



Horse Chestnut – *Aesculus hippocastanum*



Native to western Asia (Persia and North India) but widely cultivated and naturalized in most temperate regions.

Introduced into Europe and cultivated there since the 16th century, it is indigenous to certain parts of the Balkan Peninsula.

Chiefly used for medicinal purposes are the seeds (nuts), which are processed by the pharmaceutical industry.

The horse chestnut, *Aesculus hippocastanum*, which has also been known as *Hippocastanum vulgare*, is an entirely different tree from the Sweet Chestnut, to which it is not even distantly related.

Some writers think that the prefix “horse” is a corruption of the Welsh “*gwres*”, meaning hot, fierce, or pungent, e.g. ‘horse chestnut’ =’s the bitter chestnut, in opposition to the mild, sweet one.

Common Names: Horse Chestnut, Spanish chestnut, Roskastanie (German), Marronnier d’inde (French)

Do not confuse this plant with its North American relative *Aesculus glabra*, commonly known as Buckeye

Family: Hippocastanaceae

Parts Used: Seeds (Primary) and Bark, pericarp

- The bark and the seed, from both of which a fluid extract is made. The bark is stripped in the spring and dried in the sun, or by slight artificial heat.
- The bark is odorless but has a bitter, astringent taste.

Flowering Season: May-June

Collection Season: Ripe nuts are collected in September and October as they fall to the ground; the bark of the tree is harvested in early spring season.

Actions:

Vasodilator	Anti-Edematous effect	Anti-inflammatory	Venous Tonic
Astringent	Tonic (Bark)	Narcotic (Bark)	Febrifuge (Bark)
Circulatory Tonic (Seed)		Antiseptic (Bark)	Male Tonic
Blood thinning	Stimulates circulation	Increases capillary resistance	
Decreases capillary permeability		Antiecchymotic (Against Bruises)	

Chemical Constituents:

Saponins: (3 to 6%)

Aescin/Escin (0.2 to 0.3%)

Acylated glycosides (protoescigenin and barring-togenol-C)

Flavonoid glycosides:

alpha and beta escins (Ia, Ib, IIa, IIb, IIIa, etc)

Acyl groups:

Tiglic acid

Angelic acids

Coumarins:

Esculin (aesculin)

Fraxin and their aglycones

Sterols and Triterpenes:

Friedelin

Taraxerol

Spinasterol

Triterpene saponin glycosides (3 to 6%)

Stigmasterol

a-spinasterol

b-sitosterol

Flavonoids:

Quercetin

Kaempferol

Procyanidins

Anthocyanins

Catchins

Tannins/Condensed Tannins

Fatty Acids

Linolenic acid

Palmitic acid

Stearic acid

Lipids

Further Pharmacology Notes:

- Escin has been shown to reduce edema and exudation, decreasing capillary permeability, increasing venous tone, and reducing hypoxia.
- It antagonizes some of the effects of Bradykinin and produces an increase in plasma levels of ACTH, corticosterone, and glucose in rats.
- A number of clinical studies have shown benefits in CVI, DVT, Varicose veins (including those of pregnancy), and for the prevention of edema in the foot and ankle during an airplane flight (1.5 hrs)
- Centuries of observation and successful use, herbalists know that the inner fruit (the nut) of Horse chestnut safely strengthens veins and other circulatory apparatus.
- Looking at Horse Chestnut through the eyes and language of reductionist science, pharmacologists perceive this plant differently than a trained herbal practitioner. They tend to believe (if they credit the whole herb with any healing action at all) that the pharmacological activity of Horse Chestnut is simply due to its tannin, flavone, and saponin content. These constituents of Horse Chestnut are perceived by western pharmacology as the “active ingredients”. Pharmacologists believe that these constituents can be isolated from the “superfluous or inert” constituents of the whole plant and that this improves their pharmacological nature; that these “active” plant constituents can be used as molecular blueprints, synthesized by using complex coal-tar molecules in the laboratory, and that these resultant isolated and synthetic molecular forms are more reliable, and are more precise to administer and allow side effects to be eliminated. (there are generally no side effects from the plant when dosed appropriately as is)
- To improve circulation by improving venous tone (peripheral vascular disorders, slow healing leg ulcers); disorders where local tissue edema may be involved (carpal tunnel syndrome, Bell’s palsy, dysmenorrhea, intervertebral disc lesions); conditions requiring treatment of the early phase of inflammation such as soft tissue injuries, swelling, minor surgery.
- Escin (also spelled Aescin) is a registered drug in Germany and is the active ingredient in a number of preparations used either topically or orally for the treatment of peripheral vascular disease, in particular that related to altered capillary permeability and resistance.

