

Peer Review

Review of: "Magnesium and Longevity"

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I enjoyed reading the manuscript "*Magnesium and Longevity*", which explores the role of magnesium (Mg) in longevity, highlighting how this mineral influences various metabolic and physiological pathways. Magnesium acts as a cofactor in more than 800 enzymatic reactions, some of which are linked to aging-related processes, such as the synthesis of certain B vitamins, vitamin D, and melatonin. Furthermore, the manuscript identifies Mg deficiency and an imbalanced Ca:Mg ratio as prevalent concerns, particularly in the context of Western diets, reporting that Mg deficiency impairs proper DNA methylation.

Following the changes and revisions made to the manuscript, I believe the author has done an excellent job.

The abstract provides a clear overview of the article.

The introduction is clear and well-written, using very up-to-date bibliographical references and a writing style that is both technical and accessible. The conclusion section adequately summarises the relevance of Mg in longevity processes.

The author appropriately outlines the limitations of the study. I suggest adding practical recommendations for readers, such as which foods would be beneficial to consume, in addition to the importance of proper hydration and the factors to avoid, as mentioned in the conclusions.

My congratulations to the author.

Declarations

Potential competing interests: No potential competing interests to declare.