



Comments on Galli et al.: The effect of magnesium on early osseointegration in osteoporotic bone: a histological and gene expression investigation

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Dear Editor,

I read with interest the paper by Galli et al. [1]. They have shown interesting relationships of magnesium to osteointegration into osteoporotic bone. However, their opening statement, that “magnesium has a key role in osteoporosis” represents an extension of current understanding that is not really justified. It is understood that magnesium depletion and severe hypomagnesemia have profound impacts on bone metabolism and health, but the idea that, in general, osteoporosis is critically related to magnesium is just not supported by fact. In fact, a number of studies report that the addition of magnesium to calcium supplements is without any significant benefit to bone turnover or BMD (for example, Jensen C et al., *Am J Clin Nutr* 2002, 75:1114–1120). Galli et al. provide only one reference to support their statement (Shanahan, reference 29), which appears to be a review of the economic impact of supplements rather than a research paper directly examining a role for magnesium on bone. Unfortunately, one cannot assess that paper because the authors neglected to give a full

reference to the journal name, date, volume, pages, etc. I tried to locate this paper through my University library, and although I found 46 papers by a C Shanahan in 2013, this was not one of them.

The authors should have, at the very least, proofread their reference list more carefully. In addition, unless there is some startling new piece of scientific evidence in that missing paper, I suggest that the claim for a “key role” for magnesium in osteoporosis is hyperbole.

Reference

1. Galli S, Stocchero M, Andersson M, Karlsson J, He W, Lilin T, Wennerberg A, Jimbo R (2017) The effect of magnesium on early osseointegration in osteoporotic bone: a histological and gene expression investigation. *Osteoporos Int* 28:2195–2205. <https://doi.org/10.1007/s00198-017-4004-5>

A response to these comments can be found at doi: <https://doi.org/10.1007/s00198-018-4430-z>.

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