

SUPPLEMENTS

When following a vegan/vegetarian/plant based diet certain food groups are excluded therefore deficiencies can occur. The following vitamins and minerals should be considered:

- Vitamin B12

Vitamin B12 is found in eggs and dairy products. If these are excluded from the diet, consider fortified foods such as breakfast cereals, yeast extracts and soya products fortified with Vitamin B12

- Vitamin D

it is recommended that everyone over the age of 4 years old should take a 10 µg Vitamin D supplement daily especially in autumn and winter.

- Iodine

Typically the main sources of iodine are dairy products and seafood. Alternatives to these are iodine fortified milk alternatives and seaweed. Please note that the majority of dairy alternatives are not fortified with iodine so check the label! Seaweed contains a high concentration of iodine and should not be consumed more than once a week.

- Calcium

Dairy products such as milk, yoghurt and cheese are high in calcium. If dairy products are excluded from the diet, substitutes include fortified plant-based dairy alternatives, dried fruit, leafy green vegetables, red kidney beans, sesame seeds and tempeh.

- Iron

Rich sources of Iron are usually found in red meats. However, plant sources include pulses and legumes, dried fruits, green leafy vegetables, seeds, wholegrains, beans and lentils. Ensure you have enough vitamin C, as this helps with iron absorption!



VEGAN EATWELL GUIDE



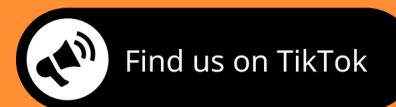
USEFUL RESOURCES:

TikTok - @completewithoutmeat

<https://www.bbcgoodfood.com/howto/guide/best-sources-protein-vegans>

<https://www.bda.uk.com/resource/vegetarian-vegan-plant-based-diet.html>

<https://www.vegansociety.com>

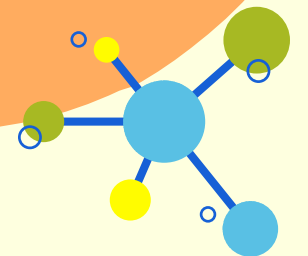


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Complete without meat

University of Chester
Nutrition Fair 2022



Alicia Beresford, Rebecca Ranson
& Catherine Seal

WHAT IS PROTEIN?

Protein is a macronutrient which means it contributes significantly to our diet.

Protein is made up of smaller molecules ('building blocks') called amino acids.

There are 20 amino acids in total that the body requires. There are non-essential amino acids which our body can make from scratch. However, there are 9 essential amino acids that we can only get from the food we eat.

9 Essential Amino Acids

- Histidine
- Isoleucine
- Leucine
- Lysine
- Methionine
- Phenylalanine
- Threonine
- Tryptophan
- Valine.

HOW MUCH DO I NEED?

Daily protein requirement is approximately 0.75g per kilogram of body weight.

Example

If an individual weighs 72kg, their protein requirements would be approximately:

$72 \times 0.75 = 54\text{g}$ of protein.



WHY IS PROTEIN IMPORTANT?



- Build and repair tissues
- Growth of bones, muscle, skin & cartilage
- To make enzymes and hormones
- Form part of red blood cells, providing the body with oxygen
- Used as an energy source (4 kcal/g)

PLANT-BASED PROTEINS

Plant based proteins are derived from plants only. Examples of these include: Pulses (beans, lentils and chickpeas), seeds, nuts, oats, soya, tofu.

POTENTIAL BENEFITS:

Consumption of a **healthful plant based diet**, one that includes higher intake of fruit, vegetables, fibre, plant protein, plant based unsaturated fatty acids and phytochemicals, is **associated** with a:

- Lower risk of cardio vascular disease
- Lower blood pressure
- Lower risk of Type 2 Diabetes
- Reduced total cholesterol.

Please be mindful that these benefits are associated with a healthful plant based diet. Unhealthful plant based diets, those that include higher intakes of juices and sweetened drinks, refined grains, starchy foods and sweets, are associated with an increased risk of cardio vascular disease.

PROTEIN COMPLEMENTATION

Complete proteins have all of the essential amino acids our bodies need, animal based proteins are considered complete proteins. Incomplete proteins do not contain all of the essential amino acids, most plant-based proteins are considered incomplete, these therefore need to be complemented with another protein source to become complete.

HOW TO COMPLEMENT PLANT-BASED PROTEINS

Pair plant based proteins together to get all 9 essential amino acids:

Beans with grains/nuts/seeds

Vegetables with grains/nuts/seeds

Grains with legumes

Nuts/seeds with legumes

Examples of protein complementation are:

- Peanut butter on wholewheat bread
- Wholewheat pitta and hummus
- Chickpea and sunflower seed salad
- Beans on toast
- Rice and beans

