Patent & Caregiver Education

Nattokinase

This information describes the common uses of Nattokinase, how it works, and its possible side effects.

Tell your healthcare providers about any dietary supplements you’re taking, such as herbs, vitamins, minerals, and natural or home remedies. This will help them manage your care and keep you safe.

How It Works

**Nattokinase may help prevent clot formation and reduce blood pressure. It has not been tested as a cancer treatment in humans.**

Nattokinase is an enzyme produced from nattō, a traditional Japanese food made from soybeans fermented with the bacterium, *Bacillus subtilis*. Lab studies suggest it can break down fibrin in the blood that forms clots or affect some factors that characterize Alzheimer’s disease. Human studies are limited, and suggest nattokinase may reduce high blood pressure. Although nattokinase has been promoted as an alternative anticancer treatment, clinical studies have not been conducted.

Nattokinase may increase the risk of bleeding in patients when used with blood-thinning drugs.
Purported Uses and Benefits

- **To prevent blood clots**
  Preliminary studies suggest that nattokinase may prevent deep vein thrombosis.

- **To reduce high blood pressure**
  Preliminary studies suggest nattokinase may lower blood pressure.

- **Alzheimer’s disease**
  Although animal models suggest nattokinase may degrade amyloid plaques, human studies have not been conducted.

- **Cancer treatment**
  Although nattokinase is promoted as an alternative cancer treatment, clinical data of its effectiveness are lacking.

Patient Warnings

Theoretically, nattokinase can cause an existing clot to dislodge, resulting in a stroke or embolus at a distant location. Patients with a history of deep vein thrombosis should avoid use of nattokinase.

Do Not Take If

- You have **coagulation disorders** or are currently using an **anticoagulant drug**.
- You take **aspirin** daily: Nattokinase may increase its effects and lead to excessive bleeding.

Side Effects

- May increase the risk of bleeding when used with blood-thinning drugs

Case reports

- **Shortness of breath, mild chest pain, and blood clot**: Causing a patient to undergo a repeat valve replacement after self-substituting
nattokinase for warfarin for a long period of time.

- **Internal bleeding that led to death:** In an elderly woman who took over-the-counter nattokinase for irregular rapid heartbeat, and was not taking other blood thinners.

- **Allergic reactions:** Some severe, in patients who were allergic to nattō (fermented soybeans).

- **Arm amputation:** Due to tissue death resulting from injection of an oral enzyme supplement containing serrapeptase and nattokinase in an attempt to self-treat curvature of the penis.

If you have any questions, contact a member of your care team directly. If you're a patient at MSK and you need to reach a provider after 5 p.m., during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit [www.mskcc.org/pe](http://www.mskcc.org/pe) to search our virtual library.