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Children's Food Trust response to SACN consultation on the draft Vitamin D and Health report

The Children's Food Trust is a national charity championing every child's right to eat better, and so do better. We believe all children should have the balanced diet, cooking skills and food education they need to reach their full potential.

We welcome the opportunity to respond to the Scientific Advisory Committee on Nutrition (SACN) consultation on their draft Vitamin D and Health report.

We acknowledge that there is limited information on the prevalence of clinical symptoms of vitamin D deficiency in the UK¹, however the re-emergence of rickets, particularly amongst black and Asian children^{2,3,4} during recent years is a concern and merits further consideration. We therefore welcome the SACN review considering whether the Dietary Reference Values (DRVs) for vitamin D set in 1991⁵ are still appropriate.

We support an approach whereby public health recommendations are made on a precautionary basis, in order to protect all individuals (particularly those who are more vulnerable) from poor health. As serum vitamin D at a level sufficient to protect musculoskeletal health cannot be guaranteed throughout the year from sunlight, as was previously assumed to be the case for most people, we welcome the recommendation to introduce dietary recommendations for the UK population aged 4 years and over.

As stated in the recommendations in the draft Vitamin D and Health report, the proposed Reference Nutrient Intake (RNI) of 10µg/day for children over 4 years and adults is difficult to achieve from natural food sources alone. The latest National Diet and Nutrition Survey results show that mean intakes from food sources were 2µg/day for children aged 4-10 years; 2.1µg/day for children 11-18 years; 2.8µg/day for adults aged 19-64 and 3.3µg/day for older adults - all significantly below the proposed RNI.⁶ We therefore agree that consideration needs to be given to how the proposed RNI can be achieved by the population.

In the UK, foods fortified with vitamin D as required by law (fat spreads⁷, infant formula⁸) and voluntarily (e.g. breakfast cereals, breads⁹) contribute to dietary intakes of vitamin D. If fortification is considered as one approach by which dietary intakes of vitamin D could be increased in the UK, it's important to consider:

- whether fortification alone would be sufficient to raise dietary vitamin D intakes to a sufficient level to minimise the risk of poor musculoskeletal health;
- whether fortification would need to be carried out on a mandatory or voluntary basis;
- the foods to which fortification would apply in order to raise intakes to a sufficient level across all age and population groups.

Current UK Government advice sets RNIs for certain population sub-groups at risk of vitamin D deficiency (pregnant and breastfeeding women, babies and children aged 6 months to five years, adults aged 65 and over, people who do not expose their skin to sunlight or are confined indoors for long periods of time and people who have darker skin) and advises that these groups take vitamin D supplements.¹⁰

If UK Government advice is revised to state that vitamin D supplementation is recommended for all population groups (to achieve the RNI of 10µg/day for children over 4 years and adults, and the safe intake of 8.5-10µg/day for babies under 1 year and 10µg/day for children 1-4 years), there are a number of factors that would need to be considered:

Infants and young children:

- For breastfed infants under 6 months of age, families are currently advised that supplementation is not necessary until 6 months of age, providing the mother has adequate vitamin D status (i.e. has taken supplements during pregnancy). As this may not be sufficient to maintain adequate vitamin D levels in breastfed infants, any change in recommendations on vitamin drops for breastfed babies would need to ensure the supplementation was readily available, and appropriately communicated to families via health professionals to increase awareness and take up of advice, and that supplements would provide safe levels of vitamin D for infants.
- Families would need clear advice about the vitamin D content of infant formula, and at what point vitamin D supplementation would be necessary as the volume of infant formula provided daily for a baby is reduced.
- It is currently recommended that all babies and young children aged 6 months to five years should be given a daily vitamin D supplement to help them meet the current RNI of 7.0-8.5µg/day. If the safe intake for this age group is increased to 10µg for children aged 1-3 years, available supplements may need to be reformulated to provide appropriate vitamin D levels.

Children aged 4 years and over and adults:

- If recommendations to take vitamin D supplements are made for the first time for many people within this population group, then clear information and advice would need to be available to ensure that as many people as possible are aware of the new recommendations and why these are in place, to encourage them to follow them.

Support to encourage people to follow recommendations:

- Free supplements containing vitamin D are available to pregnant women, women with a child under 12 months, and children up to the age of 4 from low-income families as part of the government's Healthy Start scheme.¹¹ If recommendations for vitamin D supplementation were widened to include children over 4 years, and adults, it should be considered whether eligibility for the Healthy Start scheme would need to be extended to support children and adults from low income groups to access the recommended supplements.
- Guidance on any new recommendations in relation to vitamin D supplementation would need to be effectively cascaded to health professionals supporting families (including GPs, midwives, health visitors, school nurses) to ensure that they can share the information with families.

Irrespective of whether strategies to support the UK population to achieve recommended intakes of vitamin D are based on fortification or supplementation, the population should still be encouraged to eat a diet which provides good sources of vitamin D (including oily fish and eggs), and to have safe exposure to sunlight. This will provide dietary benefit in addition to vitamin D (e.g. omega-3 fatty acids provided by oily fish) and continue to support adequate vitamin D levels in people who do not take supplement.

¹ Scientific Advisory Committee on Nutrition (2007). Update on Vitamin D: A position statement by SACN. Available from: www.sacn.gov.uk/pdfs/sacn_position_vitamin_d_2007_05_07.p

² Allgrove J (2004). *Is nutritional rickets returning?* Archives of Disease in Childhood: 89 699-700.

³ Shaw NJ, Pal BR. *Vitamin D deficiency in UK Asian families: activating a new concern.* Arch Dis Child 2002;86:147–9.

⁴ Ashraf S, Mughal MZ. *The prevalence of rickets among non-Caucasian children.* Arch Dis Child 2002;87:263–4.

⁵ Department of Health. *Dietary Reference Values for food energy and nutrients for the United Kingdom.* London, United Kingdom: Her Majesty's Stationery Office (Report on Health and Social Subjects; 41), 1991.

⁶ Bates B, Lennox A, Prentice A, Bates C, Page P, Nicholson S, Swan G. *The National Diet and Nutrition Survey: Results from Years 1, 2, 3 and 4 (combined) of the Rolling Programme (2008/2009 – 2011/2012).* London: TSO, 2014.

⁷ The Spreadable Fats (Marketing Standards) Regulations 1995.SI 3116/1995. Available at: www.legislation.gov.uk/uksi/1995/3116/schedule/2/made

⁸ The Infant Formula and Follow-on Formula Regulations (1995). Available at: www.legislation.gov.uk/uksi/1995/77/contents/made

⁹ Daily Mail (11th July 2011). M&S fortifies products with vitamin D to tackle rickets. Available at: www.dailymail.co.uk/health/article-2012807/Marks--Spencer-fortifies-products-vitamin-D-tackle-rickets.html

¹⁰ NHS Choices: vitamins and minerals - Vitamin D. Available at: www.nhs.uk/Conditions/vitamins-minerals/Pages/Vitamin-D.aspx

¹¹ Healthy Start webpage. Available at: www.healthystart.nhs.uk/