

Step Right Up to Healthy Eating

Vitamins and Minerals for Athletes

Vitamins and minerals serve hundreds of functions in the human body. We can't live without them! Fortunately, vitamins and minerals are found in a wide variety of foods.



Are there really enough nutrients in food to support the demands of training and competition?

Yes! The key is to eat enough and to make healthy choices for your meals and snacks. Canada's Food Guide at www.myfoodguide.ca is an excellent starting point for a healthy eating plan for athletes. However, you may need to eat more servings from each of the four food groups to get enough energy, vitamins and minerals to support your training. The following nutrients are of special concern for athletes.

Iron

Iron is critical for athletes because it helps your body use and carry oxygen to your active muscles. You may need more if you train hard. Iron deficiency can lead to anemia, fatigue, low motivation and increase your risk of getting sick.

For a healthy iron status:

- Athletes, especially women, teens, distance runners and vegetarians, should have their iron checked periodically by their doctor. Taking iron supplements without having your blood checked first is not a good idea. Too much iron from supplements can be toxic.
- Make sure you eat enough iron rich foods every day. Iron is found in:
 - Meat, poultry and fish** – The iron in these foods is absorbed best.
 - Beans, lentils, seeds, soy, whole grain or fortified cereals, breads and pastas** – Iron from plant sources is not well absorbed so include a source of vitamin C like citrus fruit and juices, strawberries, bell peppers or broccoli to help your body absorb the iron.

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B-vitamins

Members of the B-vitamin family are needed for releasing energy in your body, building and repairing tissues and ensuring healthy red blood cells. A well balanced diet with enough calories will provide you with all your B-vitamins. However, if you avoid all animal products, include products fortified with vitamin B12 such as soy beverages and meat substitutes (veggie dogs, veggie burgers).

Antioxidants: Vitamins A, C and E

Antioxidants help protect your body's cells from damage and a well-balanced eating plan will provide all you need. Taking high doses of vitamin A and E and beta-carotene supplements can cause cell damage instead of preventing it.

Choose food first:

- **Vitamin A** and **beta-carotene** are found in brightly coloured vegetables and fruit like carrots, apricots, pumpkin and sweet potatoes.
- **Vitamin E** is found in vegetable oils, wheat germ, nuts and seeds.
- **Vitamin C** is found in many vegetables and fruit such as citrus, strawberries, bell peppers, tomatoes

A registered sports dietitian can help you

optimize your eating plan for your sport and training demands. To find a dietitian:

- click on www.dietitians.ca/find or www.coach.ca to find a sports dietitian in your area
- ask your doctor for a referral
- call Dietitians of Canada Consulting Dietitians Network at 1-888-901-7776.

and broccoli. Intense training may increase your needs so choose vitamin C rich foods often. Be careful with supplements though, because doses as high as 2000 mg can cause diarrhea.

Calcium and Vitamin D

Calcium and vitamin D are important for healthy bones, muscles and nerves. Dairy products or fortified soy beverages, canned salmon, sardines and some fortified orange juices provide both calcium and vitamin D.

Vitamin D is also made when the sun hits bare skin. In the late fall or winter in Canada, we can't make enough vitamin D from the sun. If you train indoors most of the time you may be at risk for low vitamin D. Experts recommend that 'at risk' athletes aged 19-50 years take a supplement with 200 IU of vitamin D daily.

Sometimes vitamin and mineral supplements are recommended for reasons not related to sports.

To see if this applies to you check out the fact sheet "Do I need a vitamin or mineral supplement?" from Dietitians of Canada.

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