



# Alton Sustainable Eating

Healthy Food, Healthy Planet



## Are there any potential nutritional deficiencies associated with plant-based diets?

By Dee Panes, ACAN's consultant on Sustainable Eating

**📌 IMPORTANT:** While ACAN can offer general information and guidance on plant-based diet related topics, it's important to recognize that individual nutritional needs vary based on factors such as age, sex, health status, and dietary preferences. For personalized advice tailored to your unique circumstances, we strongly recommend consulting with a qualified healthcare professional or registered dietitian. They can assess your individual needs, provide personalised recommendations, and address any concerns you may have regarding your diet and nutrition.

While a well-planned plant-based diet can provide all the essential nutrients, there are potential nutritional deficiencies that we to be aware of.

VITAMIN B12 is an essential nutrient for humans and other animals. B12 is made by microorganisms living in soil and water. Humans and other animals then absorb these microorganisms into their systems through the food they eat and the water they drink. It is involved in the metabolism of every cell of the human body and plays a crucial role in maintaining the health of our blood, bone marrow, and nervous systems.

B12 deficiency affects both vegans and non-vegans alike, and is something that we should all be aware of. B12 is an essential vitamin so, it is vitally


important we get enough through our diet. Include fortified foods like plant-based milk, breakfast cereals, nutritional yeast, or take a B12 supplement to meet your daily needs.

With regards to how much YOU need see <https://nutritionfacts.org/topics/vitamin-b12/> and Dr. Greger has videos (46) on the subject. B12 supplements can be found in all reputable health stores and some supermarkets

**🍷 IRON:** Plant-based sources of iron (non-heme iron) are not as readily absorbed by the body as heme iron from animal products. To enhance iron absorption, include vitamin C-rich foods (such as citrus fruits, bell peppers, and tomatoes) with iron-rich plant foods like lentils, beans, tofu, and fortified cereals. This will boost the iron absorption substantially. In addition, adding garlic and onion to grains or legumes may significantly increase the bio accessibility of iron by up to 66% in grains and up to 73% in legumes in both their raw and



cooked forms. Nice! However, if you feel you may need to supplement for any health/medically related reason, speak to a suitably qualified health professional.

 **CALCIUM:** Dairy products are a significant source of calcium in many diets, so individuals avoiding dairy need to ensure they consume adequate calcium-rich plant foods like fortified plant milks, tofu, leafy green vegetables (such as kale and spinach), almonds, and sesame seeds. In fact, there are LOTS of plants containing calcium for you to consume.

**OMEGA 3 FATTY ACIDS:** Plant-based sources of omega-3 fatty acids (ALA) include flaxseeds(linseeds), chia seeds, hemp seeds, walnuts, and soybeans. However, these sources provide a form of omega-3 that must be converted by the body into EPA and DHA, which are found in fatty fish. Consider consuming algae-based supplements to ensure adequate intake of EPA and DHA. Fish don't make EPA/DHA they get it from the algae. Plus algae based omegas may be healthier for the environment as well as human health (see references).

**VITAMIN D:** Vitamin D is primarily obtained through sunlight exposure and fortified foods. If sunlight exposure is limited or if fortified foods are not consumed regularly, individuals may need to consider a vitamin D supplement. This affects EVERYONE not just people following a plant based diet.

**ZINC:** Plant-based sources of zinc include legumes, nuts, seeds, and whole grains. However, phytates (a type of compound) found in plant foods can inhibit zinc absorption. But, to enhance zinc absorption significantly, consume fermented foods (like tempeh and miso paste). Fermenting, soaking, sprouting and cooking grains and especially legumes boosts absorption significantly. Besides we should never eat beans without them being cooked thoroughly. Or buy canned products instead. (Check out references 5 and skip to 1hr 15, you can hear more about phytates).

**IODINE:** primarily found in seafood and iodized salt. Individuals on a plant-based diet should ensure they consume iodized salt or iodine-rich foods like seaweed (there are various types) to meet their iodine needs (see references no. 6). However, some people choose to supplement for a variety of reasons regardless of their dietary choice. Plant Based Professionals UK also give a FREE helpful guide (see reference no. 7).

TO CONCLUDE...

By being mindful of these potential nutritional deficiencies and including a variety of nutrient-rich plant foods in your diet, you can meet your nutritional needs and maintain overall health on a plant-based diet.

Consulting with a registered dietitian or nutritionist can provide personalised guidance and support in optimising your plant-based eating plan. [Nutritionfacts.org](https://nutritionfacts.org) and Plant Based Professionals UK, and [Nutritionstudies.org](https://nutritionstudies.org) also have a plethora of information and fact sheets.

#### REFERENCES:

1. Vitamin B12: <https://nutritionfacts.org/topics/vitamin-b12/>
2. Interaction of vitamin C and iron: <https://pubmed.ncbi.nlm.nih.gov/6940487/>

3. Influence of combinations of promoter and inhibitor on the bioaccessibility of iron and zinc from food grains <http://tinyurl.com/3d9af7cb>

Omega 3 Fatty Acids: <https://nutritionfacts.org/topics/omega-3-fatty-acids/> ~

4. Vitamin D - The Association of British

Dietitians: <https://www.bda.uk.com/resource/vitamin-d.html>

5. Simon Hill - Plant Proof Podcast: <https://theproof.com/biggest-myths-in-nutrition-dr.../>

6. Iodine - The Vegan

Society: [https://www.vegansociety.com/.../download.../Iodine\\_download.pdf](https://www.vegansociety.com/.../download.../Iodine_download.pdf) &

7. Iodine Plant Based Professionals UK: <https://plantbasedhealthprofessionals.com/iodine-for...>

8. Iodine on a Plant-Based Diet: Why Is it Important & How to Get

Enough: <https://nutritionstudies.org/iodine-on-a-plant-based.../>