

Alfalfa: A Continued Interest in its Believed Health Properties

Within the nutritional supplements and natural products industry, alfalfa is being made available to consumers for dietary and preventative health care more and more as health reporting over the internet increases and its benefits become widely appreciated. Though not backed up by hard clinical evidence in humans, alfalfa is said to reduce cholesterol and blood sugar levels, promote liver health, detoxify the body, relieve pain and stiffness of arthritis/bursitis, and even alleviate postmenopausal “hot flashes”.¹

Named both the “King of Plants” and the “Queen of Forages”, alfalfa is thought to be the oldest cultivated forage crop in the US, and one of the most nutritious. If cut before it blooms, alfalfa is low in fiber and high in energy. That is why, beyond its nutritional potential for humans, alfalfa is valued as a principal component in dairy cattle rations and as feed for horses, beef cattle, sheep, and milking goats. Moreover, the plant offers distinct ecological benefits because of its very high yield potential compared with other forage crops, and it serves as an integral component of many crop rotations because of its ability to improve soil structure and condition, and control weeds in subsequent crop rotations.²

Alfalfa is a good source of protein, B-complex vitamins, and certain minerals, including calcium, iron, magnesium, phosphorous, and potassium. Alfalfa could help prevent fatigue associated with vitamin/mineral deficiency or protein energy malnutrition in disadvantaged parts of the world. And while the isoflavone/phytoestrogens content of alfalfa may explain claims of anti-cancer activity and benefits in relieving menopausal symptoms, there has been significantly more study of alfalfa’s anti-cholesterol potential.

Researchers have found that both alfalfa plant and alfalfa sprout saponin preparations bind to and absorb significant quantities of cholesterol. The direct interaction of saponins and cholesterol is thought to be responsible for the ability of alfalfa and other saponin-containing plant materials to reverse diet induced cholesterolemia in rats. Alfalfa saponins also interact with cholesterol found in intestinal cell membranes. This potentially alters cholesterol metabolism by interfering with intestinal absorption of cholesterol.³

Additionally, alfalfa sprouts absorb bile acids in the small intestine which then enter the large intestine and are eliminated along with steroids. Since steroids normally facilitate cholesterol absorption, their elimination provides another possible mechanism to reverse or prevent cholesterolemia.⁴

References

- 1 Alfalfa, Supplementwatch.com, 2002
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3. Hwang J, Sevanian A, Hodis H, Ursini F. *Synergistic Inhibition of LDL Oxidation by Phytoestrogens and Ascorbic Acid*. Free Radical Biol Med, 29(1); 2000:79-89; Malinow M, McLaughlin P, Stafford C, Livingston A, Kohler G. *Alfalfa saponins and alfalfa seeds*. Atherosclerosis, 37;1980:433-438; Molgaard J, von Schenck H, Olsson A. *Alfalfa seeds lower low density lipoprotein cholesterol and apolipoprotein B concentrations in patients with type II hyperlipoproteinemia*. Atherosclerosis, 65,1987:173-79.
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