

## Alfalfa

Alfalfa, also known as lucerne or *Medicago sativa*, is a flowering plant that is part of the legume family but can also be classified as an herb. It is widely grown primarily for hay, pasturage, and silage. Alfalfa originated in south-central Asia, where it was first cultivated in ancient Iran, has since grown in popularity and is planted all around the world for centuries now. In fact, during the early 2000s, alfalfa was the most cultivated forage legume in the world. The US was the largest alfalfa producer in the world in 2009. The leading alfalfa-growing states in America were California, Idaho, and Montana. Alfalfa is predominantly grown in the northern and western United States but considerable production areas are also found outside the United States in Argentina, Canada, Russia, Italy, and China.

Besides the forage uses mentioned above, alfalfa is also cultivated due to its many medicinal properties. Alfalfa's cholesterol-lowering ability is its best studied health benefit to date. Alfalfa can also be used for asthma, kidney conditions, bladder and prostate conditions, to increase urine flow, osteoarthritis, rheumatoid arthritis, diabetes, upset stomach, and a bleeding disorder called Idiopathic thrombocytopenic purpura. Alfalfa can be consumed in tablets or powder form from grinding the dried Alfalfa leaves, or the seeds can be sprouted and eaten in the form of alfalfa sprouts. People also take alfalfa as an excellent source of vitamins A, C, E, and K4; and minerals calcium, potassium, phosphorous, and iron.

However, despite its many health benefits, like all herbal supplements alfalfa should be taken with caution. The US Food and Drug Administration (FDA) issued an advisory indicating that children, the elderly, and people with compromised immune systems should not consume

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alfalfa sprouts because they are frequently contaminated with bacteria. Use should be avoided in people with a personal or family history of systemic lupus erythematosus (SLE) because of possible effects on immunoregulatory cells by canavanine, a component of alfalfa. Alfalfa may interact with immunosuppressant agents, because of its immunostimulatory effects. In addition, due to its high vitamin K content, if the patient is on warfarin, alfalfa may antagonize and therefore reduce its effects.

A medication that has a similar purpose as alfalfa is Atorvastatin. Atorvastatin and alfalfa are both used to lower low-density lipoprotein cholesterol and raise high-density lipoprotein cholesterol. Atorvastatin improves your body's ability to get rid of LDL cholesterol through your liver. On the other hand, Alfalfa contains fiber and a substance called saponins, which decrease the absorption of cholesterol in the gut and increase the excretion of compounds used to create new cholesterol.

A main reason that alfalfa is attractive to consumers is because people have a strong desire to prevent diseases and prolong health, and people prefer to take something that is naturally grown, as compared to something that is manufactured in a lab. Also, natural supplements are more affordable and accessible. For alfalfa in particular, you can either eat the sprouts like a vegetable or ingest it as an OTC supplement. It is rich in vitamins and minerals and can help lower the total cholesterol level, similar to the prescribed antilipemic agents without many of the side effects such as intestinal problems, muscle inflammation, and high blood sugar.

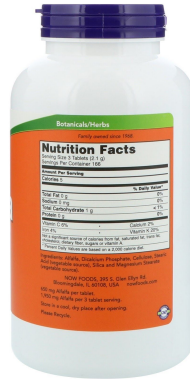
As a health educator, it is our responsibility to know the basics of commonly consumed natural products. However, it will be impossible to memorize information on every herb or

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supplements people are taking, so we need to have good trustworthy sources at our disposal. We can use the Information handbook for dentistry to obtain more information as well as reliable websites such as the National Institutes of Health. After researching alfalfa for this paper, my comfort level with this particular herb is high, and I feel confident in explaining the risks and side effects with patients taking alfalfa supplement.

Alfalfa is safe for most adults and should not have any interaction with regular dental treatment. The exception will be for those patients who are on warfarin. I would carefully interview with the medical history with patient, especially patients with any cardiovascular disease to make sure they understand the risk as well as those with an autoimmune diseases, hormone sensitive condition, and diabetes patients.

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**Nutrition Facts**

Serving Size 2 Tablets (1.2 g)  
Amount Per Serving

**Total Fat** 0.5 g

**Total Protein** 1.0 g

**Total Carbohydrate** 1.0 g

**Total Fiber** 0.5 g

**Total Iron** 0.5 mg

**Total Calcium** 0.5 mg

**Total Magnesium** 0.5 mg

**Total Zinc** 0.5 mg

**Total Selenium** 0.5 mg

**Total Vitamin A** 0.5 mg

**Total Vitamin B1** 0.5 mg

**Total Vitamin B2** 0.5 mg

**Total Vitamin B3** 0.5 mg

**Total Vitamin B6** 0.5 mg

**Total Vitamin C** 0.5 mg

**Total Vitamin E** 0.5 mg

**Total Vitamin K** 0.5 mg

**Total Folate** 0.5 mg

**Total Biotin** 0.5 mg

**Total Pantoic Acid** 0.5 mg

**Total Inositol** 0.5 mg

**Total Choline** 0.5 mg

**Total Betaine** 0.5 mg

**Total L-Carnitine** 0.5 mg

**Total L-Tyrosine** 0.5 mg

**Total L-Valine** 0.5 mg

**Total L-Isoleucine** 0.5 mg

**Total L-Leucine** 0.5 mg

**Total L-Phenylalanine** 0.5 mg

**Total L-Proline** 0.5 mg

**Total L-Serine** 0.5 mg

**Total L-Threonine** 0.5 mg

**Total L-Tryptophan** 0.5 mg

**Total L-Methionine** 0.5 mg

**Total L-Cysteine** 0.5 mg

**Total L-Glutamine** 0.5 mg

**Total L-Asparagine** 0.5 mg

**Total L-Aspartic Acid** 0.5 mg

**Total L-Glutamic Acid** 0.5 mg

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## References

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