harpogoside in each tablet.

**Combinations:** Bogbean, Celery Seed and Meadowsweet for arthritis; Coltsfoot and White Horehound for bronchial problems; Chamomile for indigestion, gas and appetite
loss; Black Cohosh, Bogbean and Willow Bark for joint problems

**Remedies:**

**Arthritis Tea**
2 tsp devil’s claw tuber
3 tsp white willow bark
1 tsp feverfew herb
2 tsp yucca root
2 tsp sarsaparilla root
3 cups cold water

Combine the herbs in a glass container and cover with the water. Soak overnight. Drain. Take one-half cup three times daily.

**Toxicity:** Devil’s claw is free from side effects and seemingly lacks any appreciable toxicity though it should not be used in cases of acute gall bladder disease; Gastric and duodenal ulcers, or pregnancy. Since devil’s claw promotes the secretion of stomach acid, anyone with gastric or duodenal ulcers, heartburn, gastritis, or excessive stomach acid should not use the herb. Additionally, people with gallstones should consult a physician before taking devil’s claw. The anti-inflammatory activity of devil’s claw can be seriously inhibited by phenobarbital and certain other sedatives and hypnotics (chloral hydrate, meprobamate, etc., as well as beta-adrenergic blocking agents (propanolol). Colchicine may increase sensitivity or enhance the response to devil’s claw. This herb’s analgesic effects may be additive with other analgesics and anesthetics. It may be inhibited by barbiturates even though CNS depressant effects may occur. The analgesic property of this herb may be reversed or eliminated by p-chlorophenylalanine, cyproheptadine HCl, and phenobarbital. The CNS depressant tendency of this analgesic may be potentiated by chlorpoxthixene HCl, haloperidol, and tranquilizers. The use of diuretics may require dosage adjustments of antidiabetic drugs. Devil’s claw should not be used with methotrimeprazine, a potent CNS depressant analgesic.

**Other Uses:** Devil’s Claw has been eaten as a vegetable in Africa.

**References:**


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