**Hemofix – Our formula**

*Science and Health*

Cellular metabolism depends on delivery of oxygen, nutrients, and hormones and removal of carbon dioxide and other wastes by the bloodstream. Wound-healing and immune responses also require platelets and white blood cells to be able to migrate efficiently to affected areas of the body. Poor circulation can lead to a number of serious conditions, including weight issues, vision problems, hemorrhoids, heart and kidney disease, hypertension, peripheral neuropathy, pain in the extremities, varicose veins, and impaired cognitive function.

*Natural Ingredients*

Made from plant-based ingredients that stimulate circulation, Hemofix can help improve a range of health functions. With enhanced nutritional access and toxin removal, cells all over your body will feel the benefits. In addition to overall health, Hemofix can help with a variety of issues, notably hemorrhoids and anal fissures, postpartum bleeding, and glaucoma, and can even promote efficient hemostasis to quickly stop bleeding from injuries or dental and surgical procedures.7,8

Our researchers developed the formula for Hemofix after studying the effect of naturally-derived compounds on circulation and disorders that arise from insufficient blood flow. A unique blend of several plant species with natural cardiovascular-boosting properties was created. The blend includes extracts from red clover (*Trifolium pratense*),9,10 stinging nettle (*Urtica dioca*),3,7,11 pomegranate (*Punica granatum*),1,5,6,8,12,13 red raspberry (*Rubus idaeus*),14 licorice root (*Radix Glycyrrhizae*),15-17 white peony root (*Radix paeoniae alba*),15,17 and ginger (*Rhizoma zingiberis*).2,4,18

*Hemofix for Circulation*

Extracts from these plants contain bioactive molecules that modulate the secretion of nitric oxide, cell surface molecules, and other compounds that regulate the endothelial cells that line blood vessels.3,4,8 The downstream effects from these biomolecules induce blood vessel relaxation, promote lower blood pressure, and support increased blood flow.1 Some ingredients also down-regulate platelet aggregation within blood vessels,10,12-14,18 lowering the risk of blood clots and associated cardiovascular diseases such as heart attack and stroke. Others promote the proliferation and maturation of blood cells, including red blood cells, platelets, and immune cells.16 Many of these herbs have been used in traditional medicine because they had been known for some time to promote cardiovascular health.

*Hemofix and Vitamin A*

Many of the ingredients in Hemofix, particularly nettle (*Utrica dioca*), are rich sources of Vitamin A. This well-known nutrient is famous for promoting ocular health, but it also maintains an optimal proliferation rate in hematopoietic stem cells, managing production and long-term health of blood cells.19 Collagen production and aggregation during hemostasis and clot formation also depend on sufficient vitamin A levels.20 Additionally, vitamin A also induces the differentiation of keratinocytes into mature epidermal cells for strong, healthy skin.21

**Resources:**

1. Wang D, Ozen C, Abu-Reidah IM, et al. Vasculoprotective Effects of Pomegranate (Punica granatum L.). *Frontiers in pharmacology.* 2018;9:544.

2. Chao DP, Chen JJ, Huang SY, Tyan CC, Hsieh CL, Sheen LY. Effects of hot and cold foods on signals of heart rate variability and nail fold microcirculation of healthy young humans: a pilot study. *The Chinese journal of physiology.* 2011;54(3):145-152.

3. Amiri Behzadi A, Kalalian-Moghaddam H, Ahmadi AH. Effects of Urtica dioica supplementation on blood lipids, hepatic enzymes and nitric oxide levels in type 2 diabetic patients: A double blind, randomized clinical trial. *Avicenna journal of phytomedicine.* 2016;6(6):686-695.

4. Naderi Z, Mozaffari-Khosravi H, Dehghan A, Nadjarzadeh A, Huseini HF. Effect of ginger powder supplementation on nitric oxide and C-reactive protein in elderly knee osteoarthritis patients: A 12-week double-blind randomized placebo-controlled clinical trial. *Journal of traditional and complementary medicine.* 2016;6(3):199-203.

5. Mobli M, Qaraaty M, Amin G, Haririan I, Hajimahmoodi M, Rahimi R. Scientific evaluation of medicinal plants used for the treatment of abnormal uterine bleeding by Avicenna. *Archives of gynecology and obstetrics.* 2015;292(1):21-35.

