

Vegetarian: Lacto, Ovo, Pesca, Vegan

A vegetarian diet is defined as a diet that does not include any meat, poultry or seafood. Some variations include lacto, ovo, or lacto-ovo vegetarian which are diets that include dairy, eggs, or both, respectively. Vegan diets exclude all animal derived products and byproducts including meat, fish, seafood, dairy, egg, or honey. Excluding animal products can decrease essential nutrients in the diet such as iron, vitamin B12, and omega-3 fatty acids. Consult with a sport dietitian to ensure energy and nutrient intake is optimal to support performance and recovery if following a vegetarian or vegan diet.

In contrast, a 'plant-based' diet involves eating more whole grains, fruits, vegetables, nuts & seeds, legumes and healthy oils. Animal products, including meat and poultry, are still consumed but in small amounts and less frequently.

Pay Close Attention to These Nutrients

Calories - Eating a large amount of vegetables throughout the day tends to provide lower calories per volume of food. Dietary fiber is filling, but not energy dense, which can potentially cause calorie deficits, especially for athletes with high training volumes.

Protein - Most plant-based proteins do not contain all of the essential amino acids and are not absorbed as readily as animal-based proteins. This can limit muscle protein synthesis due to a low intake of leucine, one of the branch chain amino acids (BCAAs).

Fatty Acids - Omega-3 fatty acids, especially EPA and DHA are found in limited quantities in plants but in higher concentrations in fish and algae.

Micronutrients - Vitamin B12, vitamin D, calcium, zinc, iron, and iodine are limited in plant-based foods. These micronutrients are essential for red blood cell and bone formation, thyroid and immune system function, and energy production

Eating More Plants

- Can increase fiber and prebiotic consumption which helps diversify the gut-microbiome and promotes bowel regularity.
- May be linked to lower body weight due to lower energy intake and higher fiber consumption.
- Including more plants in your diet improves nutrient intake, especially antioxidant and anti-inflammatory nutrients to protect the body.



Nutrients of Importance

Foods	Heme Iron	Non-Heme Iron	Vitamin D	Calcium	Zinc	Vitamin B12	Omega 3 Fatty Acids (EPA/DHA)
Tuna	✓		✓	✓		✓	✓
Salmon	✓		✓	✓		✓	✓
Egg, whole	✓		✓		✓	✓	
Yogurt				✓	✓	✓	
Cheese				✓	✓	✓	
Fortified milk			✓	✓		✓	
<i>Tofu</i>		✓		✓	✓		
<i>Lentils</i>		✓			✓		
<i>Beans (kidney, black, garbanzo)</i>		✓			✓		
<i>Fortified Cereal</i>		✓	✓			✓	
<i>Seeds (pumpkin, chia, hemp)</i>					✓		✓
<i>Nuts (walnuts, almonds, cashews)</i>				✓	✓		✓
<i>Nutritional yeast</i>						✓	
<i>Fortified Orange Juice</i>			✓	✓			
<i>Spinach</i>		✓					
<i>Sun-Dried Mushrooms</i>			✓				

*Vegan Sources (in italics)

Plant-Based Meal and Snack Suggestions

Meals

- *Three bean veggie chili with soy crumble and peanuts*
- *Teriyaki bowl with tempeh, veggies, edamame, and sunflower seeds*
- *Barbecue lentils with veggies, hemp seeds, roasted chickpeas, and cilantro*

Snacks

- *Salted edamame and cherry tomatoes*
- *Apple slices topped with nut butter*
- *Dried apricots or apple, cashews, pumpkin seeds, sunflower seeds*

Athlete Recommendations:

Strategies for Vegan Athletes

- Eat a variety of protein-rich plant-based foods.
- Consider supplementing with iron and vitamin B12 after speaking with a dietitian.
- Use nutritional yeast in recipes to add vitamin B12.
- Use iodized salt rather than sea salt for improved iodine intake.
- Choose soy milk or fortified plant-based milks; look for ones with >10 g protein per cup.
- Soy products (e.g. tofu, edamame, tempeh, soy milk and yogurt) are excellent sources of vegan protein and rich in leucine.

Strategies for Vegetarian Athletes

- Include dairy, eggs, or fish in each meal to meet protein and nutrient needs.
- Eat a variety of plant-based protein sources throughout the day to ensure all essential amino acids are consumed.