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**Functional Medicine** 

TWEET GM #41

Title

Created

## THE GOOD, THE BAD, AND THE UGLY OF CALCIUM

We have just posted QUOTE GM #41 today, which you will hopefully read.

This article has been published at the end of November 2018 by *Clinical Interventions in Aging*. I have decided to cover this important topic after I have been shouted at by a male patient who was told to take 1,000 mcg of elemental calcium (from calcium carbonate) daily to fight osteoporosis.

At first, I find such dosage of calcium pretty scary and I never reach such amounts in my treatments. In second, I really dislike calcium carbonate for a number of reasons, and I do appreciate mentioned article shares my concerns. I refer you to the article full-text that is downloadable for free.

Consequently, I did not accept to include as much calcium in his treatment while I opted for calcium malate and calcium pidolate, both being highly bioavailable. I also like calcium orotate. I would not mind calcium citrate, easier to reach, but few patients may react to citrate depending its origin.

My rationale is the following, which anyhow reflects my general attitude towards nutrients supplementation. I test for calcium in blood, ionised calcium that reflects intracellular concentration, and calcium in 24-hour urine, as I always try to have backups. Plus, in this case, we examine different compartments: intra-cellular, extra-cellular, and losses through urine, which provide a dynamic view of calcium handling by the patient.

I am also going to take into account vitamin D3 blood level and dosage of corresponding supplement if relevant, but it often shows the case (if not in summer). I even try to know about vitamin D receptor-VDR genotype, as kinky receptors (variant genotype) imply the need for more vitamin D.

Then, last but not least, clinical goals play tremendous role in how much calcium sounds adequate, or even if calcium is "*worth the risk*". Complex rationale, I agree, and the full-text article nicely describes that challenge.

Anyhow, you will have understood that I am strongly against systematic, blind, and massive calcium supplementation for menopausal women is not my thing... The existence of guidelines recommending it? Just guidelines!