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FITTING A VEGAN DIET INTO THE CONTEXT OF 'HEALTHY EATING'

In the last couple of years, veganism has become a food trend, hitting the mainstream as something of a new food fad. Whilst celebrities promote it for its health benefits, food 'experts' often tout it as a way to cure a seemingly infinite number of diseases.

In recent years, the popularity of vegan, vegetarian and plant-based diets has increased. The Vegan Society reports that there are three and half times as many vegans now as there were in 2006, making it the fastest growing lifestyle movement.[1] They also define veganism as: 'a plant-based diet avoiding all animal foods such as meat (including fish, shellfish and insects), dairy, eggs and honey.'[1]

The reasons why people take up a plant-based lifestyle include a mix of health, environmental, ethical and cultural factors.[1] Food trends for 2015 and 2016 also highlight a growing public interest into where and how food is grown and produced: aside from plant-based eating, trends include sustainable diets, 'clean eating' and a desire for 'natural' ingredients.[2] The actual health benefits of a vegan diet are, however, slightly harder to identify. As many of us working in the field of nutrition know, studying the diet we eat is both challenging and full of controversies.

Our knowledge on veganism is limited by its inconsistent definition by study authors; veganism is often lumped together with vegetarianism and other forms of plant-based eating. Additionally, the meticulousness with which an individual decides to follow a vegan diet and the extent of the period of veganism, may influence findings.[3] Additionally, the small vegan population (just ~1% in the UK) makes studies requiring large sample sizes difficult to complete.[1]

RESEARCH AND GUIDELINES

Research into veganism also has problems in the form of multiple confounding factors. The unavoidable fact is that when you're cutting out all animal products (including poultry, dairy, fish, gelatine, etc.), you're also likely to be cutting out much in the way of 'processed' and discretionary foods too. For example, vegans are more restricted in their intake of accessible food items such as sweets, cakes, chocolates, biscuits and many fast foods. It's also impossible to disregard the fact that vegans may simply be more astute in terms of what they are putting into their mouths.[3] Despite a slight lack in our knowledge around vegan diets, research does point to the fact that vegan, vegetarian and plant-based diets do have many health benefits.

However, for any diet or food trend that grows in popularity, nutritionists and dietitians need to have an understanding of its impact on the long-term health of individuals and, if necessary, what we can do to encourage these diets to fit in with our evidence-based healthy eating messages.

The UK Government's 2016 healthy eating guidelines[5] - the Eatwell Guide - saw a significant shift towards plant-based foods. This comes as a wealth of research points to the benefits of plant-based diets for our health and our environment. Findings from two large epidemiologic studies - The Adventist Health Study-2[7] and the EPIC-Oxford study[8] - show that vegans typically have lower BMIs,[9] lower blood cholesterol,[10]

lower risks of Type 2 diabetes,[9] and possibly a lower risk of cancer.[3,11,12,13] Another report suggests that a shift from western diets to a plant-based diet could reduce global mortality by 6-10%, while a vegan diet could help avoid 8.1 million global deaths by 2050.[4] Supporting this data, large cohort studies have linked increased red and processed meat consumption with higher mortality rates,[7] which led last year to the International Agency for Research on Cancer (IARC) labelling red and processed meat as 'probable' and 'definite' causes of cancer, respectively.[6]

The Vegan Society certainly agrees with these findings, truly believing in the diet's disease protective qualities and highlighting research which shows that vegans have a diet higher in fibre, lower in saturated fats and with higher fruit and vegetable consumption.[14,15] Set up in 1994, the Vegan Society is reportedly the world's first vegan organisation and is responsible for promoting and supporting veganism for the general public. Indeed, they first coined the term 'vegan', being the start and end of the word 'VEGetariAN'. The aim of the Vegan Society is to educate the public via the media, as well as helping, advising and supporting new and existing vegans. Interestingly, they also work to support vegans in hospital and prison settings - playing the role of advocacy officers and acting on behalf of vegan individuals to help them gain access to appropriate vegan foods. As well as their supportive roles, the Vegan Society works together with the British Dietetic Association and has recently appointed a dietitian to join their team.

So, how do we go about promoting a balanced, vegan diet? What can't be ignored is that cutting out whole food groups can ultimately leave you deficient, unless you're paying careful attention to what you're eating each day. If you are planning well, it's perfectly feasible to get all the nutrients your body needs on a vegan diet.[16] Meat, for many people, is an important source of multiple nutrients, such as protein, iron, calcium, zinc, B vitamins, healthy fats and vitamin D. Dairy foods are also an important source of calcium, protein, iodine and vitamin B12. Replacing these nutrients is of paramount importance to anyone taking on a vegan diet and, as healthcare professionals, it's our role to support plant-based eaters in doing this sufficiently.

