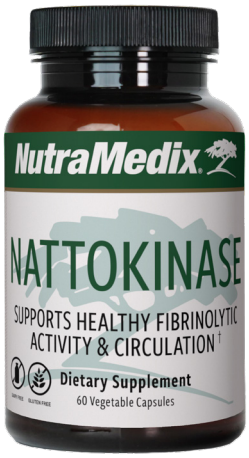
NATTOKINASE

NutraMedix

APPLICATIONS

- Cardiovascular Support
- Healthy Fibrinolytic Support
- Healthy Blood-Pressure Support
- Healthy Circulation Support
- Healthy Inflammatory Response Support



INTRODUCTION

Nattokinase is found in natto, a food that the Japanese have consumed for centuries. Natto is made from boiled soybeans (*Glycine max*) fermented with *Bacillus subtilis* var. *natto*, and nattokinase is a product of the fermentation process.[1]

In contrast to its name, nattokinase is unrelated to the known kinases and is instead a serine protease.[2,3] It has been used to support heart health in traditional Japanese health practices for centuries.[*2]

NutraMedix Nattokinase utilizes NSK-SD40®, a pure, non-GMO, nonirradiated, vitamin K2-free nattokinase from Japan Bio Science Laboratory (JBSL). According to JBSL, it was the first to isolate and market nattokinase; has patented the process to remove vitamin K2 from nattokinase for optimal cardiovascular support; and has a large body of research behind the product, generating two new clinical studies per year.[*]

NSK-SD40® nattokinase is recognized by the Japan Health and Nutrition Food Authorization (JHFA) and the Japan Nattokinase Association (JNKA), and has also been recognized as a novel food in the European Union. To be approved by the JNKA, a nattokinase product must be produced by fermentation with *Bacillus subtilis* var. *natto*, the dose must contain more than 2,000 fibrinolytic units (FU) per day, the nattokinase must be represented by fibrinolytic units (FU), the nattokinase must meet safety measures, and the product ingredients must have been confirmed by JNKA's certified labs.

NutraMedix rigorously follows current good manufacturing practices (cGMPs), as do our suppliers, including stringent ID testing, microbial testing, and heavy-metal testing. This testing is conducted on both the raw material and after encapsulation.

CARDIOVASCULAR SUPPORT

Nattokinase may help with cardiovascular support through several methods—healthy fibrinolytic-activity support, healthy blood-pressure support, and healthy circulation support.[*4]

Healthy Fibrinolytic-Activity Support

Nattokinase helps support healthy fibrinolytic activity via several mechanisms.[*] Nattokinase can hydrolyze both fibrin and plasmin, supports the conversion of endogenous pro-urokinase to urokinase, and helps maintain PAI-1 and t-PA already within the normal range—all of which are foundational for healthy fibrinolytic-activity support.[*] Nattokinase may also help maintain D-dimer, fibrin, factor VII, factor VIII, and partial thromboplastin time already within the normal range.[*2,3,5**,6**]

Notably, nattokinase does not inhibit the formation of fibrin from fibrinogen, and therefore, does not affect the healing response.[*]

Healthy Blood-Pressure Support

Nattokinase may help with healthy blood-pressure support.[*7,8**,9**] In a systematic review and meta-analysis of six randomized, controlled trials with a total of 546 participants, the researchers concluded that nattokinase showed significant support for both systolic blood pressure (SBP) and diastolic blood pressure (DBP) already within the normal range.[*7]

In a randomized, controlled trial, 73 participants ages 20 to 80 were given nattokinase (2,000 FU per capsule) or a placebo, daily for 8 weeks. Compared to the placebo group, the nattokinase group received significant support for both systolic and diastolic blood pressure already within the normal range.*[8]**

