🖒 designs for health Australia

Annatto-E[™] 150 🏹

150 mg 90% delta tocotrienols antioxidant

OVERVIEW

- > Provides 150 mg total tocotrienols per capsule.
- > Antioxidant that helps reduce free radicals formed in the body.
- > Maintains healthy cholesterol.
- > Supports cardiovascular system health.

Bixa orellana (Annatto) distillate concentrate234.5 mgfrom dry seed78.09 gequivalent to total tocotrienols150 mgequivalent to delta tocotrienols132 mgequivalent to gamma tocotrienols18 mg

Active Ingredients (per vegetarian hard capsule)

Directions for Use

Take 1 to 2 capsules per day or as directed by your health professional.

Allergen Information

No added: gluten, yeast, dairy, lactose, nuts, eggs and soy.

Pack Size	30
Servings Per Pack	30 serves

Excipients

Calcium hydrogen phosphate dihydrate Hypromellose Purified water Microcrystalline cellulose Silicon dioxide Modified food starch Magnesium stearate (vegetable) Colloidal anhydrous silica

Warning

If symptoms persist, talk to your health professional. Vitamin supplements should not replace a balanced diet.

Designed and packed in Australia from local and imported ingredients.



23mm 23mm 8.5 mm 1 Vegetarian Hard Capsule





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EDUCATION

Vitamin E: Tocotrienols

As part of the vitamin E family, tocotrienols consists of 4 isomers, alpha, beta, gamma, delta. These are found in high concentrations the seeds of rice, palm and annatto. With the highest quantities occurring in the annatto seed native to tropical America. Annatto seeds are unique as they don't contain any tocopherol.

Tocotrienols differ to tocopherols in its structure, bioavailability and function in the human body. Compared to tocopherols, tocotrienols have a lower molecular weight, a smaller polar head, and shorter tail, making it easier to move with the cell and be incorporate into cells. This unique advantage provides tocotrienols greater benefits in regards to cholesterol support, cellular inflammation and antioxidant protection.

Figure 1: Tocopherols vs. Tocotrienols function differently in lipid membranes.

TOCOTRIENOL TOCOPHEROL Molecular Structure Molecular Structure Image: Comparison of the structure Image: Comparison o

Designs for Health Quality Guarantee

Designs for Health medicines that are listed on the Australian Register of Therapeutic Goods will display an AUSTL number on the label. Listed medicines in Australia need to be manufactured according to legislated standards set out in Therapeutic Goods Order 101. TGO101 legislation sets out minimum quality standards for medicines supplied in Australia that display an AUSTL number. It mandates testing for:

- Impurities such as heavy metals (including lead, mercury, cadmium and arsenic), pesticides and residual solvents.
- Dissolution (to ensure the capsule will dissolve once taken).
- Uniformity (to ensure that every capsule is the same).

Final assay testing is also performed to ensure that what we have on the label is in each capsule, and microbiological testing is performed to ensure that no microbial contamination has occurred during the encapsulation and packing process.

Cardiovascular

Tocotrienols have been shown to help decrease inflammation in the cardiovascular system by helping to improve parameters of oxidative stress, such as nitric oxide, MDA and CRP. The small molecular structure and lack of saturated side bonds means that tocotrienols are able to influence HMG-CoA reductase activity in the mevalonate pathway that contributes to cholesterol synthesis.

Antioxidant

The antioxidant activity of tocotrienols is believed to be attributed to the phenolic group in the chromanol ring (head) which contributes to an even distribution of tocotrienols in the lipid bilayer. In addition, the tocotrienols have improved surface location at the top of the lipid membrane which leads to better free radical quenching and protection for cells. Tocopherols have been shown to block absorption, increase the degradation and dilute the effects of tocotrienols.