



Hawthorn TINCTURE

HEART TONIC

Heart and nerve tonic

NPN 80076120
50 ml

Each ml contains

Hawthorn	leaf and flower	<i>Crataegus laevigata</i>	1:2	783 mg	Organic
Alcohol 30 %, certified organic					

DOSAGE

INTERVENTION: 2 ml, 2 times per day.

TREATMENT: 1 ml, 2 times per day.

DIRECTIONS FOR USE

Shake well before using. Take in a mouthful of water. For long-term treatment, take 6 days out of 7.

MODE OF ACTION

Hawthorn flowers and leaves are the circulatory system's best allies. They act on many fronts in the prevention and treatment of its pathologies. Long or middle term use is recommended in order to benefit from their tonic effect that helps return different cardiovascular health markers to normal.

Hawthorn inhibits the production of angiotensin II and increases the endothelial secretion of nitric oxide. The resulting arterial vasodilation gives the herb its antihypertensive and peripheral vasodilating properties. It also acts on the coronary arteries, thus increasing the supply of oxygen and nutrients to the myocardium. Clinical studies show that use of a water-alcohol hawthorn extract by patients suffering from hypertension, arrhythmia or heart failure reduces their symptoms while improving the metabolism and performance of their heart. Another probable mechanism of hawthorn is the inhibition of phosphodiesterase, leading to a regulation of heart rate, an increase in the strength of myocardium contractions and faster return to its relaxation state.

Rich in flavonoids, hawthorn lowers LDL blood cholesterol levels and decreases its oxidation. It increases the stability of the collagen structures in the connective tissue of blood and lymph vessel walls, which increases their resistance to damage caused by inflammation. It is therefore indicated in the prevention or treatment of atherosclerosis. The antioxidant properties of its flavonoids could also explain that this herb protects the cardiac myocytes against ischemic lesions and speeds up their repair after a heart attack.

Hawthorn has a calming effect on the central nervous system. Recent research seems to indicate that it contains molecules with anti-anxiety and anti-depressor effects. Hyperosides possibly act on the hypothalamus-pituitary-adrenal axis by decreasing the hormonal response to stress while chlorogenic acid may inhibit the enzyme responsible for the degradation of dopamine. Therefore, *Crataegus laevigata* could be useful in cases of nervous agitation causing symptoms such as insomnia or heart palpitations.

The properties of hawthorn are mostly attributed to its flavonoids (hyperoside, vitexin, rutin, quercetin) and its oligomeric procyanidins. It also contains triterpenes (ursolic, crataegolic and oleanolic acids), phenolic acids (chlorogenic and caffeic acids) and some amines.

HELPFUL ASSOCIATIONS

CARDIOTOP to improve peripheral blood circulation.

MOTHERWORT tincture for arrhythmia, hypertension, heart failure or anxiety.

ELDER BERRY tincture in cases of arteriosclerosis, atherosclerosis, and varicose veins.

ETHNOBOTANY

Cardiovascular system: hypertension, hypotension, arrhythmia, congestive heart failure, heart attack recovery, angina, heart hypoxia, atherosclerosis, arteriosclerosis, degenerative heart pathologies, prevention of heart troubles.

Nervous system: anxiety, insomnia, stress.

HISTORY

A member of the Rosaceae family, the *Crataegus* genus includes hundreds of species of hawthorn which are mostly found in the temperate regions of the northern hemisphere. For the Celts, this early-flowering tree is a symbol of fertility and the return of spring, and is associated with Beltane. For many centuries, hawthorn was used in Europe as a diuretic to treat gout and bladder troubles. In 1653, Culpeper recommended it to treat kidney stones and swelling. Towards the end of the 19th century, the Eclectics promoted the virtues of *Crataegus* in caring for cardiovascular pathologies. While traditionally the berries were mostly used, contemporary research leans more and more towards the properties of the leaves and flowers.

CONTRA-INDICATIONS

Consult a health-care practitioner if symptoms persist or worsen.

INTERACTIONS

Consult a health-care practitioner before using if you take cardiac glycosides such as digoxin (also called digitalin) or blood pressure medication.

