



BANT Response

Date: 21 July 2016

BANT Response to Public Health England's (PHE)

Announcement Regarding Vitamin D

BANT welcomes Public Health England's (PHE) recommendations that everyone should take vitamin D supplements during autumn and winter. This is advice that BANT members, known as Registered Nutritional Therapists, have been issuing to their clients since BANT's inception in 1997. BANT is however concerned that PHE's recommended dose of 10µg (400IU) might not be enough for everyone.

PHE focuses on vitamin D as "the sun vitamin" but it fails to highlight the fact that vitamin D deficiency is associated with systemic inflammation. BANT Registered Nutritional Therapists report that most of those vitamin D-deficient clients they see in their clinics also present with inflammatory bowel disease, dysglycaemias (problems maintaining normal blood glucose balance, potentially leading to adult onset diabetes), autoimmune and cardiovascular disease, amongst other conditions where inflammation is an underlying factor.

There is consistent scientific evidence that in some people with variants in vitamin D metabolism and vitamin D-receptor genes the ability to convert vitamin D into a usable form is compromised meaning, that these individuals may remain deficient despite supplementation. Thus knowing about these genetic variants would allow an appropriately trained practitioner to provide a vitamin D protocol that is tailored to these individuals' needs. As shown in clinical trials conducted in a variety of countries around the world, a simple blood test that measures serum 25-

hydroxyvitamin D confirms that even when vitamin D is supplemented at modest levels, like the 10µg (400IU) proposed by Public Health England, some people will continue to have inadequate vitamin D levels. Additionally, some of the foods that are traditionally fortified with vitamin D, like flour made from milled cereals, used for bread-making and in most commercially available breakfast cereals, are also associated with higher levels of diet-driven inflammation, known as Dietary Inflammatory Index.

Where can you find sources of vitamin D?

Vitamin D is a fat soluble vitamin whose primary source is sunlight. Very few foods contain vitamin D, hence the recommendation for supplementation.

From foods

Food sources of vitamin D include sardines, cod liver (available as a pate that can be used as a savoury spread), tinned tuna, liver, eggs. However, please note that food sources are notoriously poor. With regards to fortified foods (the equivalent of taking a supplement that's been added to your food) like orange juice, breakfast cereals BANT considers that these may be useful for those individuals who are not able to eat any other sources of vitamin D or to supplement, but strongly advises to read the labels and check for sugar content, both natural sugars and added (sucrose and fructose in many cases) as well as other undesirable ingredients.

From supplements

Vitamin D comes in two forms: D₂ (ergocalciferol) and D₃ (cholecalciferol). Vitamin D₂ is manufactured by the UV irradiation of ergosterol in yeast, and vitamin D₃ is made by the irradiation of 7-dehydrocholesterol from lanolin and the chemical conversion of cholesterol.

Both forms have been regarded as equivalent, based on their ability to combat rickets and, indeed, most steps involved in the metabolism and actions of both forms are identical and both forms effectively raise serum 25(OH)D levels. However, studies have shown that high doses of Vitamin D₂ are less potent and thus BANT recommends supplementing with Vitamin D₃.

How much will I need?

Check with your RNT for your individualised recommendations. Our registered practitioners are insured to recommend supplements where needed. This is after thorough assessment based on clinical practice framework which takes into account test results. BANT Registered Nutritional Therapists are uniquely trained to prescribe food supplements with caution, assess supplement quality, know supplement interactions with medications and appropriate dosing for the individual client.

BANT Registered Nutritional Therapists take into account individuality that enables personalisation of dietary advice based on the most up-to-date research available. They do not endorse or promote 'one-size-fits-all' advice following the health trend of the moment.

How to find your BANT Registered Nutritional Therapist

BANT, The British Association for Applied Nutrition and Nutritional Therapy, recommends that you choose a Registered Nutritional Therapist who has undertaken training at an [accredited course](#) thereby ensuring necessary training to understand the theory and practice of nutritional therapy. BANT-member Registered Nutritional Therapists are regulated by the Complementary and Natural Healthcare Council (CNHC). The CNHC holds an Accredited Voluntary Register (AVR) for the Professional Standards Authority for Health and Social Care (PSA). The PSA oversees statutory bodies and accredits organisations holding voluntary registers for health and social care occupations in the UK. By choosing Registered Nutritional Therapist, registered with the CNHC, you can be confident that they are properly trained, qualified and insured.

