



# VITAMIN K

## Regulating Blood Flow

### VITAMIN K BASICS

Also known as: Phylloquinone and menaquinones

Important for: Blood clotting, blood vessel health, bone health, heart health

Animal Sources: Cheese, meat, liver

Grain/Fruit/Vegetable Sources: Leafy green vegetables (spinach, broccoli, Brussels sprouts, cabbage, lettuce), oats, potatoes, tomatoes, asparagus, some vegetable oils, fermented soybeans

### OVERVIEW

Vitamin K is a fat soluble vitamin that occurs naturally in plants, especially leafy green vegetables, and in some dairy products. This vitamin is best known for its role in helping blood to clot properly – the “K” comes from its German name, “Koagulationsvitamin.” Vitamin K occurs naturally in two forms: K1, which is found in plants, and K2, which is a group of compounds produced by bacteria.

### DISCOVERY AND HISTORY

In 1929, Danish biochemist and physiologist Henrik Dam observed that chickens fed a fat-free diet would start bleeding. By 1935, he had discovered the substance that prevented excessive bleeding, which he named vitamin K. It was isolated in 1939.

### VITAMIN K DEFICIENCY

Vitamin K deficiency in the general population is uncommon. Vitamin K deficiency is generally caused by gastrointestinal diseases that prevent vitamin K absorption, such as Crohn's disease. Some blood-thinning medications and some antibiotics can also interfere with vitamin K absorption. Symptoms of vitamin K deficiency include:

- Cuts that won't heal
- Excessive bleeding
- Bleeding from the gums or nose

### POPULATIONS AT RISK OF VITAMIN K DEFICIENCY

- People with gastrointestinal disorders, such as Crohn's disease
- Newborns
- People in developing countries on poor diets