

Review of: "Magnesium and Longevity"

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Potential competing interests: No potential competing interests to declare.

The review article "Magnesium and Longevity" by Patrick Chamber summarizes the multitude of potential Mg effects with special respect to aging and age-related diseases. There are many valuable hints and pieces of information combined with a comprehensive reference list to search for more details.

There are only minor suggestions to improve the manuscript.

- I strongly recommend including an abbreviation list, and please check whether all used abbreviations were explained.
- Since Mg uptake, analysis, and homeostasis are essential for functioning, chapter IX can be moved to be the first part.
- The information regarding COVID and long COVID is, however, interesting but does not need its own chapter.
- Meaningful chapter titles would be nice – not just abbreviations. Perhaps the name of the component/parameter and the involved metabolic pathways or a link to a disease.
- Can the components discussed in chapter VII be summarized under an overarching title – what is the link between them?
- The chapter related to vitamin D (II) seems to be too short considering the role of this vitamin and the complex figure related to this topic. A more comprehensive explanation would be appreciated. Details from the figure can be explained.

Style and formats:

There is a sentence break on page 6.

Figure 4 – are the numbers references? Please explain this in the figure label.

Figure 3: use CH₃ (3 sub) as the correct chemical formula for a methyl group.

What is Magne? Perhaps a trademark symbol is missing?

Page 4: "telomers vs. those."

Full Latin names (e.g., *Candida*) should be italicized.