

Nattokinase and Kefir



Supplement (rebranded in 2021)

Contains: **nattokinase 2000 FU, kefir mix**

Effect: makes **better blood flow** and helps to reduce the level of aminopropionic acid in the blood, thereby **reducing the risk of blood clots**.

Form: capsules

Amount: 30 capsules in the pack (for 15 days)

Dosage: 2 capsules daily with water or lukewarm water.

Produced: in Japan

Were sold over **100 million** packs since 1980s in Japan.

Age category: 40+

Product has the **patent**: No. 3572306.

Nattokinase and Kefir



Supplement contains : bacteria from fermented soybeans natto and lactic acid bacteria.

Ingredients: kefir powder (contains milk), bacillus natto culture extract (contains soy), maltodextrin, dextrin/HPMC, modified starch, trehalose, microcrystalline cellulose, calcium stearate and silicon dioxide. Contains soy and milk.

Weight: 9,6g (320mg x 30 capsules)

Amount per serving (2 capsules):

Calories: 2,60 kcal

Protein: 40,0 mg

Total fat: 40,0 mg

Total Carbohydrate: 520 mg

Sodium: 1,22 mg

Nattokinase (2000FU) 100,36 mg

Shelf-life: 2 years from the production date

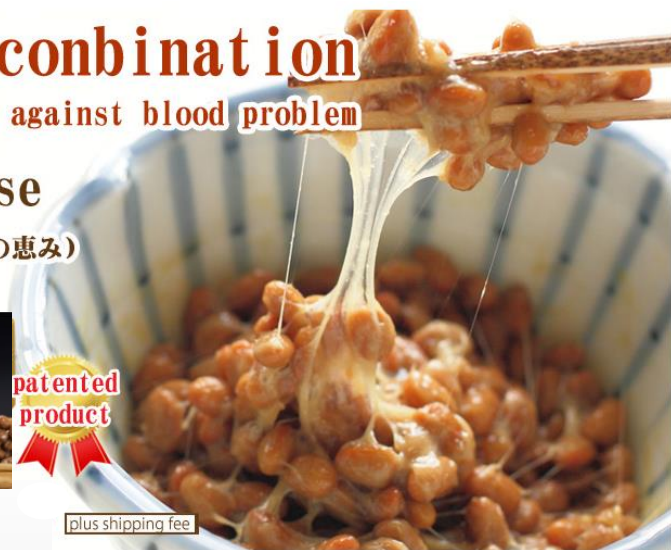
"Natto", the Japanese traditional fermented food, is famous all over the world.

The sticky part of natto is exactly the "nattokinase". The nattokinase is a protease and can resolve fibrin which is the main component of thrombus.



Golden combination for protection against blood problem

Nattokinase
+Kefir (発酵の恵み)



plus shipping fee



Japan Nattokinase Association data

Efficiency of Natto and Nattokinase

- Natto and Nattokinase

A traditional Japanese food “Natto” is a food made from soybeans fermented by *Bacillus natto*, and has been eaten since about 1,200 years ago. Enzymes that *Bacillus natto* produce by fermentation include protease and Dr. Oshima at Hokkaido Imperial University reported its purification and characteristics. Since then, it was investigated as a serine protease, and, in 1980s, the enzyme that degrades fibrin proteins (a cause of thrombi) was named as “Nattokinase”. Nattokinase is found in the sticky part of Natto.

- Function of Nattokinase

Functions of Nattokinase include directly degrading a fibrin (the main component of thrombi), activating pro-urokinase (precursor for urokinase that is a thrombolytic enzyme in the body) and increasing the amount of tissue plasminogen activator (t-PA) that produces a thrombolytic enzyme, plasmin. In addition, recent research has revealed that Nattokinase has a function of degrading plasminogen activator inhibitor, PAI-1 and reducing the euglobulin lysis time, and therefore, it has a **function of improving the thrombolytic activity**. Furthermore, the **reduction of blood pressure** has also been confirmed. 4

http://j-nattokinase.org/en/jnka_nattou_01.html

Degradation of Thrombus by Nattokinase

The Role and Danger of Thrombus

A thrombus is a blood clot formed in blood mainly consisting of a protein called a fibrin, which is necessary for restoring the damaged blood vessel and stopping bleeding. Once bleeding stops and the damaged blood vessel is restored, thrombi are degraded. This phenomenon is called the fibrinolytic action. However, when there is an imbalance between the production of thrombus (coagulation) and its degradation (fibrinolysis), or the condition that thrombus are difficult to be degraded due to aging or stress, blood cots accumulate in blood vessels. These blood clots cause thrombosis such as cardiac infarction and cerebral infarction when they block the blood vessel of the heart and brain, respectively.

Degradation of Artificial Thrombus by Nattokinase

Figure 1 shows the time course of change in artificial thrombus (white part) on which Natto was placed. As you can see, the **thrombus around Natto is degraded** as time goes by. This degradation phenomenon (action) takes place because of Nattokinase in the sticky part of Natto.

