

PLAN WISELY FOR VEGETARIAN DIET

When planning for vegetarian diet, we need to include different grains and cereals, dried beans and their products, nuts and seeds, vegetables, fruits, dairy and eggs. This ensures our body to have balanced nutrition.



 Take a variety of whole grains, vegetables and fruits; vegetables and fruits rich in vitamin C increase iron absorption;



 Choose tofu, soy beans, dried beans, nuts and seeds;



 Select more dark green vegetables for more iron and calcium;



 Pick eggs or dairy for vitamin B12.

Online version



Department of Health

Nutrients that vegetarians need to pay attention to in meal planning

Protein

- Protein is made up of 20 different amino acids. Nine of them are essential amino acids (EAAs) that we need to obtain from diet because our body cannot produce them.
- Animal protein, found in egg, milk, cheese and yoghurt, contains all 9 EAAs.
- A well planned vegetarian diet consisting of different food groups provides adequate protein too. Among plant foods, only soy beans and quinoa contains all EAAs. The rest may lack of one kind or the other. For vegans not having eggs or dairy in their daily diet, they can get all EAAs they need by eating a variety of plant foods including:
 - Assorted dried beans such as soy beans, chick peas, lentils, dahls, red kidney beans, adzuki beans, green beans, black-eyed peas, etc.
 - Tofu and soy products
 - Nuts, peanuts and their pastes
 - Seeds like sunflower seeds or sesame, etc.
 - Grains like rice, wheat, oatmeal, barley, quinoa or buckwheat, etc.



“Plant-based milk” or nut beverage

- Nut beverage, rice beverage or rice milk contains less protein than cow’s milk or soy milk. Not all are fortified with calcium.
- When choosing these products in place of cow’s milk or soy milk, we need to check their calcium content from the nutrition label.

Vitamin B12

- Vitamin B12 is essential for DNA synthesis, red blood cells production and keeps nerve cells healthy. Vitamin B12 deficiency can lead to serious health problems like anemia, inhibited cell division and neurological diseases.



- Adults need 2.4 micrograms (μg) vitamin B12 daily. Pregnant and breastfeeding mothers need 2.6 and 2.8 micrograms (μg) daily.
- Vegetarians can obtain vitamin B12 from milk, cheese, yoghurt, eggs and foods fortified with vitamin B12 (such as breakfast cereal, soy milk or nut beverages).

	Vitamin B12 content (μg)
1 boiled egg	0.56
1 cup of milk	0.9-1.3
1 ounce of assorted cheese (28g)	0.1-0.7
1 tub of yoghurt (150mL)	0.6-0.9

(Source: The Nutrient Data Laboratory, United States Department of Agriculture)

- Vegetarians should be cautioned about vitamin B12 deficiency due to its limited source. Those who don't have eggs or dairy should take a vitamin B12 supplement. During pregnancy and breastfeeding or planning for pregnancy, vegetarian women should take vitamin B12 supplement to prevent themselves from vitamin B12 deficiency, which can affect their baby's brain and nervous system.

Iron

- Vegetarians can get their iron from iron-rich foods such as eggs, soy beans and tofu, dried beans, dark green vegetables, seeds, nuts, whole grains, fortified breakfast cereals and dried fruits.



- Vitamin C helps iron absorption. Add bell peppers, broccoli, tomato, etc to the dishes of tofu, dried beans or nuts.
- Choose more vitamin C rich fruits, like orange, kiwifruits, strawberries, papaya, cantaloupe and guava, etc.



Zinc

- Dairy (including milk, cheese or yoghurt), dried beans, peanuts, seeds and nuts are good source for zinc for vegetarians.



Eating Tips:

- Avoid drinking a large amount of tea and coffee. Tannic acid in these drinks reduces the iron and zinc absorption in the gut.

Calcium

- Vegetarians can obtain calcium from milk, cheese, yoghurt, calcium-fortified soy milk, tofu, soy bean products (e.g. soybean curd slab), dark green vegetables (e.g. choy sum, Chinese kale, bok choy, broccoli, spinach and okra), black sesame, nuts, orange and figs.



- Have 1-2 cups of milk or calcium-fortified soy milk and choose more calcium rich foods every day.
- Vitamin D helps the body absorb calcium. Go outdoors daily and expose your face, arms and legs to sunlight. This allows the body to make vitamin D.

