

## **One Reason Why Consuming Animal Fats Is Vital**

By Dr. Ashley Armstrong Global Research, December 10, 2024 Mercola Theme: <u>Science and Medicine</u>

*Vitamin K2, found exclusively in animal fats and fermented foods, is essential for metabolic health, serving as an emergency electron carrier during cellular reductive stress* 

Unlike plant-based oils, animal fats provide vitamin K2, which helps regulate calcium distribution, ensuring it's deposited in bones and teeth rather than arteries and kidneys

Research indicates higher dietary vitamin K2 intake reduces the risk of coronary heart disease mortality and severe aortic calcification, unlike vitamin K1 found in plants

While gut bacteria can produce vitamin K2, its absorption is limited due to production location and bacterial binding, making dietary sources crucial for optimal intake

Pasture-raised animal products are superior sources of K2, with pastured chicken eggs containing 3 to 4 times more K2 than conventional eggs

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Let's discuss just one of the reasons why regularly consuming animal fats is vital for health. Animal fats contain a metabolism-boosting and heart protective nutrient that is not available in plants: Vitamin K2.

Sorry Harvard, but your 'Heart Healthy' fats and oils like olive, canola, soy bean, corn, sunflower, and peanut oils do not contain this vital nutrient.

# THE HEALTHY EATING PYRAMID

Department of Nutrition, Harvard School of Public Health



Harvard's food pyramid - these fats/oils should NOT be the foundation of a diet!

There are 2 forms of vitamin K, each supporting different aspects of health and serve unique roles in the body. Both are beneficial to consume daily!

- Vitamin K1 Primarily found in plant foods and is abundant in leafy greens and veggies. (My favorite sources are collard greens, Brussels sprouts, parsley, and green beans.)
- Vitamin K2 Only found in animal foods and fermented foods. The term 'vitamin K2' refers to a collection of forms known as 'menaquinones' that are abbreviated with 'MK' with a number attached referring to the chain length/structure size. For ex: MK-4 and MK-7.

One of the biggest health benefits of vitamin K2 consumption is that it restores metabolic health since it serves as an emergency electron carrier when cells are in reductive stress (electron build up), helping to restore proper electron flow and metabolism. Most people are not metabolically healthy, and are experiencing reductive stress.

"Mitochondrial dysfunction was rescued by vitamin K(2) that serves as a mitochondrial

election carrier, helping to maintain normal ATP production."<sup>1</sup> Since K2 fights reductive stress, it can help reverse insulin resistance and mitochondrial dysfunction.<sup>2,3</sup>

Another health benefit of vitamin K2 is that it regulates calcium — K2 prevents calcium from going to the wrong places (like kidney and arteries) and makes sure it goes to the right places (like bones and teeth).



Osteocalcin is a vitamin K2 dependent protein that the body needs to pull calcium from the bloodstream to deposit it where we want it: in the bones and teeth. Osteocalcin also stimulates the growth of new dentin, the calcified tissue underneath tooth enamel, reducing cavity risk and slowing tooth degradation.

"The relative risk (RR) of coronary heart disease mortality was reduced in the mid and upper turtles of dietary menaquinone (K2) compared to the lower ... Intake of menaquinone was also inversely related to all-cause mortality and severe aortic calcification. Phylloquinone

(K1) intake was not related to any of the outcomes."<sup>4</sup>

Vitamin K2 can be synthesized by bacteria in the large intestine. However, this bacterially produced K2 has limited bioavailability and absorption for several reasons:

- Location of production The large intestine is not the primary site of nutrient absorption in our digestive system<sup>5</sup>
- The K2 produced by gut bacteria are bound to bacterial cell membranes, making them less accessible for absorption<sup>6</sup>
- An unhealthy gut can further reduce the already inefficient production and absorption of K2<sup>7</sup>

Since absorption of bacterially synthesized K2 is generally poor, dietary sources are the

.

| Foods High in K2   |       |   |
|--|-------|---|
| Natto ——   |       | 1 T = 150 ug<br>Largely, MK-7,<br>No MK-4 |
| Goose Liver<br>Pate  | - &   | 150 ug/50 g<br>MK-4                       |
| Beef Liver   |       | 45-60 ug/2 oz<br>MK-4, 7, 9, 10,<br>11    |
| Pasture-raised<br>egg yolk   | -0-   | 32 ug / yolk<br>MK-4                      |
| Fermented cheeses<br>(Ex: aged gouda, edam, Swiss,<br>Jarlsberg, aged cheddar) | - 🔶 - | 20 ug / 1 oz<br>Combo of MK-4<br>& 9      |
| Pasture-raised<br>dark chicken meat  |       | 27 ug / 100 g<br>MK-4                     |

