

L-Lysine 500 mg Capsules



Product Summary:

L-Lysine is a naturally occurring amino acid. It helps to enhance calcium absorption and retention.¹⁻³ It is also used to help to reduce the recurrence, severity and healing time of cold sores.⁴⁻⁵

Properties/Uses:

The claim as approved by the *Natural Health Products Directorate* (NHPD): Helps to reduce the recurrence of herpes simplex virus (HSV) infection (e.g., cold sores). Essential amino acid for the maintenance of good health. Helps in collagen formation.



GENERAL HEALTH
& WELLNESS



Pharmacology:

L- Lysine is one of the naturally occurring 22 amino acids that are the building blocks of all proteins. Lysine is referred to as an essential amino acid because it cannot be made in the body, thus it is essential that it be obtained in the diet, or by supplementation. Most people obtain adequate lysine in their diet, but some may benefit from supplementation as discussed below.

The richest dietary sources of lysine include meat, poultry, and milk. Lysine is needed for proper growth, bone development, collagen formation, and tissue repair. Lysine is a key player in the production of antibodies, hormones, and enzymes. Lysine plays an essential role in the production of carnitine, a nutrient that facilitates the burning of fat.⁶ Of particular interest to many people, lysine is involved in the absorption and retention of calcium in the body, thus its supplementation may benefit those who have developed osteopenia or full blown osteoporosis, and do not otherwise consume animal protein well, or at all. Perhaps the best known role of lysine is its ability to treat and prevent the symptomatic severity of cold sores stemming from the herpes simplex virus. For managing cold sore symptoms, lysine supplementation is expected to be required for most sufferers, despite lysine dietary adequacy.

How Does Lysine Protect Against Cold Sores?

Lysine is an antagonist to L-arginine, another amino acid. When dietary arginine is consistently out of balance with dietary lysine, the herpes simplex virus is overly facilitated, possibly promoting a cold sore flare-up during conditions otherwise associated with flare-up, as in emotional or physical stress. One double blind placebo-controlled study followed 52 patients with a history of cold sore flare-ups.⁷ While receiving 3 grams (3000 mg) of lysine every day for 6 months, the treatment group experienced an average of 2.4 fewer herpes flare-ups than the placebo group, which the clinicians considered a significant difference. However, from a quality of life perspective, the lysine treated group experienced significantly less cold sore severity and faster healing. Such clinical results imply a recommended daily supplemented amount of 3 grams, or 3000 mgs. Lysine supplementation can be taken at the first sign of a cold sore flare-up, or on a regular basis as part of your diet, in the hope of preventing herpes flare-up. To facilitate lysine in preventing cold sores, and possibly outbreaks of genital herpes, it may be advantageous to reduce the intake of foods containing a high content of arginine, such as chocolate, peanuts, almond and other nuts, and seeds. Vitamin C and bioflavonoids may enhance the effectiveness of supplemented lysine.



Manufactured product information:

Manufacturer:

WN Pharmaceuticals Ltd

Size / UPC:

60's 7 77747 10276 1

NPN:

80001093

Expiry Date:

24 months from date of manufacture

Active Ingredient:

Each capsule contains:

L-Lysine (Hydrochloride)500 mg

Non-Medicinal Ingredients (in descending order):

Vegetarian capsule (carbohydrate gum, purified water), rice starch, magnesium stearate.

Appearance:

White to off white powder in a hard Vegi capsule.

Packaging:

175 cc white round bottle with safety seal under a 38 mm white induction sealed cap with vented interior seal and a label applied to the bottle. Lot number and expiry date are printed on the label applied to the exterior of the bottle.

Storage:

Store in a cool, dry place.





Dose:

According to the NHPD, the daily dose to reduce the recurrence of HSV infection is 1000 mg TID. For the maintenance of good health and collagen formation, the daily dose is 150-3000mg.⁸ For maximum benefit, avoid foods high in arginine.⁹

Directions:

(Adults): 2 capsules, 1–3 times daily, or as recommended by a physician. Consult a physician for use beyond 6 months.

