



Vitamin K and Osteoporosis

What is Vitamin K?

- Vitamin K is a fat-soluble vitamin needed to build and maintain strong bones. It is necessary for osteoblasts (bone building cells) to activate osteocalcin, a protein that binds calcium to bones. Vitamin K may also block the production of osteoclasts, the cells responsible for breaking down bone. It helps in blood clotting as well.

Recommended daily intake of Vitamin K

Age	Micrograms per day (mcg/day)
0-6 months	2 mcg/day
7-12 months	2.5 mcg/day
1-3 years	30 mcg/day
4-8 years	55 mcg/day
9-13 years	60 mcg/day
14-18 years	75 mcg/day
19 years and older	<ul style="list-style-type: none">• 90 mcg/day for females• 120 mcg/day for males

Food Sources

- Green leafy vegetables: kale, spinach, turnip greens, collard greens, swiss chard, mustard greens, parsley, romaine and green leafy lettuce.
- Vegetables: Brussel sprouts, broccoli, cauliflower, cabbage.
- Fish, liver, meat, eggs and cereals.

How does Vitamin K affect bone health?

- Some population studies report that low Vitamin K intakes are associated with an increased risk of hip fractures among older men and women. However, it is not certain whether the increase in fracture rate is entirely due to low vitamin K intake.

- Some scientists believe that higher intake of fruits and vegetables containing vitamin K is simply suggestive of an overall healthy diet. In that case, it could possibly be poor overall nutrition, rather than Vitamin K deficiency alone, that increases the risk of hip fracture.
- In order to better understand the relationship of Vitamin K to bone health, further research is needed.

Vitamin K supplements and bone health

- There is not enough data to recommend Vitamin K supplementation for prevention or treatment of Osteoporosis.
- Consuming a nutrient-rich diet that contains a variety of foods with special emphasis on eating green leafy vegetables may help promote strong bones.
- For strong bones and a healthy heart, it is wise to use vegetable oils (that are high in vitamin K), in moderation, as part of your fat intake.

Special considerations about Vitamin K

- Foods containing vitamin K or vitamin K supplements may reduce the effectiveness of blood thinners (such as warfarin).
- If you take a blood-thinning medication, your healthcare provider may tell you to avoid Vitamin K from food and/or supplements. It is important to follow the advice of your healthcare provider.
- Do not stop or change the way you take your medications without your healthcare provider's direction to do so. It is important to be aware that chronic use of blood thinning medications may increase the risk for bone loss.
- Speak to your healthcare provider about how to treat your medical condition while preventing bone loss.