@strong.sistas



Fats from pasture-raised animals are going to be one of your best sources and will contain more K2 relative to animals raised in since they consume grass, which is rich in vitamin K1, which is converted to K2 by certain bacteria in the animal's gut. For example:

- Pasture-raised chicken yolk 30 to 40 ug K2/yolk
- Confinement raised chicken yolk 10 ug K2/yolk

Since animal fats are rich in K2 (especially food products from pasture-raised animals), you don't have to go crazy overboard in your fat consumption to consume sufficient amounts. K2 research and understanding is still in its infancy. But 100 to 200 ug daily intake is likely beneficial (ref: Chris Masterjohn, PhD). Here are three examples, in addition to your other food sources for the day of course!

- 1. 1 to 2 oz aged cheese, 2 pasture-raised eggs, 3 oz dark chicken meat
- 2. 1 to 2 oz aged cheese, 2 pasture-raised eggs, 1 oz beef liver
- 3. 1 oz aged cheese, 2 pasture-raised eggs, 3.5 oz ground pork

Aged cheeses and pasture-raised eggs are going to be some of your best sources — and are important to consume daily! (Or at least every other day.)

## Summary

Here are some take home points about Vitamin K2:

- Vitamin K2 is important for metabolic health, bone and dental health, heart and kidney health, hormone production, and cancer prevention.
- Animal products and natto are the best sources of vitamin K2, but one form (MK-4) is only found in animal products.
- Eating animal fats is a practical way to consume this vital nutrient (plus, animal fats tend to be lower in PUFA and higher in SFA, further supporting metabolic health).
- You don't have to go crazy overboard in your daily fat consumption to consume enough K2, but consuming the most nutrient-rich sources will ensure you regularly consume this vital micronutrient.

## Aged Cheese and Egg Sources

Looking for the highest quality cheese you can find to boost your dietary calcium? You can now buy the cheese that Dr. Mercola eats every single day with the <u>Mercola Artisanal</u> <u>Cheese Boxes</u>! Check out what Carol had to say about her recent exclusive Mercola Cheese Box order:

"Hello, I just wanted to let you know that I received my first shipment of your cheese. I have had a severe lactose intolerance for over 20 years. I always got serious cramps and twice fainted before figuring out what was causing it. I listened to your interview with Dr. Mercola and thought maybe cheese wasn't the real problem, but rather the composition of most commercially sold cheese.

I have been cautious in sampling your cheese. I started with just one small bite. I've graduated to cheese sticks. I love the taste! I'm so happy to be able to finally enjoy cheese again. Thanks so much!!!"

How awesome! The SOURCE of dairy can really impact its digestibility! The highest quality cheese you can find is restocked every Sunday evening, delivering dietary calcium, fat soluble vitamins and deliciousness directly to your door!

- 100% grass fed
- Raw aged cheese with all nutrients and enzymes intact
- Tested A2A2
- Artisan, small-batch
- GMO free, animal rennet only (NO use of Pfizer's microbial rennet)

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**Ashley Armstrong** is the co-founder of Angel Acres Egg Co., which specializes in low-PUFA (polyunsaturated fat) eggs that are shipped to all 50 states (<u>join waitlist here</u>), and <u>Nourish</u> <u>Cooperative</u>, which ships low-PUFA pork, beef, cheese, A2 dairy and traditional sourdough to all 50 states. Waitlists will reopen shortly.

#### Notes

<sup>1</sup> <u>Science. 2012 Jun 8;336(6086):1306-10. doi: 10.1126/science.1218632. Epub 2012 May 10</u>

<sup>2</sup> <u>Nutrition. 2022 Jan:93:111412. doi: 10.1016/j.nut.2021.111412. Epub 2021 Jul 15</u>

<sup>3</sup> Antioxid Redox Signal. 2021 Jan 10;34(2):99-117. doi: 10.1089/ars.2019.7908. Epub 2020 Aug 19

<sup>4</sup> J Nutr. 2004 Nov;134(11):3100-5. doi: 10.1093/jn/134.11.3100

<sup>5, 6</sup> Front Immunol. 2022 Jan 5:12:791565. doi: 10.3389/fimmu.2021.791565. eCollection 2021

<sup>7</sup> Curr Nutr Rep. 2022 Dec;11(4):765-779. doi: 10.1007/s13668-022-00438-9. Epub 2022 Sep 23

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