The Calcium Conundrum: the bad news, the good news, and the surprising new hope for bone health, heart health and more

- Have you ever taken calcium?
- Do you take vitamin D?
- This report could save your life!

by Dr. Kate Rhéaume-Bleue
Confused about calcium? Suspicious of statins? Downing vitamin D?

We need to talk.

The Calcium Conundrum Mini Report

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As promised, we’re starting with the bad news...

The verdict is in: calcium supplements substantially increase the risk of heart attack and stroke.¹ The increased risk for heart health outweighs the potential benefits for bone health, which appear to be marginal, at best.² It seems that excess calcium ends up lining the arteries, leading to hardening of the arteries, a.k.a. atherosclerosis or “heart disease”, the leading cause of death in North America. Calcium supplements don’t cause this condition, but they appear to make it much worse.

If you have taken calcium supplements, don’t panic. There is good news coming.

But first, a little more bad news, this time about statin medications. The cholesterol lowering prescriptions have been shown to increase arterial calcifications.³ Yes, the drugs people are prescribed in an effort to reduce the risk of heart attack have been shown to elevate a known risk factor for heart attacks. Incredibly, pharma-funded researchers are trying to spin this as a benefit! Here’s how this sounds: increased arterial calcifications are an established marker for increased heart attack risk. Now we know that statin medications increase arterial calcifications... so, maybe this is actually good thing, after all? Maybe this is making the plaque “stronger” and less prone to rupture. Ya, that must be it.

Sigh. No, that’s probably not it. More on statins later, in the good news section.

What if you, fortunately, have not been taking calcium supplements or statins? Don’t feel left out because I have some bad news for you, too! (Then I’ll get to the good news, I promise.)

You’ve probably been taking vitamin D. Everybody has been taking vitamin D. For over a decade vitamin D has been the darling of the nutritional world and could do no wrong. But the sunshine vitamin has a dark side, as per a 2016 paper showing vitamin D increases the rate of falls and fractures in women.⁴ True, the methodology of this study was kind of weak, but the publication lead to a small wave of experts and practitioners denouncing vitamin D. Given the widespread popularity of vitamin D the overall effect wasn’t huge but, believe me, this is just the first wave.

With all the good news about vitamin D over the last decade you had to know the vitamin D bashing would start sometime. I predict more studies to come showing bad outcomes connected to vitamin D intake. And they will be legit... sort of. These studies will only look at vitamin D isolation, and conclude that it can be harmful. That is true. The fact is that if you take too much vitamin D, on its own, bad things will happen. In particular, you will absorb excess amounts of calcium that will begin to deposit in soft tissues, like arteries. The problem is that based on these kind of studies many peoples’ knee-jerk reaction will be to just stop taking vitamin D, and that will be a baby-with-the-bathwater scenario.
OK, now for some good news!

The good news about calcium
Our tissues are super-saturated with calcium at all times. We need this for our muscles to contract, for our heart to beat, for our nerve cells to function. But the downside of having all this calcium around is that it can tend to deposit in the wrong places. So our body has a system to make sure that doesn’t happen. This system is a group of proteins that circulate, ready to pick up calcium and move it to around as necessary, making sure it doesn’t end up in arteries, kidney stones, heel spurs, etc.

Here’s the caveat: **this calcium protection system relies on vitamin K2**, a fat-soluble vitamin that partners with vitamin D to keep calcium in place. Vitamin K2 activates the proteins so they do their job. Without vitamin K2 these proteins can’t work, they circulate uselessly and calcium builds up on heart valves, carotid arteries, coronary arteries and elsewhere. When vitamin K2 levels are insufficient calcium also has much more trouble finding its way into bone, where we need it.

The good news is that you probably don’t need a calcium supplement. If you are lacking bone mineral density (osteoporosis) it isn’t because you don’t have enough calcium in your system, you have plenty. Vitamin K2 will get the calcium from your diet and circulation into the right places. More good news is that if calcium has been building up where it shouldn’t, vitamin K2 can help remove it.\(^6\)\(^7\)

Why doesn’t your doctor know about vitamin K2? Why has it been overlooked for so long? That’s an interesting story that we don’t have time for here, however I do cover it in **this book**.

The good news about statins
Statins lower cholesterol. They do. But this isn’t really good news since that probably won’t lower your chances of having a heart attack, particularly for first heart attacks.\(^8\) Statins fail at primary prevention (preventing a heart attack in someone who has never had a heart attack). I mention this because these drugs so widely prescribed and many people feel very anxious about not taking a drug that was prescribed to them, even if their gut feeling is that they should not be on the drug. You’d have to take a statin for a full five years to reduce your risk of heat attack by roughly one and a half percent. In that time you run at least a 10 percent risk of sustaining muscle damage due to the drug, elevate your risk of diabetes and, some experts say, increase your risk of dementia. **You are not being wantonly irresponsible by not taking a statin.** That is good news about statins: you don’t have to take them.

Why might statins increase arterial calcium? Well, they have been shown to inhibit vitamin K2.\(^9\) If you choose to stick with your statin, taking vitamin K2 is an especially good idea.
The good news about vitamin D
We’ve always known that the benefits of vitamin D follow a U shaped curve: too little vitamin D is a bad thing, and so is too much. But the where is the sweet spot? What is the optimal daily dose of vitamin D? Expert opinions range from 400 IU per day up to a whopping 50,000 IU per day! The real answer is... it depends on how much vitamin K2 you have in circulation.

Vitamin K2 prevents the downside of vitamin D by channeling calcium appropriately. Vitamin D toxicity is due to inadequate levels of vitamin K2. How much vitamin K2 do you need to take? What’s the optimal ratio of vitamin D to K2? This is one of the most frequently asked questions I get about vitamin K2. Since nutrients tend to be studied in isolation, rather than in combination, an optimal ratio hasn’t been established. The rule of thumb I use is 100 mcg of vitamin K2 as MK-7 (or 1,000 mcg as MK-4) for every 1,000 IU of vitamin D you take, up to 500 mcg of vitamin K2 (MK-7). After this level taking more vitamin K2 can get pricey, so add in some vitamin A (equal amounts as vitamin D) since this has a K2-sparing effect. For more on the different types of vitamin K2, food sources of vitamin K2 and why you shouldn’t be scared of vitamin A, please check out my book on vitamin K2.
The new hope for bone health, heart health and more...

Vitamin K2 is a nutrient that has been overlooked for decades, and it solves the calcium conundrum. It makes vitamin D safe and may even obviate the need for statin medications by addressing calcium laden atherosclerosis plaque directly, not just cholesterol. It is the missing piece to the puzzle of many health conditions, such as osteoporosis, atherosclerosis, aortic stenosis and others.

For the complete story on vitamin K2 check out my book, Vitamin K2 and the Calcium Paradox: How a Little Known Vitamin Could Save Your Life (HarperCollins, 2013).

About the author:

Originally from Montréal, Québec, author and naturopathic doctor Kate Rhéaume-Bleue is a graduate and former faculty member of the Canadian College of Naturopathic Medicine. Dr. Kate lectures internationally on topics related to health and wellness. She is a frequent guest on television and radio and the leading authority on vitamin K2.
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