

THOT L-LYSINE

100% Natural L-Lysine, obtained from plants by biosynthesis (bacterial fermentation)

90 tablets

www.thotnutrition.com

THOT NUTRITION



power of essential amino acids

The Japanese companies we collaborate with were ranked in 2022 1st and 2nd in the world in the production of essential amino acids, which places our product on

World No. 1

in the segment of Essential Amino Acids

Made in Japan



Assembled in Romania



- L-lysine is one of the 9 essential amino acids (EAA).
- L-LYSINE is particularly known for collagen synthesis and collagen matrix stabilization. Collagen is the most abundant protein in the human body, accounting for between 25-35% of total protein.
- THOT AMINOS has a significant percentage of L-Lysine in its formula, but for specific and targeted effects, Thot Nutrition has created THOT L-LYSINE with high L-Lysine content as an individual supplement.
- THOT L-LYSINE, like all Thot Nutrition products, contains only Premium Quality ingredients (pure, natural, vegan, orthomolecular, small molecule, high density)
- THOT L-LYSINE is ready for absorption and use, without the need for digestion.
- 100% plant-based formula (through bacterial biosynthesis and nano carbon filtration).
- Neutral taste. No flavors or sweeteners.

What is THOT L-LYSINE?

- **THOT L-LYSINE** contains 99% L-lysine. L-Lysine is one of the 9 essential amino acids (EAA). **The body does not produce it and it needs to be taken from the outside.**
- L-Lysine is **the most important amino acid essential in the synthesis and stabilization of collagen fibers**, but it also has other roles in the human body.
- According to EFSA (**European Food Safety Administration**), L-Lysine has claimed some **benefits** on the human body, as follows:
 - Supports **collagen synthesis**;
 - Supports the functions of the **immune system** and **cardiovascular system**;
 - Improves **liver function** and **lowers cholesterol levels**;
 - It supports **the synthesis of proteins** necessary for the maintenance of body tissues (**collagen, teeth, bones and muscles**), **increases the absorption, action and fixation of calcium, essential for optimizing muscles, bones and teeth.**

What are the Benefits of Supplementing with THOT L-LYSINE?

Functions and Benefits of L-Lysine:

- **It contributes to collagen synthesis and stabilization of the collagen matrix.** Two of the key essential elements in collagen synthesis are **L-lysine** and **vitamin C**. One is an essential amino acid and the other is an essential vitamin. None can be produced by the body and need to be taken from outside.
- **Collagen** is an essential structural protein that **provides strength, elasticity and support to many tissues, including skin, tendons, ligaments and blood vessels.** It's what actually holds our cells together, in a structured and organized form! Without a solid collagen matrix we would be nothing more than a mass of cells of different shapes and sizes.
- **Participates in protein synthesis.** L-lysine helps decode information stored in mRNA during the *translation step*, along with other amino acids. Apart from that, it is an essential amino acid that participates in the structure of proteins.
- **Supports muscle growth and recovery.** Intense workouts put a lot of strain on the body, and an optimal collagen matrix ensures strong connective tissues, reducing the risk of injury. In addition, L-lysine facilitates the production of nitric oxide, known for vasodilation and oxygenation of muscles.
- **Improves liver function and lowers cholesterol levels.** L-lysine is an essential amino acid involved in the production of digestive and metabolic enzymes that optimize triglyceride and cholesterol levels regulated by the liver.
- **Improves calcium absorption.** L-Lysine improves calcium absorption from the intestines and potentiates the effects of vitamin D. By forming a strong collagen matrix in bones, calcium is retained in bone tissue in a greater proportion.
- **Strengthens the immune system.** L-Lysine has significant antiviral activity, especially against simple herpesvirus HSV. It has immunomodulatory effects and stimulates the production of antibodies.

