



# Vitamin D—let common sense prevail—on the balance of probabilities

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High latitude, dark skin type, overweight, inflammatory conditions, are all predisposing factors for severe vitamin D deficiency (serum 25(OH)D below 25 nmol/l) [1]. The authors of the latest rapid evidence review for vitamin D and Covid-19 [2] find the evidence not compelling enough to advise population-wide prophylactic vitamin D supplementation to prevent Covid-19 severity. They confirm, however, vitamin D's role in immune modulatory processes. Should not therefore at least those risk groups deserve to be advised on adequate vitamin D supplementation, better even, have their serum 25(OH)D assessed?

I disagree with the authors that existing national guidance in the UK on vitamin D supplementation appears appropriate. Firstly, this guidance is not well taken up [3], secondly, it does not abolish vitamin D deficiency, it just reduces it by a small degree [4], and thirdly, it completely ignores nutritional science by advising the same dose for all (400 IU), whether for a baby or an overweight adult.

The risk groups for vitamin D deficiency and severe Covid-19 disease are overlapping. Evidence for the benefits of avoiding D-deficiency during this pandemic far outweighs the theoretical risk of overdose. Physicians and chief medical officers should urgently and pro-actively seek to abolish vitamin D deficiency, now, ahead of a third wave, rather than only wait for further trial results.

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## Declarations

**Conflict of interest** The author declares that there is no conflict of interest.

**Ethical approval** Not applicable.

**Informed consent** Not applicable.

## References

1. Sutherland JP, Zhou A, Leach MJ et al (2021) Differences and determinants of vitamin D deficiency among UK biobank participants: a cross-ethnic and socioeconomic study. *Clin Nutr* 40:3436–3447. <https://doi.org/10.1016/j.clnu.2020.11.019>
2. Raisi-Estabragh Z, Martineau AR, Curtis EM et al (2021) Vitamin D and coronavirus disease 2019 (COVID-19): rapid evidence review. *Aging Clin Exp Res* 33:2031–2041. <https://doi.org/10.1007/s40520-021-01894-z>
3. Less than one third of this Scottish population sample takes vitamin D supplements. Food Standard Agency. November 2020. [https://www.foodstandards.gov.scot/downloads/Vitamin\\_D\\_research\\_data\\_tables\\_-\\_for\\_publishing.pdf](https://www.foodstandards.gov.scot/downloads/Vitamin_D_research_data_tables_-_for_publishing.pdf)
4. Zgaga L, Theodoratou E, Farrington SM et al (2011) Diet, environmental factors, and lifestyle underlie the high prevalence of vitamin D deficiency in healthy adults in Scotland, and supplementation reduces the proportion that are severely deficient. *J Nutr* 141:1535–1542. <https://doi.org/10.3945/jn.111.140012>

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