In a placebo-controlled, multicenter trial, 79 North American participants were randomly assigned to 100 mg nattokinase (NSK-SD) per day or a placebo, daily for 8 weeks. Compared to the placebo group, the treatment group experienced significant support for maintaining both SBP and DBP already within the normal range, though this was more pronounced in men.* Women experienced support for von Willebrand factor (vWF) already within the normal range.* Nattokinase also helped maintain plasma renin activity already within the normal range.*[9]**

Rat studies revealed that nattokinase may help maintain plasma fibrinogen already within the normal range, without effects on angiotensin II or angiotensin-converting enzyme.*[10]

Healthy Circulation Support

Nattokinase may help support and maintain healthy circulation.* It hydrolyzes fibrin, supports the conversion of pro-urokinase to urokinase, and maintains normal t-PA formation.*[4] In blood samples incubated with nattokinase, it helped maintain erythrocyte aggregation and blood viscosity already within the normal range.*[11]

In vitro and animal studies revealed that nattokinase helps maintain platelet aggregation and thromboxane A2 already within the normal range, protecting the integrity of the arterial walls.*[12] In a clinical study with 153 participants ages 18 and older who were given 100 mg of nattokinase per day, the researchers concluded that nattokinase helped maintain vascular health and venous sufficiency already within the normal range.*[13]

In a double-blind, placebo-controlled crossover study, nine healthy male participants were randomly assigned to a single dose of 2,000 FU of nattokinase or a placebo. Two hours later, the participants immersed their hands for 1 minute in cold water (10° C). Compared to cold-water immersion alone, the nattokinase group experienced significant support for normalization of skin temperature and blood flow, without changes in cardiac output or heart rate.*[14]**

OTHER USES

Healthy Inflammatory-Response Support

In a study examining the effect of nattokinase on high-sensitivity C-reactive protein (hsCRP), 18 participants ages 18 to 65 were given a single 2,000 FU capsule of NSK-SD nattokinase. Measurements were taken at baseline and again at 2, 4, 8, 12, and 24 hours. During the study, nattokinase helped maintain hsCRP already within the normal range, with greater support for levels in the higher range of normal.*[15]**

SAFETY AND CAUTIONS

This product contains soybeans. Nattokinase is generally well tolerated and has been used safely in amounts up to 2,000 FU daily for up to 3 years.[1]

In clinical studies, the rate of adverse effects from nattokinase was similar to placebo.[1] In vivo studies have found no evidence of toxicity.[16] There have been reports of hypersensitivity reactions, generally attributed to either nattokinase itself or poly-gamma glutamic acid (PGA), a constituent of natto.[1]

When taken with anticoagulant or antiplatelet drugs, nattokinase may increase the risk of bleeding. Rarely, nattokinase has been associated with hemorrhage.[1] Theoretically, nattokinase may have additive effects when taken with hypotensive drugs.[1]

Safety is not documented in breastfeeding or pregnant women, or in children under age 3, due to insufficient safety research.

*** This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.**

** Study used NSK-SD® Nattokinase

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NutraMedix®

SUGGESTED USE: Take one capsule one to two times daily (at least 30 min. before meals) with a full glass of water or as directed by your physician. Do not exceed recommended dosage. Do not use if taking blood platelet inhibitors such as Ticlid, Plavix, Coumadin or similar prescription medications. Do not use if pregnant or nursing. Stop use if adverse reactions develop. Keep out of reach of children.

NSK-SD® is a registered trademark of Japan Bio Science Laboratories

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NATTOKINASE

SUPPORTS HEALTHY FIBRINOLYTIC ACTIVITY & CIRCULATION †

DAIRY FREE GLUTEN FREE

Dietary Supplement
60 Vegetable Capsules

Supplement Facts

Serving Size 1 Capsules
Servings Per Container 60

Amount Per Serving	% Daily Value
NSK-SD® Nattokinase 40,000 FU/g (2,000 FU per capsule)	50mg*

***Daily Value (DV) not established**

Other ingredients: Microcrystalline Cellulose, Vegetable Capsule, Magnesium Stearate, Silicon Dioxide
Contains: Soybeans
GLUTEN & DAIRY FREE

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