Iodine

- Iodine is necessary for the normal functions of the thyroid gland. Iodine deficiency affects growth and brain development of foetus, infants and young children.
- Seaweeds and kelp are rich in iodine. Vegetarians may obtain iodine from eggs and dairy products too.
- Use iodised salt in place of table salt in cooking. Add a slight amount just before serving.
- Pregnant and lactating women should take a prenatal multivitamin/multimineral supplement containing iodine. This ensures an adequate iodine intake to support the growth and development of the baby.



Omega-3 fatty acids

- Vegetarians can obtain alpha-linolenic acid (ALA) from vegetable oils (e.g. soy bean oil, canola oil, sesame oil and sunflower oil, etc.), walnuts and flaxseeds.
- Omega-3 fatty acids including DHA and EPA[#] can be made from ALA in our body to a certain extent but the conversion ability is different among us.
- DHA is important for brain and eyes development of foetus and infants. During pregnancy, a woman needs more DHA from the second trimester onwards. Pregnant and lactating vegetarians may consider taking DHA supplement.



[#] DHA is docosahexaenoic acid, EPA is eicosapentaenoic acid.

Other eating tips

- Use cooking oils with higher unsaturated fatty acids content, such as olive oil, canola oil, sunflower oil, corn oil and peanut oil. Coconut oil and palm oil contain large amount of saturated fatty acids which increase the risk of cardiovascular diseases.
- Choose natural ingredients more often. Some processed vegetarian food products are deep-fried (e.g. deep-fried bean curd and bean sheets); or with added salt (e.g. soy chicken, vegetarian meat substitutes, egg tofu). We should not have them frequently.



- When choosing pre-packaged foods, read the ingredients list and avoid choosing products made with 'coconut oil' or 'palm oil'. Check the nutrition label and choose low fat options.
- At the same time, read the ingredients list and avoid choosing products made with 'hydrogenated vegetable oil', 'shortening', 'partially hydrogenated vegetable oil', 'hydrogenated fat' or 'margarine' to limit trans fatty acid.

When choosing pre-packaged foods

Check if the products have been fortified with calcium, iron, vitamin B12 and vitamin D. Read the ingredient list and the nutrition label on the package. The nutrition label tells you the nutrient contents of the product.

Vitamin B12

- Look for 'Vitamin B12' from the ingredients list.
- In this example, the product contains 2 µg vitamin B12 per 100g.

Calcium

- Look for 'Tricalcium Phosphate' or 'Calcium Carbonate' from the ingredients list.
- In this example, the product contains 350 mg calcium per 100g.

Nutrition Information 營養成分	
Per 100g/每100克	
Energy/熱量	41Kcal/千克
Protein/蛋白質	1.8g/克
Fat, total/脂肪總量	1.5g/克
- Saturated fat/飽和脂肪	0.5g/克
- Trans fat/反式脂肪	0g/克
Carbohydrate/碳水化合物	5.0g/克
- Sugars/糖	5.0g/克
Sodium/鈉	40mg/毫克
Calcium/鈣	350mg
Iron/鐵	12mg
Vitamin B12/維生素B12	2µg
Vitamin D/維生素D	5µg

Vitamin D

- Look for 'Vitamin D' from the ingredients list.
- In this example, the product contains 5 µg vitamin D per 100g.

Iron

- Look for 'Reduced Iron' or 'Iron' from the ingredients list.
- In this example, the product contains 12 mg iron per 100g.

Principles in adopting a vegetarian diet

- 1 Eat a variety of foods, avoid picky eating;
- 2 Choose different whole grains, vegetables and fruits. Vitamin C rich fruits and vegetables increase iron absorption;
- 3 Consume moderate amount of egg, milk and its alternatives and different dried beans, nuts and seeds;
- 4 When choosing pre-packaged foods, check if the products have been fortified with calcium, iron, vitamin B12 and vitamin D;
- 5 Avoid drinking tea or coffee with meals. This limits tannic acid interfering the gut absorption of iron and zinc;
- 6 Have sun exposure to obtain enough vitamin D;
- 7 Consult health care professionals about the needs for nutrient supplements, e.g. vitamin B12, omega-3 fatty acids and iodine, etc. This is particularly important when you are planning pregnancy, pregnant or breastfeeding.