REFERENCES

- Arslan R., Bektas N., Bor Z., Sener E. Evaluation of the antithrombotic effects of *Crataegus monogyna* and *Crataegus davisi* in the carrageenan-induced tail thrombosis model. *Pharmaceutical Biology* 53 (2): 275-279; 2015.
- Asgary S., Naderi G.H., Sadeghi M., Kelishadi R., Amiri M. Antihypertensive effect of Iranian *Crataegus curvisepala* Lind.: a randomized, double-blind study. *Drugs under experimental and clinical research* 30 (5-6): 221-225; 2004.
- Barnes J., Anderson L.A., Phillipson J.D. *Herbal medicines*, 3rd Edition. London: Pharmaceutical Press; 2007.
- Beyerl Paul. *A Compendium of Herbal Magick*. Custer: Phoenix Publishing; 1998.
- Bone Kerry. *A clinical Guide to Blending Liquid Herbs*. St. Louis: Churchill Livingston; 2003.
- Brixius K., Willms S., Napp A., Tossios P., Ladage D., Bloch W., Mehlhorn U., Schwinger R.H.G. *Crataegus* Special Extract WS® 1442 Induces an Endothelium-Dependent, NO-mediated Vasorelaxation via eNOS-Phosphorylation at Serine 1177. *Cardiovascular Drugs and Therapy* 20: 177-184; 2006.
- Brown Donald J. *Herbal Prescriptions for Health & Healing*. Twin Lakes: Lotus Press; 2000.
- Bruneton Jean. *Pharmacognosie, Phytochimie, Plantes médicinales*, 2ème édition. Paris: TEC&DOC Lavoisier; 1993.
- Butterweck V., Hegger M., Winterhoff H. Flavonoids of St. John's Wort Reduce HPA Axis Function in the Rat. *Planta Medica* 70: 1008 1011; 2004.
- Chang Q., Zuo Z., Harrison F., Chow M.S.S. Hawthorn. *Journal of Clinical Pharmacology* 42: 605-612; 2002.
- Cloud A., Vilcins D., McEwen B. The effect of hawthorn (*Crataegus* spp.) on blood pressure: A systematic review. *Advances in Integrative Medicine* 7 (3): 167-175; 2020.
- Culpeper Nicholas. *Culpeper's Complete Herbal & English Physician*. Bedford: Applewood Books; 1653.
- Dalli E., Colomer E., Tormos M.C., Cosin-Sales J., Milara J., Esteban E., Saez G. *Crataegus laevigata* decreases neutrophil elastase and has hypolipidemic effect: A randomized double-blind placebo-controlled trial. *Phytomedicine* 18 (8-9): 769-775; 2011.
- ESCAP. *Monographs: The Scientific Foundation for Herbal Medicinal Products*, Second Edition. New York: Thieme; 2003.
- Gagnon C., Lanctôt-Bédard V. *Materia Medica*. Montréal: Flora Medica; 2009.
- Gao P., Li S., Liu K., Sun C., Song S. Li L. Antiplatelet aggregation and antithrombotic benefits of terpenes and flavones from hawthorn leaf extract isolated using the activity-guided method. *Food & Function* 10 (2): 859-866; 2019.
- Habs M. Prospective, Comparative Cohort Studies and Their Contribution to the Benefit Assessments of Therapeutic Options: Heart Failure Treatment with and without Hawthorn Special Extract WS® 1442. *Forschende Komplementärmedizin und klassische Naturheilkunde*= Research in complementary and natural classical medicine 11: 36-39; 2004.
- Hoffmann David. *Medical Herbalism: The Science and Practice of Herbal Medicine*. Rochester: Healing Arts Press; 2003.
- Holmes Peter. *The Energetics of Western Herbs*, Vol. 1, 3rd Edition. Boulder: Snow Lotus Press; 1997.
- Jellin J.M., Gregory P.J., Batz F. Hitchens K. et al. *Pharmacist's Letter/Prescriber's Letter Natural Medicines Comprehensive Database*, 5th Edition. Stockton: Therapeutic Research Faculty; 2003.
- Khan A., Akram M., Thiruvengadam M., Daniyal M., Zakki S.A., Munir N., Zainab R., Heydari M., Mosavat S.H., Rebezov M., Shariati M.A. Anti-anxiety Properties of Selected Medicinal Plants. *Current Pharmaceutical Biotechnology* 23 (8): 1041-1060; 2022.
- Kim S.H., Kang K.W., Kim K.W., Kim N.D. Procyanidins in *Crataegus* extract evoke endothelium-dependent vasorelaxation in rat aorta. *Life Sciences* 67 (2): 121-131; 2000.
- Kumar D., Arya V., Bhat Z.A., Khan N.A., Prasad D.N. The genus *Crataegus*: chemical and pharmacological perspectives. *Brazilian Journal of Pharmacognosy* 22 (5): 1187-1200; 2012.
- Lim D.W., Han T., Jung J., Song Y., Um M.Y., Yoon M., Kim Y.T., Cho S., Kim I.-H., Han D., Lee C., Lee J. Chlorogenic Acid from Hawthorn Berry (*Crataegus pinnatifida* Fruit) Prevents Stress Hormone-Induced Depressive Behavior, through Monoamine Oxidase B-Reactive Oxygen Species Signaling in Hippocampal Astrocytes of Mice. *Molecular nutrition & food research* 62 (15): 1800029; 2018.
- Long S.R., Carey R.A., Crofoot K.M., Proteau P.J., Filtz T.M. Effect of hawthorn (*Crataegus oxyacantha*) crude extract and chromatographic fractions on multiple activities in a cultured cardiomyocyte assay. *Phytomedicine* 13 (9-10): 643-650; 2006.
