

Artemisinin



INGREDIENTS



Doctor's Best Artemisinin contains high quality Artemisinin or Chin-hao-su, an extract from the traditional Chinese herb *Artemisia annua* (also known as sweet wormwood, annual sagewort/mugwort, or sweet Annie) or "Qing-hao". Sweet wormwood leaves have been consumed over several centuries for promoting general health and immune function.* In addition, the fantastic work done on artemisinin has earned the scientist who discovered

it, the Nobel prize of medicine in 1995.^{1,2} Since then, *Artemisia annua* has been extensively investigated and shown promising biological activities including metabolic, immunomodulatory, and antioxidant properties.^{*3-5}

Artemisinin is a potent dietary supplement with strong antioxidant activity that helps free the body of harmful cells, enhance the immune system, and support general health.* Doctor's Best Artemisinin is made in the U.S. with pharmaceutical grade Artemisinin to ensure high potency.*

BENEFITS

- Helps promote general health*
- Helps enhance immune system*
- Helps fight free radicals and reduce oxidative stress*
- Non-GMO / Gluten Free / Soy Free / Vegan

EXTENDED BENEFITS

Helps promote general health*

The large genus *Artemisia* comprises important medicinal plants, which have been the subject of phytochemical attention for thousands of years in traditional Chinese medicine because of their biological and chemical diversity and usefulness in various human ailments.*⁶ In 1972, artemisinin was isolated from *Artemisia annua* L. by You Tu at the Chinese Academy of Traditional Chinese Medicine and by the end of 1975, its unique chemical structure was elucidated, as a sesquiterpene lactone bearing a peroxy group.⁷ Since then, as research progresses, the effects of artemisinin and its derivatives have been greatly studied.

Based on the review from Bisht *et al*, the multidisciplinary use of *artemisia* species has various health benefits that are related to its traditional and modern pharmaceutical perspectives.⁸⁻⁹ In fact, the numerous species including *Artemisia annua* possess key therapeutic properties that may promote general human health.*¹⁰⁻¹¹ On that account, since data suggest that artemisinin may help protect endothelial function and vasodilation from oxidative damage, and also protect neuronal cells from oxidative stress, many research indicates that artemisinin may represent a potent supplement that can help support cardiovascular and brain health in human.*¹²⁻¹³

Helps enhance immune system*

In recent years, it has been shown that artemisinin and its derivative compounds have the ability to modulate the immune response by regulating cell proliferation and cytokine release.¹⁴ These effects may be beneficial in supporting and enhancing our immune system.*¹⁵

Artemisinin accomplishes immunosuppressive activities mainly through the inhibition of pathogenic T-cell activation, suppression of B cells, reduction in IgG and IgE immunoglobulins and inhibition of MAPKs signaling pathway (phosphorylation of ERK1/2, Jnk and P38).¹⁶⁻¹⁷ More, Zhang *et al*. revealed in their study that artemisinin and its derivatives can actively modulate the immune system to directly benefit the host by promoting the spleen index and enhancing the production of splenic CD8+ T cells and circulating T Helper cells while down regulating circulating B cells in healthy mice.¹⁸

Helps fight free radicals and reduce oxidative stress*

Free radicals and reactive oxygen species (ROS) are compounds that are extremely reactive and are usually the outcomes of routine cellular biotransformation in our body. Antioxidants maintain the equilibrium of radicals in cells, which fight oxidative stress. However, when there is an imbalance between ROS and antioxidants, oxidative damage can occur and result in the

Artemisinin 100mg, 90VC Supplemental Facts

Supplement Facts

Serving Size 2 capsules

Servings per container 45 servings

	Amount per serving	% Daily Value
Artemisinin	200 mg	†
(from sweet wormwood (<i>Artemisia annua</i>))		
† Daily Value not established.		

Other Ingredients: Microcrystalline cellulose, modified cellulose (vegetarian capsule), cellulose, magnesium stearate (vegetable source).

Suggested Adult Use: Take 2 capsules daily, with or without food, or as recommended by a nutritionally-informed physician.

Non-GMO / Gluten Free / Soy Free / Vegan
Store in a cool dry place.

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

deterioration of cellular macromolecules like enzymes, lipids, deoxyribose nucleic acids (DNA), and overall can negatively impact our health.*⁸ Based on numerous reviews, *A. annua* extracts are rich source of polyphenols, that can contribute to some of the medical benefits of drinking *A. annua* tea noted in Chinese Pharmacopeia.¹⁹

The antioxidant properties of phenolic compounds are well known; they are potent chelators of redox-active metal ions, and they can inactivate free radical chain reactions by hindering the conversion of hydroperoxides to ROS.²⁰ The antioxidant activity of *Artemisia annua* extracts was highlighted in the experimental study conducted by Kim *et al.* in 2014. The flavonoids and sesquiterpenes such as artemisinin contained in the extract protected hepatoma cells from oxidative stress, lipid peroxidation and DNA damage.²¹ Other recent studies have demonstrated that artemisinin may protect neuronal cells from oxidative damage.*^{13,22-24}

While the antioxidative effects of artemisinin remain to be explored, cumulative research has indicated that artemisinin has the potential to protect neuronal cells from oxidative damage in part through the activation of AMPK pathway (AMP-activated protein kinase (AMPK) is an energy sensor which plays a key role in regulating complex signaling networks of mitochondrial biogenesis. AMPK not only maintains energy metabolism balance, but also regulates oxidative stress).¹³ More, new data also suggest that artemisinin is able to protect endothelial function and vasodilation from oxidative damage, at least in part through activation of PI3K/Akt/eNOS pathway.¹²

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