- **It can help manage herpes outbreaks.** L-lysine has the ability to reduce the frequency, severity and duration of herpes outbreaks. The HSV virus requires the amino acid arginine to replicate. L-lysine and arginine compete for the absorption pathway, and it is thought that increasing lysine levels and reducing arginine levels may help suppress viral replication.
- **Helps in the synthesis of hormones.** L-lysine has the potential to stimulate the release of growth hormone from the pituitary gland. Growth hormone is essential for growth, development and maintenance of optimal body composition. L-lysine may also play a role in the synthesis of serotonin, known as the "hormone of happiness," as well as other hormones, like all other essential amino acids.
- **Supports optimal brain activity.** L-lysine is involved in the synthesis of various neurotransmitters, such as serotonin, dopamine and norepinephrine, involved in *good mood and pleasure*. Optimal levels of lysine contribute to dopamine production, supporting *cognitive function, concentration, and motivation*. It oxygenates the brain by stimulating nitric oxide synthesis and reducing inflammation and oxidative stress.
- **Maintains cardiovascular health.** By engaging in collagen synthesis, L-lysine helps *maintain strong*, elastic and resilient blood vessels. In addition, it has the potential to reduce arterial plaque formation, known as atherosclerosis. Studies have also shown that L-lysine supplementation can help *lower blood pressure levels*.
- **Regulates gene expression.**

In what situations is THOT L-LYSINE supplementation recommended?

- **Beauty and rejuvenation**
 - L-lysine is taken internally to stimulate collagen synthesis, but it is also used as an ingredient in the preparation of cosmetics
- **Antiaging**
 - In addition to collagen synthesis, L-lysine participates in the activation of **mTORC1**, a complex protein complex important in cell growth and cell metabolism.
 - In addition, L-Lysine participates in **the formation of GHK** peptide (Glycyl-L-Histidyl-L-Lysine), a natural modulator in skin regeneration. This peptide is naturally present in plasma, saliva and urine, but its concentration decreases with age.
- **Proposed medical uses:**
 - Herpes simplex infection (HVS), Viral infections, Osteoporosis, Anxiety and stress, Wound healing, Cardiovascular support, Immune support, Hormonal support
- **Optimizing brain health** – lowers stress levels
- **General improvement of protein metabolism**

Ingredient:

One bottle of THOT L-LYSINE contains **90** tablets L-Lysine (999 mg/tablet)

Only L-amino acids are used (the L in front of the amino acids means it is correctly folded to the left – "ortho" means "correct"). The L-Lysine in this product is obtained 100% from plants, through state-of-the-art bacterial biosynthesis. All ingredients are natural and suitable for absorption and direct use by the human body.

Use:

In general, a dose **of 30-60 mg/kg/day** (or an average of 2-3 g/day) of L-lysine is sufficient. The upper limit is around 80 mg/kg/day. Doses may be adjusted as needed according to the following recommendations:

Adults:

- Light physical activity / **adult 70 kg: 2-3 / day** (30 mg/ kg x d⁻¹)
- Moderate physical activity / **adult 70 kg: 3-4 / day** (45 mg / kg x d⁻¹)
- Intense physical activity / **adult 70 kg: 4-5 / day** (60 mg / kg x d⁻¹)

Adolescents:

- Light physical activity / **adolescent 43 kg: 1-2 / day** (35 mg/kg x d⁻¹)
- Light physical activity / **adolescent 63 kg: 1-2 / day** (33 mg/kg x d⁻¹)

Recommended doses of essential amino acids for adults (WHO/FAO/ONE, 2007)

Aminoacid	mg/kg x d ⁻¹	per adult 70 kg
Leucine	39.00	2,730.00
Valine	26.00	1,820.00
Isoleucine	20.00	1,400.00
Lysine	30.00	2,100.00
Phenylalanine + Tyrosine	25.00	1,750.00
Threonine	15.00	1,050.00
Methionine + Cysteine	10.40	728.00
Histidine	10.00	700.00
Triptofan	4.00	280.0

Recommended doses for essential amino acids in infants, children and adolescents (WHO/FAO/ONE, 2007)

