

Response to SACN Review of UK DRV for Vitamin D

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General

We congratulate the committee on an excellent and extremely comprehensive review of relationships between vitamin D status/intake and a wide range of health outcomes across the lifecourse. We applaud the impartial and detailed analysis of the available data and agree with the conclusions made.

Specific comments

We have a few detailed comments relating to individual studies, and these are presented below:

Paragraph 247

Javaid et al 2006 and Mahon et al 2010 both present relationships with 25-hydroxyvitamin D as a continuous variable, and so associations are not simply presented above and below a notional deficiency threshold.

Paragraphs 379, 382 and 383

Please note that Gale et al 2008 uses the earlier and smaller Princess Anne Hospital Cohort (the same cohort in which associations between maternal 25-hydroxyvitamin D status in pregnancy and offspring bone mass at nine years were observed by Javaid et al in 2006), and not in the later, larger Southampton Women's Survey.

Additional publications that might be considered are:

Moon RJ, Harvey NC, Davies JH, Cooper C. Vitamin D and skeletal health in infancy and childhood. *Osteoporos Int.* 2014 Dec;25(12):2673-84. doi: 10.1007/s00198-014-2783-5. Epub 2014 Aug 20. PubMed PMID: 25138259; PubMed Central PMCID: PMC4224585.

Moon RJ, Harvey NC, Davies JH, Cooper C. Vitamin D and bone development. *Osteoporos Int.* 2015 Apr;26(4):1449-51. doi: 10.1007/s00198-014-2976-y. Epub 2014 Dec 2. PubMed PMID: 25448839.

Harvey NC, Javaid MK, Poole JR, Taylor P, Robinson SM, Inskip HM, Godfrey KM, Cooper C, Dennison EM; Southampton Women's Survey Study Group. Paternal skeletal size predicts intrauterine bone mineral accrual. *J Clin Endocrinol Metab.* 2008 May;93(5):1676-81. doi: 10.1210/jc.2007-0279. Epub 2008 Feb 19. PubMed PMID: 18285416. [Includes maternal 25(OH)D offspring bone relationships]

Thacher TD, Fischer PR, Pettifor JM. The effect of nutritional rickets on bone mineral density. *J Clin Endocrinol Metab.* 2014 Nov;99(11):4174-80. doi: 10.1210/jc.2014-2092. Epub 2014 Jul 25. PubMed PMID: 25062459.

Thacher TD, Fischer PR, Pettifor JM. Vitamin D treatment in calcium-deficiency rickets: a randomised controlled trial. *Arch Dis Child.* 2014 Sep;99(9):807-11. doi: 10.1136/archdischild-2013-305275. Epub 2014 Apr 19. PubMed PMID: 24748637; PubMed Central PMCID: PMC4145444.