

Pulses An edible seed that grows in a pod. Pulses include all beans (e.g. haricot beans and kidney beans), peas (e.g. chick peas and garden peas) and lentils.

Nutritional value: Pulses are high in protein, starchy carbohydrate, vitamins and minerals (particularly iron). Pulses are low in fat.

Pulses count towards your 5-a day but only ever count as 1 portion because they don't give the same mixture of vitamins and minerals as fruit and vegetables (with the exception of green beans).

Key vocabulary

Anaphylaxis	A severe, potentially life threatening allergic reaction.
Allergens	Substances that can cause an allergic reaction.
Pulses	Including beans and lentils, the seeds of legume plants.
Legumes	Upright or climbing beans or plants.
Kwashiorkor	Protein deficiency. Symptoms include: weight loss, visible ribs, enlarged tummy, sunken eyes.
Low biological value	Protein foods lacking one or more of the essential amino acids.
High biological value	Protein foods containing all of the essential amino acids.
Complementary protein	Combining two or more LBV foods to ensure that the diet provides adequate amounts of all the essential amino acids. E.g. beans on toast.

Nuts have a long shelf life as they have a hard outer shell. They tend to be an expensive commodity,

Nutritional value: Nuts aren't eaten in large amounts however they do contain a range of nutrients. They are a good source of protein and a good source of unsaturated fats. They also contain many vitamins and minerals.

Uses: Nuts can be used in sweet or savoury dishes to add flavour, texture and colour. They are useful in vegetarian meals, such as nut roast, and can be used in stuffing or sprinkled on salads.

Vegetarians

	meat	poultry	fish	eggs	dairy	honey
Lacto	x	x	x	x	√	√
Lacto-ovo	x	x	x	√	√	√
Vegan	x	x	x	x	x	x
Pescatarian	x	x	√	√	√	√

The main nutrients that vegetarians need to consider are:
Iron—(pulses, nuts, dried fruit, wholemeal bread and flour) Iron is not as easily absorbed from these foods as it is from meat.

Selenium—needed for the immune system to function properly. Can be found in nuts, eggs and bread.

Vitamin B12—needed for a healthy nervous system. Can be found in dairy foods, fortified breakfast cereals, fortified soya milk.

Structure of protein

Proteins are made up of big molecules called amino acids. The molecules join together to form a chain. Different foods contain different amounts of amino acids.



Animal sources	Plant sources
Meat, fish, dairy, eggs •Contain the 8 ESSENTIAL AMINO ACIDS our body needs. •Have a high biological value (HBV).	Beans, peas, lentils, nuts, seeds •Lack one or more of the 8 ESSENTIAL AMINO ACIDS. • Have a low biological value (LBV) • Soya beans are the exception here.

Seeds A seed is the part of the plant that contains the embryo from which a new plant will grow. E.g. sesame, sunflower, poppy and pumpkin seeds.

Nutritional value: Seeds are a good source of protein, B group vitamins, and many minerals including calcium, iron and zinc.

Uses: Seeds can add texture, flavour and nutritional value to dishes.

Alternative proteins

Also known as novel protein foods (NPFs), these products are based on vegetable protein and micro organisms (microscopic organisms such as fungi).

Soya beans— grow in pods and can be used to make soy sauce, ground into flour and made into soya milk.

Textured vegetable protein (TVP)— meat-like product made from soya flour. TVP can be produced as mince or chunks.

Tofu—made from setting soya milk, Tofu can be soft (used in place of dairy or eggs), or firm (e.g. chunks used in stir fries)

Quorn (mycoprotein) - This made from a fungi. It is made by mixing it with egg white and seasoning.

Protein

Is essential for growth and repair and the maintenance of good health. It also provides us with some energy.

Deficiency—too little protein can result in wasting and shrinkage of muscle tissue, as well as slow growth. In extreme cases it can lead to Kwashiorkor.



Excess—too much protein can be used as energy. If it is not used for energy, it will be stored as fat which leads to weight gain.