- Escin reduces the localized edema associated with inflammation and acts by reducing capillary permeability to water, thus decreasing exudation into intercellular spaces.
- “In a randomized, double-blind, placebo- controlled crossover study, the influence of oral doses of escin on capillary resistance was tested on 12 healthy subjects. After 7 days of treatment with escin, capillary resistance was significantly improved as measured by the petechiae test. There was no effect from the placebo.” – Wienert V. Int J Angiol 1997; 6(2) 115-117
- The whole extract of the horse chestnut also shares these properties of escin. Some suggest that the combination of escin with flavonoids, as found in the natural plant extract, is a superior treatment to escin alone.

What are its uses?

Head, Ears, Eyes, Nose, and Throat:

- Pressure from glaucoma due to venous congestion in the eyes
- Headache

Integumentary System (Skin):

- Reduces swelling in bruises
- Phlebitis (Internal)
- External application to ulcers (bark)
- Eczema
- Hematoma (Deep bruising) (topical)
- Contusions (topical)
- Non-penetrating wounds (topical)
- Sports injuries involving swelling (topical)
- Fragile capillaries (topical)
- Pimples (topical)
- Sunburn (topical)
- Cellulite (topical)
- Skin care products; for normal skin, baby skin, sensitive skin; to tone the skin

Mental Health/Brain:

- It has been found to be effective in the treatment of cerebral edema and a rise in intra-cranial pressure following road accidents.
- Considered a “top notch” remedy for obsessive and compulsive thinking, as if one were chased by one’s own thoughts, round and round, and had no control over them (Bach flower Remedy)
- Mental tension
- White Chestnut (Horse Chestnut) is used for the basic treatment of compulsive thoughts, fixations, and mental and emotional overstimulation (Bach Flower Remedy, White Chestnut)
- Used to treat all pathological conditions related to compulsive thoughts or fixations. (Bach Flower Remedy, White Chestnut)

- In daily life, used to treat sleep disorders, jumbled thoughts, difficulties with concentration, “wired” behavior, and headaches due to excessive mental and emotional stress (Bach Flower Remedy, White Chestnut)

- people who are tyrannized by certain unpleasant thoughts or ideas (Bach flower remedy, white chestnut)

Nervous System:

- Neuralgia (seed)
- Nerve pain in the viscera due to congestion
- Restless leg syndrome

Respiratory System:

- Asthma from stasis in the pulmonary veins

Digestive System:

- Swollen liver; uneasiness, fullness, aching, throbbing; associated with portal and rectal engorgement
- Dyspepsia, associated with hemorrhoids and rectal stasis

Excretory System:

Hemorrhoids (seed) – A specific herb, Two or three drops with a spoonful of water, taken before meals and at bedtime

Rectal complaints (seed)

Rectal uneasiness with burning or aching pain

Congestion of the colon, rectum, and the entire pelvic viscera

Rectal neuralgia

Proctitis (inflammation of rectum/anus)

Reflex conditions attributed to rectal involvement (including headache, spasmodic asthma, dizziness, disturbed digestion)

Urinary/Renal System:

Endocrine System (Hormones):

Cardiovascular System:

- Vascular disease
- Vascular insufficiency (chronic)
- Varicose veins
- Varicose ulcers
- It is activating on capillaries

- Improves elasticity of blood vessels
- Decreases likelihood of DVT after surgery
- Improvement in capillary resistance
- Increases the strength and tone of the veins in particular
- Passive venous congestion
- A state where the veins are distended and full, with blood collecting in them, so that there is poor return circulation from the feet
- Backing up of blood through the portal vein to the liver, which may be congested and full, and up the veins to the right or venous side of the heart.
- Distention of the right side of the heart.
- High blood pressure
- Edema
- Increased femoral venous pressure and flow with no change in arterial parameters

Circulatory System:

- Increase the elasticity and tone of the veins while decreasing vein permeability
- Plebitis (internally)
- Vein inflammation (internally)
- Varicosities (internally)
- Leg ulcers and varicose veins (externally)

Immune/Lymphatic System:

- Used in intermittent fevers (the bark), given in infusion or 1oz to the pint, in tablespoonful doses, three or four times daily.
- Decreases edema from lymphatic congestion or of inflammatory origin
- Increased thoracic lymphatic flow

Reproductive System:

- Pelvic and uterine congestion

Musculoskeletal System:

- Reduces swelling in fractures
- Feeling of "heaviness" in the legs associated with edema
- Sports injuries (topical)
- Rheumatism (seed)
- Soreness of the whole body, with vascular fullness, throbbing, and general malaise