

PCRM.ORG

5100 Wisconsin Ave. NW, Suite 400 • Washington, DC 20016 • Tel: 202-686-2210 • Fax: 202-686-2216 • pcrm@pcrm.org

May 23, 2019

Palais des Académies Rue Ducale, 1 B - 1000 Bruxelles - Belgique contact@armb.be

Dear Dr. Casimir,

As dietitians and physicians, we are greatly concerned about errors in your recent publication "Régimes végétariens et végétaliens administrés aux enfants et adolescents." Several key statements and conclusions were not based on scientific evidence and were both erroneous and misleading. It is essential that this information be corrected.

As you know, an evidence-based, peer-reviewed publication from the Academy of Nutrition and Dietetics (AND) reached very different conclusions from your report. Citing a robust body of evidence, the AND concluded, vegan diets are "appropriate, and they satisfy the nutrient needs and promote normal growth at all stages of the life cycle, including pregnancy and lactation, infancy, childhood, adolescence, older adulthood, and for athletes."

The authors of your publication wrote that, unless individuals following vegan diets are extremely careful, their diets are likely to be deficient in high-quality protein, vitamins D and B12, calcium, iron, zinc, iodine, and DHA. Let us examine these issues.

Protein is more than adequate on vegetarian and vegan diets. The concept that there is a concern with the amino acid profiles from plants has been discredited.² Plants contain all the essential amino acids in varying amounts and, according to one large study (n=71,751), people who follow vegan diets get about twice the amount of protein recommended.³ The same study showed that people who follow vegan diets also have mean intakes above the recommended amounts for vitamins B12 and D, calcium, omega-3 fats, iron, and zinc.

The only essential nutrient that is not obtained reliably from food alone in a vegan dietary pattern is vitamin B12. Whether it is present in animal products, fortified plant foods, or supplements, this vitamin originates from microorganisms. Fortunately, most prenatal vitamins contain vitamin B12, as well as vitamin D, calcium, iron, zinc, and iodine in order to cover the needs of all pregnant and breastfeeding mothers.

For a breastfeeding infant who is nursing from a mother who supplements with vitamin B12, the lack of B12 in plants is a nonissue. Infant formula, including soy-based formula, also provides a reliable source of B12. Once a child has stopped consuming breast milk or formula,

a child can easily get B12 from a supplement or fortified foods. The planning required is minimal.

lodine was low in many Belgian children's diets in the 1980s and 1990s. This problem had nothing to do with vegetarian or vegan diets and was largely corrected through the introduction of iodized salt and the fortification of bread products with iodized salt.⁴ If, for whatever reason, iodine is not part of a mother's regular dietary routine (e.g., iodized salt), it should be supplemented, again, regardless of dietary pattern. It is not a particular issue related to vegan diets.

Iron is abundant in plant-derived foods (e.g., pulses, whole grains, green leafy vegetables, peas, pumpkin seeds, dried fruit such as raisin and figs), and iron deficiency anemia is no more common in individuals following vegetarian or vegan diets than those consuming animal products. In infants, iron stores are sufficient for the first six months, so iron-rich foods may be recommended as first foods. Many parents feed their infants iron-fortified cereals that are easy to digest. Other good choices include, as tolerated, purees of beets, lentils, and spinach, as well as added blackstrap molasses. Typically, pediatricians check iron stores around this time to ensure iron adequacy. Again, this precaution applies irrespective of dietary pattern; it has nothing to do with the use of vegetarian or vegan diets.

Vitamin D is naturally derived from sun exposure. In addition, the American Academy of Pediatrics recommends that all breastfed newborn babies receive a vitamin D supplement, regardless of dietary pattern, until they are at an age when they can safely be in the sun and/or reliably consume foods, such as fortified products, with this nutrient.⁵

Calcium is an important issue, but one that is easily addressed. Most green leafy vegetables and beans provide highly absorbable calcium. Leafy green vegetables' calcium is about twice as absorbable as calcium from cow's milk. If, as a cultural preference, one prefers calcium from a fluid beverage, fortified plant milks and juices have as much if not more calcium than cow's milk.

Omega-3 fatty acids are readily found in a wide variety of plant-derived foods and are converted by the body to their longer forms, including DHA, although the speed of conversion varies from person to person and may be affected by competing dietary fats. The likelihood of lower-than-average DHA levels is about the same in those following vegan and nonvegan diets; this is not an issue specific to those choosing vegan diets. Because DHA is not commonly found in prenatal supplements, a breastfeeding mother who wishes to take a DHA supplement will find them in readily available algae-sourced products.

Children who follow vegetarian, including vegan, diets actually have far more nutritious diets than their nonvegetarian peers. They consume less saturated fat and cholesterol and more fruits and vegetables, and they are less likely to be overweight or obese, compared with children who follow nonvegetarian diets. Pregnancy outcomes, such as birth weight and pregnancy duration, are similar between vegetarian and nonvegetarian mothers. Additionally, vegan women are less likely to have excessive gestational weight gain and are at reduced risk for complications, such as preeclampsia and giving birth preterm.

Given the health benefits that come with consuming a vegan diet, the Académie Royale de Médecine de Belgique would be remiss to suggest anything that discourages such eating by its citizens, including parents for their babies and children.

Sincerely,

Neal Barnard, MD, FACC Susan Levin, MS, RD Hana Kahleova, MD, PhD Vesanto Melina, MS, RD Reed Mangels, PhD, RD Winston Craig, PhD, MPH, RD

REFERENCES

- ¹ Melina V, Craig W, Levin S. Position of the Academy of Nutrition and Dietetics: vegetarian diets. *J Acad Nutr Diet*. 2016;116:1970-1980.
- ² Young VR, Pellett PL. Plant proteins in relation t human protein and amino acid nutrition. *Am J Clin Nutr*. 1994;59 (Suppl): 1203S-1212S.
- ³ Rizzo NC, Jaceldo-Siegl K, Sabate J, Fraser GE. Nutrient profiles of vegetarian and non vegetarian dietary patterns. J Acad Nutr Diet. 2013;<u>113:1610-1619.</u>
- ⁴ <u>Vandevijvere S</u>, <u>Mourri AB</u>, <u>Amsalkhir S</u>, <u>Avni F</u>, <u>Van Oyen H</u>, <u>Moreno-Reyes R</u>. Fortification of bread with iodized salt corrected iodine deficiency in school-aged children, but not in their mothers: a national cross-sectional survey in Belgium. <u>Thyroid</u>. 2012;22(10):1046-53.
- ⁵ Perrine CG, Sharma AJ, Jefferds MED, Serdula MK, Scanlon KS. Adherence to vitamin D recommendations among US infants. *Pediatrics*. 2010:125:627-632.
- ⁶ Piccoli GB, Clari R, Vigotti FN, et al. Vegan-vegetarian diets in pregnancy: Danger or panacea? A systematic narrative review. *BJOG*. 2015;122:623-633.
- ⁷ Stuebe AM, et al. Associations of diet and physical activity during pregnancy with risk for excessive gestational weight gain. *Am J Obstet Gynecol*. 2009;201(1).58.e1-e8.
- ⁸ Pistollato F, et al. Plant-based and plant-rich diet patterns during gestation: Beneficial effects and possible shortcomings. *Adv Nutr.* 2015;6:581-591.
- ⁹ Raghavan R, Dreibelbis C, Kingshipp BL, et al. Dietary patterns before and during pregnancy and birth outcomes: a systematic review. *Am J Clin Nutr*. 2019;109:729S-756S.