What are the nutritional requirements of young athletes?
According to Canada's Food Guide to Healthy Eating every child needs a balanced diet with food chosen from the four main food groups — grain products, vegetables and fruit, milk products, and meat and alternatives. Healthy eating habits include a diet that is high in carbohydrates (55-60 per cent) and low in fat (no more than 30 per cent) and protein (12-15 per cent).

Marilyn Booth, sports nutrition program director with the Sport Medicine and Science Council of Canada, says that young athletes should eat a meal at least three hours before a game or practice so the stomach is not full by playing time. For pre-game nutrition, she advises parents and coaches to offer mainly carbohydrates such as cereals, breads, rice, pasta, potatoes, fruit, and vegetables, which are easy to digest and convert to energy.

The pre-game meal should also contain some protein and be low in fat because these foods are slower to digest. Protein-rich foods include meat, fish, poultry, eggs, dried beans, milk, yogurt, peanut butter, lower-fat cheese, and nuts. Fatty foods such as fried foods, bacon, sausages, fast-food burgers, sour cream, and salad dressings should be avoided.

Children should be encouraged to eat three healthy meals a day, regardless of their participation in sport. However, after activity, children need to replace fluids and their energy stores with juice and a snack. Fruit juice, bagels, and yogurt are examples of easy-to-carry snack foods to aid recovery after an activity.

According to the National Institute of Nutrition, the demands of growing combined with the physical stress of training and competition mean some young athletes may be undernourished. Depending on the type and intensity of exercise, they need more calories, more water, more protein, and more iron than inactive children. Iron deficiency can be a problem for athletes, particularly for girls who have begun to menstruate.

Food supplements, however, are unnecessary. If children are eating a good variety of foods from the four food groups, they are getting all the vitamins and minerals they need. Making a variety of healthy food choices available to children three times a day will instill good eating habits for life.

Growing children also need some fat in their diet as a concentrated energy source to keep up with growth spurts. During fast-growth periods, children should be able to eat as much as they want when they are hungry. If children learn to balance an active lifestyle with energy from a variety of foods, their long-term health will benefit.