To find a BANT Registered Nutritional Therapist in your area click on the link:

<http://bant.org.uk/bant/jsp/practitionerSearch.faces>

FOR FURTHER INFORMATION PLEASE CONTACT:

Daniel O'Shaughnessy

Communications@bant.org.uk

Tel: +44 7540 722307

NOTES TO EDITORS:

The British Association for Applied Nutrition and Nutritional Therapy (BANT) is the professional body for Registered Nutritional Therapists. Its primary function is to assist its members in attaining the highest standards of integrity, knowledge, competence and professional practice, in order to protect the client's interests; nutritional therapy and the registered nutritional therapist.

Nutritional therapy is the application of nutrition science in the promotion of health, peak performance and individual care. It is a progressive approach to health optimisation. Registered Nutritional Therapists are recognised by the Professional Standards Authority to be as competent as other traditional healthcare providers. It has been recognised that they can make a difference by working together with healthcare providers as part of multidisciplinary teams under NHS commissioning.

References:

1. Barry, E. L., Rees, J. R., Peacock, J. L., Mott, L. A., Amos, C. I., Bostick, R. M., Figueiredo, J. C., Ahnen, D. J., Bresalier, R. S., Burke, C. A. & Baron, J. A. (2014) Genetic variants in CYP2R1, CYP24A1, and VDR modify the efficacy of vitamin D3 supplementation for increasing serum 25-hydroxyvitamin D levels in a randomized controlled trial. *J Clin Endocrinol Metab*, 99(10) pp. E2133-7.
2. Cantorna, M. T., Mcdaniel, K., Bora, S., Chen, J. & James, J. (2014) Vitamin D, immune regulation, the microbiota, and inflammatory bowel disease. *Exp Biol Med (Maywood)*, 239(11) pp. 1524-30.

3. Chowdhury, R., Kunutsor, S., Vitezova, A., Oliver-Williams, C., Chowdhury, S., Kieft-De-Jong, J. C., Khan, H., Baena, C. P., Prabhakaran, D., Hoshen, M. B., Feldman, B. S., Pan, A., Johnson, L., Crowe, F., Hu, F. B. & Franco, O. H. (2014) Vitamin D and risk of cause specific death: systematic review and meta-analysis of observational cohort and randomised intervention studies. *Bmj*, 348pp. g1903.
4. Delvin, E., Souberbielle, J. C., Viard, J. P. & Salle, B. (2014) Role of vitamin D in acquired immune and autoimmune diseases. *Crit Rev Clin Lab Sci*, 51(4) pp. 232-47.
5. De Medeiros Cavalcante, I. G., Silva, A. S., Costa, M. J., Persuhn, D. C., Issa, C. T., De Luna Freire, T. L. & Da Conceicao Rodrigues Goncalves, M. (2015) Effect of vitamin D3 supplementation and influence of Bsm1 polymorphism of the VDR gene of the inflammatory profile and oxidative stress in elderly women with vitamin D insufficiency: Vitamin D3 megadose reduces inflammatory markers. *Exp Gerontol*, 66pp. 10-6.
6. Gonzalez-Gil, E. M., Santabarbara, J., Russo, P., Ahrens, W., Claessens, M., Lissner, L., Bornhorst, C., Krogh, V., Iacoviello, L., Molnar, D., Siani, A., Tornaritis, M., Veidebaum, T. & Moreno, L. A. (2015) Food intake and inflammation in European children: the IDEFICS study. *Eur J Nutr*, [Epub ahead of print]
7. Liu, Z., Liu, L., Chen, X., He, W. & Yu, X. (2014) Associations study of vitamin D receptor gene polymorphisms with diabetic microvascular complications: a meta-analysis. *Gene*, 546(1) pp. 6-10.
8. National Institutes of Health of the United States of America (2016) Vitamin D Factsheet for Health Professionals. <https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/#en2>. Accessed online Thursday 21st July 2016.
9. Romagnoli E, Pepe J, Piemonte S, Cipriani C, Minisola S (2013) Management of endocrine disease: value and limitations of assessing vitamin D nutritional status and advised levels of vitamin D supplementation. *European Journal of Endocrinology*. **169**: R59-69.
10. Shivappa, N., Hebert, J. R., Rosato, V., Rossi, M., Montella, M., Serraino, D. & La Vecchia, C. (2016) Dietary inflammatory index and ovarian cancer risk in a large Italian case-control study. *Cancer Causes Control*, 27(7) pp. 897-906.