6. Goshtasebi A, Mazari Z, Behboudi Gandevani S, Naseri M. Anti-hemorrhagic activity of Punica granatum L. flower (Persian Golnar) against heavy menstrual bleeding of endometrial origin: a double-blind, randomized controlled trial. *Medical journal of the Islamic Republic of Iran.* 2015;29:199.

7. Simsek C, Selek S, Koca M, Haznedaroglu IC. Proteomic and transcriptomic analyses to explain the pleiotropic effects of Ankaferd blood stopper. *SAGE open medicine.* 2017;5:2050312117722569.

8. Yan H, Peng KJ, Wang QL, et al. Effect of pomegranate peel polyphenol gel on cutaneous wound healing in alloxan-induced diabetic rats. *Chinese medical journal.* 2013;126(9):1700-1706.

9. Teede HJ, McGrath BP, DeSilva L, Cehun M, Fassoulakis A, Nestel PJ. Isoflavones reduce arterial stiffness: a placebo-controlled study in men and postmenopausal women. *Arteriosclerosis, thrombosis, and vascular biology.* 2003;23(6):1066-1071.

10. Kolodziejczyk-Czepas J, Sieradzka M, Wachowicz B, Nowak P, Oleszek W, Stochmal A. The anti-adhesive and anti-aggregatory effects of phenolics from Trifolium species in vitro. *Molecular and cellular biochemistry.* 2016;412(1-2):155-164.

11. Ibrahim M, Rehman K, Razzaq A, et al. Investigations of Phytochemical Constituents and Their Pharmacological Properties Isolated from the Genus Urtica: Critical Review and Analysis. *Critical reviews in eukaryotic gene expression.* 2018;28(1):25-66.

12. Konic-Ristic A, Srdic-Rajic T, Kardum N, et al. Effects of bioactive-rich extracts of pomegranate, persimmon, nettle, dill, kale and Sideritis and isolated bioactives on arachidonic acid induced markers of platelet activation and aggregation. *Journal of the science of food and agriculture.* 2013;93(14):3581-3587.

13. Mattiello T, Trifiro E, Jotti GS, Pulcinelli FM. Effects of pomegranate juice and extract polyphenols on platelet function. *Journal of medicinal food.* 2009;12(2):334-339.

14. Dudzinska D, Bednarska K, Boncler M, Luzak B, Watala C. The influence of Rubus idaeus and Rubus caesius leaf extracts on platelet aggregation in whole blood. Cross-talk of platelets and neutrophils. *Platelets.* 2016;27(5):433-439.

15. Jung E, Jung W, Park SB, Kim CS, Kim JS, Kim J. EGHB010, a Standardized Extract of Paeoniae Radix and Glycyrrhizae Radix, Inhibits VEGF-Induced Tube Formation In Vitro and Retinal Vascular Leakage and Choroidal Neovascularization In Vivo. *Evidence-based complementary and alternative medicine : eCAM.* 2017;2017:1568702.

16. Li X, He X, Liu B, et al. Maturation of murine bone marrow-derived dendritic cells induced by Radix Glycyrrhizae polysaccharide. *Molecules (Basel, Switzerland).* 2012;17(6):6557-6568.

17. Guo L, Cho SY, Kang SS, Lee SH, Baek HY, Kim YS. Orthogonal array design for optimizing extraction efficiency of active constituents from Jakyak-Gamcho Decoction, the complex formula of herbal medicines, Paeoniae Radix and Glycyrrhizae Radix. *Journal of ethnopharmacology.* 2007;113(2):306-311.

18. McEwen BJ. The influence of herbal medicine on platelet function and coagulation: a narrative review. *Seminars in thrombosis and hemostasis.* 2015;41(3):300-314.

19. Canete A, Cano E, Munoz-Chapuli R, Carmona R. Role of Vitamin A/Retinoic Acid in Regulation of Embryonic and Adult Hematopoiesis. *Nutrients.* 2017;9(2).

20. Mukherjee G, Chatterjee GC, Banerjee D, Bhattacharya DK. Differential effect of retinoic acid on ADP and collagen induced platelet aggregation. *Indian journal of experimental biology.* 1990;28(10):949-952.

21. Torma H. Regulation of keratin expression by retinoids. *Dermato-endocrinology.* 2011;3(3):136-140.