

# SalvTonic

## Recommended Use:

- ▶ Cardiovascular system protection
- ▶ Angina pectoris – stable and unstable angina
- ▶ Coronary heart disease
- ▶ Improving myocardium microcirculation
- ▶ Atherosclerosis and arterial plaque formation
- ▶ Increasing arterial elasticity
- ▶ Improving micro and macro-vascular circulation
- ▶ Reducing platelet aggregation and adhesion.
- ▶ Improving fibrinolysis, anti-coagulation.
- ▶ Lowering total cholesterol, increase HDL cholesterol
- ▶ Type 1 & 2 diabetes vascular and nephropathy complications

SalvTonic is an herbal cardiovascular circulation formula that provides multi-targeted protection for the heart and blood vessels. This formula improves circulation and blood flow, lowers total cholesterol, reduces plaque formation, and improves risk of thrombosis – all factors that contribute to angina, heart attack, stroke, pulmonary embolism, cold extremities and many other vascular conditions.

By increasing microcirculation, SalvTonic can reduce angina and diabetic complications. In Traditional Chinese Medicine, SalvTonic is the natural first choice to invigorate blood, improve blood stasis and alleviate pain in the chest due to stagnation of Qi and blood flow. This formula has been created to activate circulation and disperse stasis, for symptoms such as: palpitations, chest pain that radiates to the left arm, purple lips, ect. This herbal formula has been shown to be more effective than nitrates for reducing angina attacks and improving ECG test results.<sup>1</sup>

When an artery is blocked, and then that area is re-perfused, there is a cascade of events that lead to tissue injury. This re-perfusion injury results in free

radical production, endothelial damage, mast cell degranulation and platelet aggregation. Studies have shown that Danshen is able to reduce the extent of which all of these events occur.<sup>2</sup> Danshen is found to inhibit leukocyte adhesion, H2O2 production, and albumin leakage through the vessel wall.

Each herbal compound in this formula has its own microcirculatory benefits, all of which help reduce these reperfusion-induced outcomes. The following all have reperfusion-induced injury associated with them: Trauma, angioplasty, thrombolysis treatment, organ transplantation, & hypovolemic shock (with resuscitation).

There is also evidence to show that Danshen is effective at preventing cardiovascular events by reducing the inflammatory process that results in atherosclerosis. More specifically, studies have shown that this herb is effective at reducing the expression of TNF- $\alpha$ , cellular adhesion molecules, IL-6 and 8.<sup>3</sup> *Panax notoginseng* has also been shown to inhibit the pathogenesis of atherosclerosis through its inhibition of the formation of foam cells (macrophages that have internalized excess LDL to start to formation of a plaque).<sup>4</sup>



### Medicinal Ingredients:

Each vegetarian capsule contains:

Danshen ( <i>Salvia miltiorrhizae</i> , root, 12.73:1 QCE 665.49 mg)	52.28 mg
Sanqi ( <i>Panax notoginseng</i> , root, 12.73:1 QCE 130.14 mg)	10.22 mg
Borneol (Bingpian)	5 mg

**Non-medicinal Ingredients:** Hydroxypropyl methylcellulose, Macrogol 6000.

**Recommended Dose (adults):** Take 1 capsule 3 times daily.

**Caution/warnings:** Do not use if pregnant or breastfeeding. Consult a health care practitioner if symptoms persist.

NPN 80006245 • 60 Capsules




These herbs work synergistically to improve outcomes due to their ability to target the same tissues while working on different components of the metabolic processes. For example, one study looked at the effect of Sanqi and Danshen separately and in combination. What they found was that each herb affects different aspects of these metabolic processes and when the two were combined the cardioprotective effects were superior than either given on their own.<sup>5</sup>

## SalvTonic for Stable Angina

Journal of Medicinal Plants Research, June, 2011

A meta-analysis of randomized controlled trials compared SalvTonic with isosorbide dinitrate (ID) in treatment of stable angina. A search of 1996 – 2010 databases was performed. 245 studies were screened including 1,536 patients (DSP therapy 847; ID therapy 689). Evidence showed that SalvTonic treatment improved angina symptoms more than ID treatment (93.4% vs. 73.8%,). SalvTonic as compared to ID treatment also resulted in superior electrocardiograms (69.7% vs. 46.3%). The results showed that SalvTonic plus routine therapy compared with ID plus routine therapy increased improvement in symptoms and ECG results. This study suggested SalvTonic is an effective therapy to treat stable angina.

## Effect of SalvTonic on urinary albumin excretion in type 2 diabetes mellitus

Medical Journal of China, May 2014

68, Type 2 diabetic patients were recruited from outpatients and hospitalized patients who did not take hypoglycemic drugs. Patients were randomly divided into control and treatment groups. Urinary albumin excretion rate and the relationships between glycosylated hemoglobin and blood lipids were investigated. After five years total cholesterol and low density lipoprotein were both significantly reduced. Urinary albumin excretion rates were improved in the treatment groups. Diabetic nephropathy in the SalvTonic group was lower than the control group. This study demonstrated that SalvTonic therapy can retard the occurrence and development of diabetic nephropathy and modulate blood lipids.

One of the reasons this formula is so effective for diabetes is because it significantly increases insulin sensitivity and improves glucose homeostasis.<sup>6</sup> Not only this but due to its specificity for improving microcirculation it can help negate the complications that arise from prolonged hyperglycemia, such as: diabetic nephropathy, renal failure, retinopathy and blindness.<sup>6</sup>

**CLINICAL PEARL:** Danshen has been shown to stimulate the enzyme activity of liver microsomal cytochrome P450 (CYP) in rats. Thus, if your patient is on drugs that are substrates of CYP, ie diazepam, they may be more rapidly metabolized.

### References:

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2. Cheng, Tsung O. "Cardiovascular effects of Danshen." *International journal of cardiology* 121.1 (2007): 9-22.
3. Stumpf, Christian, et al. "Anti-inflammatory effects of danshen on human vascular endothelial cells in culture." *The American journal of Chinese medicine* 41.05 (2013): 1065-1077.
4. Liu, Jingjing, et al. "Saponins of Panax notoginseng: chemistry, cellular targets and therapeutic opportunities in cardiovascular diseases." *Expert opinion on investigational drugs* 23.4 (2014): 523-539.
5. Liu, Jingjing, et al. "Saponins of Panax notoginseng: chemistry, cellular targets and therapeutic opportunities in cardiovascular diseases." *Expert opinion on investigational drugs* 23.4 (2014): 523-539.
6. Uzayisenga, Rosette, Peter Amwoga Ayeka, and Yi Wang. "Anti-diabetic potential of Panax notoginseng saponins (PNS): a review." *Phytotherapy Research* 28.4 (2014): 510-516.