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Functional Medicine

QUOTE GM #37

2018-12-06

Title

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## EVIDENCE FOR MOST POPULAR VITAMIN K2 "MENAQUINONE-7" SAFETY

Nutr Rev. 2017 Jul 1;75(7):553-578. doi: 10.1093/nutrit/nux022.

### US Pharmacopeial Convention safety evaluation of menaquinone-7, a form of vitamin K.

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#### Abstract

Vitamin K plays important biological roles in maintaining normal blood coagulation, bone mineralization, soft tissue physiology, and neurological development. Menaquinone-7 is a form of vitamin K2 that occurs naturally in some animal-derived and fermented foods. It is also available as an ingredient of dietary supplements. Menaquinone-7 has greater bioavailability than other forms of vitamin K, which has led to increasing sales and use of menaquinone-7 supplements. This special article reviews the chemistry, nomenclature, dietary sources, intake levels, and pharmacokinetics of menaquinones, along with the nonclinical toxicity data available and the data on clinical outcomes related to safety (adverse events). In conclusion, the data reviewed indicate that menaquinone-7, when ingested as a dietary supplement, is not associated with any serious risk to health or with other public health concerns. On the basis of this conclusion, US Pharmacopeia monographs have been developed to establish quality standards for menaquinone-7 as a dietary ingredient and as a dietary supplement in various dosage forms.

**KEYWORDS:** MK-7; United States Pharmacopeial Convention; dietary supplements; menaquinone-7; safety evaluation; vitamin K; vitamin K2

PMID: 28838081 DOI: 10.1093/nutrit/nux022

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*In conclusion, the data reviewed indicate that menaquinone-7, when ingested as a dietary supplement, is not associated with any serious risk to health or with other public health concerns."*