- Mills S., Bone K. *Principles and Practice of Phytotherapy*. St. Louis: Elsevier; 2000.
- Motti R., de Falco B. Traditional Herbal Remedies Used for Managing Anxiety and Insomnia in Italy: An Ethnopharmacological Overview. *Horticulturae* 7 (12): 523-554; 2021.
- Nazhand A., Lucarini M., Durazzo A., Zaccardelli M., Cristarella S., Souto S.B., Silva A.M., Severino P., Souto E.B., Santini A. Hawthorn (*Crataegus* spp.): An Updated Overview on Its Beneficial Properties. *Forests* 11 (5): 564-584; 2020.
- Nitzan K., David D., Franko M., Toledano R., Fidelman S., Tenenbaum Y.S., Blonder M., Armoza-Eilat S., Shamir A., Rehavi M., Ben-chaim Y., Doron R. Anxiolytic and antidepressant effect of *Crataegus pinnatifida* (Shan Zha): biochemical mechanisms. *Translational Psychiatry* 12 (1): 1-8; 2022.
- Orhan Ilkay Erdogan. Phytochemical and Pharmacological Activity Profile of *Crataegus oxyacantha* L. (Hawthorn) – A Cardiotonic Herb. *Current Medicinal Chemistry* 25 (37): 4854-4865; 2018.
- Pittler M.H., Schmidt K., Ernst E. Hawthorn extract for treating chronic heart failure: meta-analysis of randomized trials. *The American Journal of Medicine* 114 (8): 665-674; 2003.
- Quettier-Deleu C., Voiselle G., Fruchart J.-C., Duriez P., Teissier E., Bailleul F., Vasseur J., Trofin F. Hawthorn extracts inhibit LDL oxidation. *Die Pharmazie-An International Journal of Pharmaceutical Sciences* 58 (8): 577-581; 2003.
- Rahimi R., Ghiasi S., Azimi H., Fakhari S., Abdollahi M. A review of the herbal phosphodiesterase inhibitors; Future perspective of new drugs. *Cytokine* 49 (2): 123-129; 2010.
- Rathinavel A., Sankar J., Sadullah S.S.M., Devaraj S.N. Oligomeric proanthocyanidins protect myocardium by mitigating left ventricular remodeling in isoproterenol-induced postmyocardial infarction. *Fundamental and Clinical Pharmacology* 32 (1): 51-59; 2018.
- Romm Aviva. *Botanical medicine for women's health*. St. Louis: Churchill Livingstone; 2010.
- Schneider Anny Arbres et arbustes thérapeutiques. Montréal : Les Éditions de l'Homme; 2002.
- Schüssler M., Hölzl J., Fricke U. Myocardial effects of flavonoids from *Crataegus* species. *Arzneimittel-forschung* 45 (8): 842-845; 1995.
- Tassell M.C., Kingston R., Gilroy D., Lehane M., Furey A. Hawthorn (*Crataegus* spp.) in the treatment of cardiovascular disease. *Pharmacognosy Reviews* 4 (7): 32-41; 2010.
- Tilgner Sharol Marie. *Herbal Medicine from the Heart of the Earth*, 2nd Edition. Pleasant Hill: 2009.
- Vastel A., Chagnon S. *Médecine traditionnelle chinoise, plantes médicinales occidentales*. Guy Trédaniel: Paris. 2020.
- Verma S.K., Jain V., Verma D., Khamesra R. *Crataegus oxyacantha* – A cardioprotective herb. *Journal of Herbal Medicine and Toxicology* 1 (1): 65-71; 2007.
- Vierling W., Brand N., Gaedcke F., Sensch K.H., Schneider E., Scholz M. Investigation of the pharmacological and pharmacological equivalence of different Hawthorn extracts. *Phytomedicine* 10: 8-16; 2003.
- Vibes J., Lasserre B., Gleye J., Declume C. Inhibition of thromboxane A2 biosynthesis in vitro by the main components of *Crataegus oxyacantha* (Hawthorn) flower heads. *Prostaglandins, Leukotrienes and Essential Fatty Acids* vol 50 (4): 173-175; 1994.
- F., Marakis G., Morris A. P., Robinson P. A. Promising hypotensive effect of hawthorn extract : A randomized double-blind pilot study of mild, essential hypertension. *Phytotherapy Research* 16 (1): 48-54; 2002.
- Wang J., Xiong X., Feng B. Effect of *Crataegus* Usage in Cardiovascular Disease Prevention: An Evidence-Based Approach. *Evidence-Based Complementary and Alternative Medicine* 2013: <http://dx.doi.org/10.1155/2013/149363>; 2013.
- Weiss R.F., Fintelmann V. *Herbal Medicine*, 2nd Edition. New York: Thieme; 2000.
- Wichtl Max. *Herbal Drugs and Phytopharmaceuticals*. Boca Raton: CRC Press; 1994.
- Xu S., Chen S., Xia W., Sui H., Fu X. Hyperoside : A Review of Its Structure, Synthesis, Pharmacology, Pharmacokinetics and Toxicity. *Molecules* 27 (9): <https://doi.org/10.3390/molecules27093009>; 2022.
- Yang B., Liu P. Composition and health effects of phenolic compounds in hawthorn (*Crataegus* spp.) of different origins. *Journal of Science of Food and Agriculture* 92: 1578-1590; 2012.

Organic, fresh herbs from the garden.

Made according to GMP.

Kosher, vegan and non-irradiated.

NO additives, colouring, added sugar, gluten, soy or GMOs.