Aminoacid	0.5 or	1-2 Ani		3-10 nor		11-14 or		15-18 or		
	mg/kg x ^{d-1}	per child 5 kg	mg/kg x ^{d-1}	per child 12 kg	mg/kg x ^{d-1}	per child 23 kg	mg/kg x ^{d-1}	per child 43 kg	mg/kg x ^{d-1}	per child 61 kg
Leucine	73.00	365.00	54.00	648.00	44.00	1,012.00	44.00	1,892.00	42.00	2,562.00
Valine	49.00	245.00	36.00	432.00	29.00	667.00	29.00	1,247.00	28.00	1,708.00
Isoleucine	36.00	180.00	27.00	324.00	23.00	529.00	22.00	946.00	21.00	1,281.00
Lysine	64.00	320.00	45.00	540.00	35.00	805.00	35.00	1,505.00	33.00	2,013.00
Phenylalanine + Tyrosine	59.00	295.00	40.00	480.00	30.00	690.00	30.00	1,290.00	28.00	1,708.00
Threonine	34.00	170.00	23.00	276.00	18.00	414.00	18.00	774.00	17.00	1,037.00
Methionine + Cysteine	31.00	155.00	22.00	264.00	18.00	414.00	17.00	731.00	16.00	976.00
Histidine	22.00	110.00	15.00	180.00	12.00	276.00	12.00	516.00	11.00	671.00
Triptofan	9.50	47.50	6.40	76.80	4.80	110.40	4.80	206.40	4.50	274.50

*L-Lysine is more effectively used if taken on an empty stomach, at least 30 minutes away from meals or snacks. It does not require digestion, only dissolution. It has a very small size and is absorbed directly into the blood, is orthomolecular and does not require metabolism, being ready for use.

**Essential amino acids have NO contraindications and L-lysine is recognized at European level by EFSA as safe for administration. At very high doses (above 6 g/day), discomfort in the digestive system may occur. The body does not produce them, they need to be taken from the outside and we need them all our lives. L-Lysine is an essential amino acid. For other recommendations, consult your doctor or therapist.

How Does L-Lysine Work?

Type I collagen is the most abundant structural protein in mammals, and therefore also in humans. During biosynthesis, collagen acquires many *post-translational changes*, including **lysine changes – critical to collagen structure and functions!**

L-lysine has been found to **have a synergistic effect with vitamin C**. These two nutrients work together to promote collagen synthesis, boost immune function, and support overall health. Vitamin C helps improve the absorption and utilization of L-lysine in the body, making them a powerful combination for various benefits and beauty. L-Lysine is a very useful and effective ally for **skin, hair and nails**, improving skin elasticity **and reducing the depth of fine lines and wrinkles and contributing to healthy hair growth and nail strengthening**.

What makes THOT L-LYSINE such a special product?

- So far, the best suppliers of L-Lysine on the market have managed to deliver products based on. They have stood the test of time, but modern technology brings us to the next level. Current supplements manage to raise protein synthesis up to 20-30%. But what if I told you that you can increase this **percentage of effectiveness to almost 80% ?**
- The dietary supplement **THOT L-LYSINE** is **orthomolecular**. This means that it is properly folded to the left so that the body can use it instantly, without the need for any process before use other than dissolution.
- **THOT L-LYSINE** is **100% herbal**. The basic source of protein in nature is either plants or animals/animal products. The reality is that animals are just an intermediate organism in the vital chain, built to extract essential amino acids from plants and bring them into a single organism. Thot Nutrition understands the natural order of life and uses modern technology to produce and extract all 9 essential amino acids through biosynthesis, directly from plants, **avoiding all the harmful effects of meat consumption**. This actually means that you can have the amino acids in a pill without the hassle.
- **THOT L-LYSINE** has a **very small molecular size**. The small size allows it to penetrate into places where other amino acids cannot reach, overcoming even the blood-brain barrier (brain) or pericardium (heart).
- In addition, **THOT L-LYSINE** has a **high density** with more molecules per dose than all products currently available on the market.
- We are proud to bring to Romania the **quality of raw materials from Japan** through our top products.
- Kosher / Halal.
- No sugar or other artificial sweeteners, gluten, dairy products, fat, corn, wheat or grains, or GMOs (Genetically Modified Organisms)

For more details, visit: www.thotnutrition.com or product page: [THOT L-LYSINE](#).

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