

EN
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Answer given by Mr Várhelyi
on behalf of the European Commission
(3.7.2026)

The Commission referred the evidence on lithium's potential essentiality as a trace element, including the *Nature* publication¹ and Dr Michael Nehls' 2025 lecture to the European Parliament,² to the European Food Safety Authority (EFSA). EFSA's response confirms that, as for chromium³, current evidence remains insufficient to classify lithium as essential for humans or animals, or to establish dietary reference values.

In particular, lithium does not meet the essentiality criteria for the following reasons:

- a) Lithium lacks a defined biochemical role or known homeostatic pathways in the body.
- b) Studies fail to demonstrate reproducible deficiencies or requirements for lithium in animal nutrition⁴.
- c) No proof links lithium absence in human diets to reversible functional/structural abnormalities, nor are there systems to regulate its uptake.
- d) Specific biochemical and physiological changes associated with 'lithium deficiency' in humans have not been identified.
- e) There are no known systems to ensure the acquisition, systemic regulation and utilisation of lithium in the human body or known means to prevent its excessive acquisition.

The new article published in *Nature* suggests lithium depletion may influence brain ageing in mouse models. However, accompanying analysis⁵ in the same journal stresses that human trials are lacking, and lithium's role in diets – if any – remains unproven.

EFSA will continue monitoring emerging research, but no further action is planned at this stage to classify lithium as an essential nutrient in EU legislation.

¹ <https://pubmed.ncbi.nlm.nih.gov/40770094/>.

² <https://www.youtube.com/watch?v=ww5scYAszN8>.

³ <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2014.3845>.

⁴ <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/sp.efsa.2010.EN-68>.

⁵ <https://www.nature.com/articles/d41586-025-02471-4>.