REPLACING LOST NUTRIENTS

Luckily, there are plenty of plant-based alternatives, to many of the nutrients found in meat and dairy; however, the absorption of minerals such as iron is likely to be less efficient and it is undoubtedly harder to get a complete set of amino acids.[14] As the Eatwell Guide recommends, it is important to make sure that someone who is vegan is:

- consuming five or more portions of fruits and vegetables every day;
- basing meals around wholegrain starchy foods;
- consuming some beans, pulses and alternatives;
- and including some dairy alternative foods each day.

There are some specific nutrients that vegans may want to pay particular attention to:

Iron and protein

Iron, especially due to its limited bioavailability, can be of concern for someone following a vegan diet.[14] However, there are plenty of iron-rich plant-based foods that you can include in a vegan diet. Baked beans, kidney beans, all types of lentils, chick peas and garden peas all count as pulses and towards iron and protein intakes for vegan individuals. There are many other examples of pulses and beans too, so it's easy to ensure that there is plenty of variety in the diet. In addition, these foods are often inexpensive and can add to other health benefits such as high fibre intakes.

Eating a healthy, balanced diet for a vegan isn't as challenging as it may initially seem. . . . Vegans may also benefit from taking a vitamin B12 and vitamin D supplement as a safeguard against deficiency.

Other sources of protein and iron include plant-based alternative foods such as soy, Quorn and tofu. Wholemeal breads, fortified breakfast cereals, nuts and seeds, dark green leafy vegetables, such as broccoli and spring greens, and dried fruits are also a good source of iron for vegans. When consuming iron-rich plant foods, it's a good idea to try and consume them alongside vitamin C-rich foods, such as fruit, vegetables and potatoes, to help increase the absorption of iron.

Vitamin B12

Vitamin B12 is another nutrient that may be harder to get from a vegan diet.[14] Luckily, there are some B12-fortified foods, such as fortified breakfast cereals and fortified milk alternatives and yeast extracts, which can play an important role for vegans. Aside from this, the Vegan Society recommend that vegans, and anyone over the age of 50, take a supplement containing vitamin B12, as a safeguard against deficiency.[1]

Calcium

Calcium is another nutrient often highlighted as one to watch on a vegan diet. However, there are plenty of plant sources of calcium in the diet, making it easy for vegans to get their daily requirements. For example, fortified soya, almond and oat milks are readily available which contain calcium, vitamin D and added B vitamins. Additionally, foods such as tofu, nuts and seeds, pulses, bread (which is fortified with calcium in the UK), dried fruits and some dark green leafy vegetables such as kale, are all adequate sources of calcium for vegans.

Omega-3

Omega-3 is a very important type of fat and is incorporated into the diet mainly through oily fish. It's certainly more challenging for vegans to get a good source of quality, long-chain omega-3 fatty acids from a plant-based diet. Flaxseeds, walnuts, rapeseed oil and some soya-based foods do contain a form of α-linolenic acid omega-3, which can be converted in the body to the longer chain eicosapentaenoic (EPA) or docosahexaenoic (DHA) acids; but this is at a fairly low efficiency.[14] However, high quality, long chain, omega-3 (DHA) from algae is becoming more readily available as a vegan supplement. This is an option which can be recommended for vegans who are concerned about their omega-3 intakes.[14]

Vitamin D

Vitamin D is actually one of the most challenging nutrients to acquire in the diet, as it comes mainly from sunlight. Due to high levels of deficiency observed from the National Diet and Nutrition Survey data, suggesting that 40% of the UK population have low vitamin D levels in the winter months,[17] there is some consensus that vitamin D supplements, or a fortification strategy, could be beneficial for all members of the public.[18] Vitamin D is already fortified in some cereals, breads, milks and spreads in the UK, but as a population group, it may be beneficial for vegans to take a vitamin D supplement daily.

CONCLUSION

Eating a healthy, balanced diet for a vegan isn't as challenging as it may initially seem. Healthcare professionals such as dietitians and registered nutritionists should inform vegans that they can acquire all the nutrients they need by focusing on a diet that is in line with the Government's Eatwell Guide. That is: based on eating five or more portions of fruits and vegetables every day; including plenty of wholegrain starchy foods and consuming some beans, pulses and alternatives alongside some dairy alternatives each day. Vegans may also benefit from taking a vitamin B12 and vitamin D supplement as a safeguard against deficiency.