Caution:

The caution as approved by the *Natural Health Products Directorate* (NHPD): KEEP OUT OF THE REACH OF CHILDREN. Consult a physician prior to use if you are following a low protein diet or if you are pregnant or breastfeeding. STORE AT ROOM TEMPERATURE IN A DARK, DRY PLACE. DO NOT USE IF SEAL UNDER CAP IS BROKEN OR MISSING.

Deficiency Symptoms:

Low levels of lysine can lead to anxiety, loss of appetite and anemia.

Drug Interactions/Contraindications:

Lysine may increase calcium absorption. Normally this interaction is favorable, but in cancer patients lysine supplementation should be guided by a physician because calcium mediates cancer growth.

Lysine supplementation is contraindicated in those with the rare genetic disorder hyperlysinemia/hyperlysinuria.

Precaution is required in those with elevated cholesterol because high intake of lysine relative to arginine is associated with raised cholesterol levels.

Precaution is required in those with compromised hepatic or renal function because supplemented amino acids or protein may further burden these organs.



Toxicity/Adverse Reactions:

In terms of adverse reactions, amounts of lysine up to 3 grams daily are generally well tolerated. Very high amounts greater than 10 to 15 grams daily may cause gastrointestinal symptoms, such as nausea, abdominal cramps and diarrhea.¹⁰





Allergen Content/Ingredient Sensitivity:

| NO | YES |
|--------------------------|------------------------|
| Artificial Colors | Starch/Modified Starch |
| Artificial Flavors | |
| Artificial Sweeteners | |
| Corn Products | |
| Egg Products | |
| Fish | |
| Gluten | |
| Hydrolyzed Plant Protein | |
| Lecithin | |
| Milk Products | |
| Peanuts | |
| Preservatives | |
| Sesame Products | |
| Shellfish | |
| Soy Products | |
| Sulphites (<10 ppm) | |
| Tartrazine | |
| Tree Nuts | |
| Wheat Products | |
| Yeast | |

ACCEPTABLE FOR THE FOLLOWING DIETARY RESTRICTION:

Free of Animal Products

NOT ACCEPTABLE FOR THE FOLLOWING DIETARY RESTRICTION:

Kosher





References:

1. Civitelli R *et al.* Dietary L-Lysine and calcium metabolism in humans. *Nutrition* 1992; 8(6): 400-5.
2. Flodin NW. The metabolic roles, pharmacology, and toxicology of lysine. *J Am Coll Nutr* 1997; 16(1): 7-21.
3. Sarubin, A. *The Health Professional's Guide to Popular Dietary Supplements*. Chicago (IL): The American Dietetic Association; 2000.
4. McCune MA *et al.* Treatment of recurrent herpes simplex virus infection with L-Lysine monohydrochloride. *Cutis* 1984; 34(4): 366-73.
5. Thein DJ, Hurt WC. Lysine as a prophylactic agent in the treatment of recurrent herpes simplex labialis. *Oral Surg Oral Med Oral Pathol* 1984; 58(6): 659-66.
6. Iach J. and Balch P, *Prescription for nutritional healing*, Second Edition, Avery Publishing Group, NY, 1997
7. Griffith RS *et al.* Success of L-lysine therapy in frequently recurrent herpes simplex infection: Treatment and prophylaxis, *Dermatologic*. 1987;175:183-190.
8. Health Canada, L-Lysine Monograph, Accessed March 2012 [Available from: <http://www.hc-sc.gc.ca>]
9. Murray, M. *The Pill Book Guide to Natural Medicines*, Bantam Books, Toronto, ON, 2002
10. Natural Medicine Comprehensive Database (NMCD), Lysine Monograph, Accessed March 2012 [Available from: <http://www.naturaldatabase.com/>]

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