

## Vitamin K

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### What is it?

Vitamin K is a vitamin found in leafy green vegetables, broccoli, and Brussels sprouts. The name vitamin K comes from the German word "Koagulationsvitamin."

Several forms of vitamin K are used around the world as medicine. But in the U.S., the only form available is vitamin K1 (phytonadione). Vitamin K1 is generally the preferred form of vitamin K because it is less toxic, works faster, is stronger, and works better for certain conditions.

In the body, vitamin K plays a major role in blood clotting. So it is used to reverse the effects of "blood thinning" medications when too much is given; to prevent clotting problems in newborns who don't have enough vitamin K; and to treat bleeding caused by medications including salicylates, sulfonamides, quinine, quinidine, or antibiotics. Vitamin K is also given to treat and prevent vitamin K deficiency, a condition in which the body doesn't have enough vitamin K. It is also used to prevent and treat weak bones (osteoporosis) and relieve itching that often accompanies a liver disease called biliary cirrhosis.

People apply vitamin K to the skin to remove spider veins, bruises, scars, stretch marks, and burns. It is also used topically to treat rosacea, a skin condition that causes redness and pimples on the face. After surgery, vitamin K is used to speed up skin healing and reduce bruising and swelling.

Healthcare providers also give vitamin K by injection to treat clotting problems.

An increased understanding of the role of vitamin K in the body beyond blood clotting led some researchers to suggest that the recommended amounts for dietary intake of vitamin K be increased. In 2001, the National Institute of Medicine Food and Nutrition Board increased their recommended amounts of vitamin K slightly, but refused to make larger increases. They explained there wasn't enough scientific evidence to make larger increases in the recommended amount of vitamin K.

### How effective is it?

*Natural Medicines Comprehensive Database* rates effectiveness based on scientific evidence according to the following scale: Effective, Likely Effective, Possibly Effective, Possibly Ineffective, Likely Ineffective, Ineffective, and Insufficient Evidence to Rate.

The effectiveness ratings for VITAMIN K are as follows:

#### Effective for...

- Treating and preventing vitamin K deficiency.
- Preventing certain bleeding or blood clotting problems.
- Reversing the effects of too much warfarin used to prevent blood clotting.

#### Insufficient evidence to rate effectiveness for...

- Weak bones (osteoporosis). So far, research results on the effects of vitamin K on bone strength and fracture risk in people with osteoporosis don't agree.
- Cystic fibrosis.
- Heart disease.
- High cholesterol.
- Spider veins.
- Bruises.
- Scars.
- Stretch marks.
- Burns.
- Swelling.
- Other conditions.

More evidence is needed to rate vitamin K for these uses.

### How does it work? [Return to top](#)

Vitamin K is an essential vitamin that is needed by the body for blood clotting and other important processes.

### Are there safety concerns? [Return to top](#)

Vitamin K is safe for most people. Most people do not experience any side effects when taking in the recommended amount each day.

Special precautions & warnings:

**Pregnancy and breast-feeding:** When taken in the recommended amount each day, vitamin K is considered safe for pregnant and breast-feeding women, but don't use higher amounts without the advice of your healthcare professional.

**Kidney disease:** Too much vitamin K can be harmful if you are receiving dialysis treatments due to kidney disease.

**Liver disease:** Vitamin K is not effective for treating clotting problems caused by severe liver disease. In fact, high doses of vitamin K can make clotting problems worse in these people.

### Are there interactions with medications? [Return to top](#)

#### Major

**Do not take this combination.**

#### Warfarin (Coumadin)

Vitamin K is used by the body to help blood clot. Warfarin (Coumadin) is used to slow blood clotting. By helping the blood clot, vitamin K might decrease the effectiveness of warfarin (Coumadin). Be sure to have your blood checked regularly. The dose of your warfarin (Coumadin) might need to be changed.

### Are there interactions with herbs and supplements? [Return to top](#)

#### Coenzyme Q-10

Coenzyme Q-10 is chemically similar to vitamin K and, like vitamin K, can promote blood clotting. Using these two products together can promote blood clotting more than using just one. This combination can be a problem for people who are taking warfarin to slow blood clotting. Coenzyme Q-10 plus vitamin K might overwhelm the effects of warfarin and could allow the blood to clot.

#### Tiratricol

There is a concern that tiratricol might interfere with vitamin K's role in blood clotting.

#### Vitamin A

In animals, high doses of vitamin A interfere with vitamin K's ability to clot blood. But it's not known if this also happens in people.

#### Vitamin E

High doses of vitamin E (e.g. greater than 800 units/day) can make vitamin K less effective in clotting blood. In people who are taking warfarin to keep their blood from clotting, or in people who have low vitamin K intakes, high doses of vitamin E can increase the risk of bleeding.

### Are there interactions with foods? [Return to top](#)

There are no known interactions with foods.

### What dose is used? [Return to top](#)

The following doses have been studied in scientific research:

#### BY MOUTH:

- For bleeding disorders such as hypoprothrombinemia: 2.5–25 mg of vitamin K1 (phytonadione).
- For counteracting bleeding that can occur when too much of the anticoagulant warfarin is given: 1–5 mg of vitamin K is typically used; however, the exact dose needed is determined by a lab test called the INR.

There isn't enough scientific information to determine recommended dietary allowances (RDAs) for vitamin K, so daily adequate intake (AI) recommendations have been formed instead: The AIs are: infants 0–6 months, 2 mcg; infants 6–12 months, 2.5 mcg; children 1–3 years, 30 mcg; children 4–8 years, 55 mcg; children 9–13 years, 60 mcg; adolescents 14–18 years (including those who are pregnant or breast-feeding), 75 mcg; men over 19 years, 120 mcg; women over 19 years (including those who are pregnant and breast-feeding), 90 mcg.

### Other names [Return to top](#)

4-Amino-2-Methyl-1-Naphthol, Fat-Soluble Vitamin, Menadiol Acetate, Menadiol Sodium Phosphate, Menadione, Ménadione, Menadione Sodium Bisulfite, Menaquinone, Ménaquinone, Menatetrenone, Menatétrenone, Phytonadione, Methylphytyl Naphthoquinone, Phylloquinone, Phytomenadione, Vitamina K, Vitamine K, Vitamine Liposoluble, Vitamine Soluble dans les Graisses.

### Methodology [Return to top](#)

To learn more about how this article was written, please see the *Natural Medicines Comprehensive Database methodology*.

### References [Return to top](#)

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