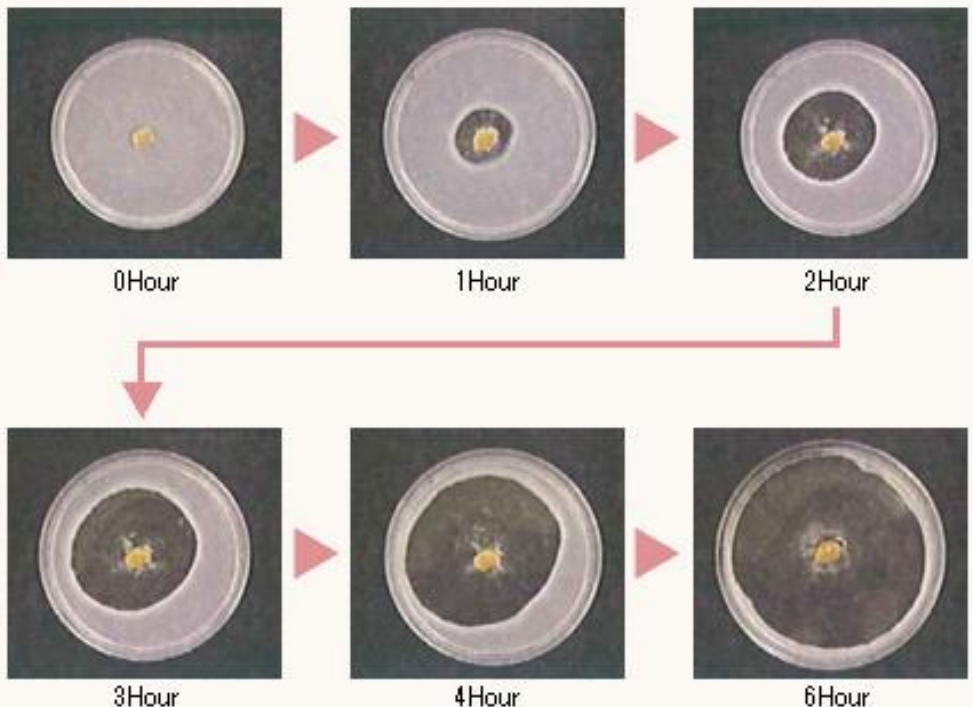
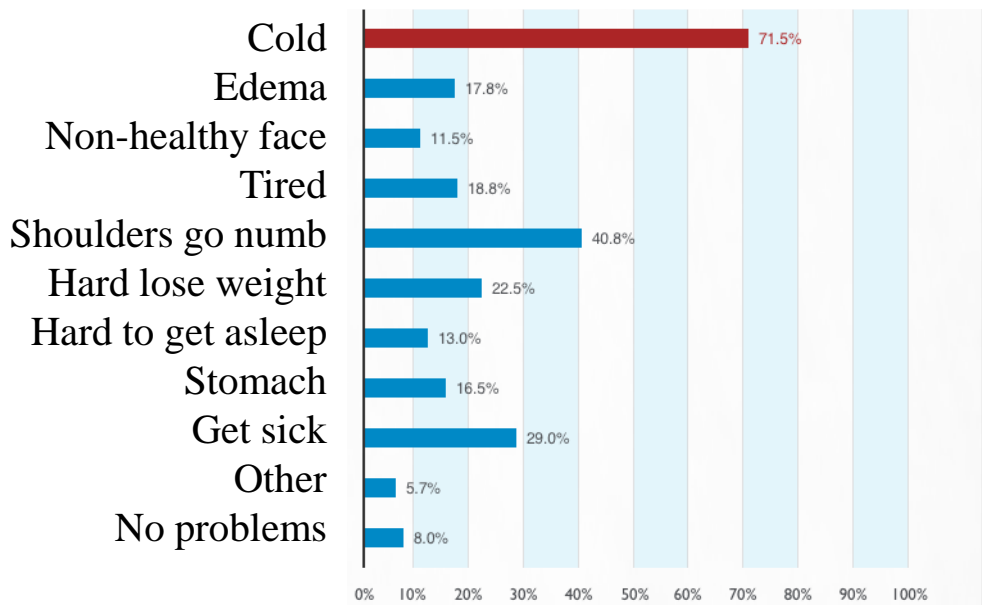


Figure 1. Time course of degradation of an artificial thrombus by the sticky part of Natto (Picture provided by a JNKA member)

In 2015, the Japan Nattokinase Association conducted a survey in Japan and surveyed 600 Japanese women between the ages of 20 and 60 - what they suffer the most in winter. The result was interesting, as more than 70% of those surveyed answered that they **suffer from freezing in winter**. Among those surveyed there were many who have been suffering from this problem for more than 10 years. Taking nattokinase in winter **will improve your body's circulation and help warm it up!**

SURVEY RESULTS

What are you suffering from during winter time?



Nattokinase does not contain vitamin K

Vitamin K2, found in fermented natto beans, activates blood clotting. An excess of vitamin K2 contributes to an increase in platelets, an increase in blood viscosity. **Compared to natto beans, nattokinase does not contain vitamin K and has a greater effect on dissolving blood clots.** Patients suffering from thrombosis often take drugs that reduce blood clotting, and in particular warfarin, and vitamin K2 is its antagonism, and reduces the effect of warfarin. In this regard, doctors often limit the consumption of foods containing vitamin K2 for such patients. Nattokinase does not contain vitamin K and therefore can be taken **by patients with thrombosis.**

Nattokinase and Kefir



Function

- 1) Preventing blood clots
- 2) Lowering blood pressure
- 3) Improving blood flow
- 4) Preventing the production of endotoxin (NKG kefir)
- 5) Improving the intestinal tract (NKG kefir)