



Game Day Nutrition

Sport performance and healthy eating habits are linked in much the same way that a race car and the high octane gasoline that fuels the car are linked. To achieve optimal performance both the race car and the athlete require high quality fuel. Placing a substandard fuel in either the race car or the athlete's body will have the same result - a sub-standard performance. And in fact, bad fuel or lack of fuel will cause both the car and the athlete to break down or shut down. Furthermore, the longer the race, match or event lasts the importance of a quality source of fuel becomes even further magnified. Thus, during volleyball competitions that involve multiple matches per day and/or multiple day events, the coach and athlete must do the utmost to ensure quality nutritional practices are followed. At best, Game Day Nutrition should be an extension of an athlete's normal, high quality daily nutritional plan. The Canada Food Guide remains an athlete's and coach's best tool for ensuring that quality nutritional habits become the norm.

What then, is the best fuel to feed the high performance athlete and how do we ensure that the fuel that the athlete requires for high performance utilized and optimized in the best possible way?

In short, the major nutrients required by the high performance volleyball athlete each day, are:

- 5 to 15 servings of breads and cereals
- 5 to 15 servings of fruits and vegetables
- 2 to 6 servings of milk and milk products
- 2 to 4 servings of meat, fish and alternatives (Canada Food Guide)

While energy demands vary based on factors such as; age, sex, body size, and the intensity and duration of the activity, the major source of this energy comes from carbohydrates. Breads, cereals, fruits and vegetables are the best source of carbohydrates for the athlete. Thus, game day nutrition must satisfy the body's needs for carbohydrates (fuel).

It should also be noted that while protein is an important muscle building and rebuilding nutrient, volleyball players have normal protein needs – typically about 1 gram of protein per kilogram of body weight. And as it relates to game day nutrition, protein is not a major source of energy as the athlete competes throughout the day.

Specific Game Day Strategies

- Snacks - Snack throughout the day. The athlete should take a healthy "Snack Pack" with them to the competition site. Choose high carbohydrate snacks, and keep the snack servings small between matches.
- Post-Match - Within fifteen (15) minutes post-match, have high a carbohydrate drink, e.g. juice, special drinks, even clear soft drinks if that is the only drink available.
- Low-Fat - Avoid high fat foods such as fried foods, butter/cream sauces, mayonnaise and mayonnaise type salads, donuts, pastries, pies, cakes, whole milk and others.
- Hydration - The athlete should drink plenty of fluids. Dehydration is a major obstacle to optimal performance, as it inhibits muscular contraction and recovery.
- Problem Foods - Spicy foods, fibre rich foods, gas producing foods, foods containing caffeine, and alcohol should all be avoided.
- Waiting Periods - When the athlete has a 3 - 4 hour waiting period prior to their next match, a calorie total of 500 - 800 calories (primarily carbohydrates) is recommended. When the athlete has a 2 - 3 hour waiting period prior to their next match, a calorie total of 250 - 500 calories (primarily carbohydrates) is recommended. When the athlete has a waiting period of 1 - 2 hours, a calorie total of less than 250 calories (primarily carbohydrates) is recommended. A meal that is rich in fat or protein will require a longer waiting period.

For further information, the coach and their athletes can acquire additional nutritional information with specific emphasis on nutritional requirements for high performance athletes, from the Sport Medicine and Science Council of Canada, and with SNAC (Sport Nutrition Advisory Committee).

Sample Meal Plan for 2 ½ Day Round-Robin Competition

Day 1 (Matches at 10:00 am, 2:00 pm and 5:00 pm)	
Breakfast (7:15 am)	Cereal with Skim Milk, Orange Juice, Toast with Jam or Honey, Fruit Yogurt
Snack (8:45 am)	Juice and/or Cookies
MATCH (10:00)	Post-Match Drink
Snack (12 Noon)	Vegetable Juice, Chicken Sandwich (no mayo or butter/margarine), Fruit Salad, Cookies/Muffin
MATCH (2:00 PM)	Post-Match Drink
Snack (3:30 pm)	Muffins/Cookies, Juice or Clear Soft Drink, Add Yogurt Drink or Low Fat Cheese if Hungry
MATCH (5:00)	Post-Match Drink
Dinner (8:00 pm)	Chicken Stir-Fry, 500 mL Rice, Fruit Salad, Cake, Choice of Drink
Snack (prior to bed)	If hungry, have a high carbohydrate snack.

Day 2 (Matches at 9:00 am, 1:00 pm and 7:00 pm)	
Breakfast (6:30 am)	Toast with Jam/Jelly/Honey, Juice, Low Fat Milk, Fruit Salad
MATCH (9:00 am)	Post-Match Drink
Snack (11:00 am)	Low-fat Cheese, Soda Crackers, Juice, Granola Bar/Muffins, Orange/Grapefruit Sections
MATCH (1:00 pm)	Post-Match Drink
Lunch (3:00 pm)	McDonald's (McDLT - no mayonnaise), Orange Juice or Soft Drink, Salad (low cal dressing), Cookies, Low-Fat Milk
Snack (5:00 pm)	If hungry, choose a high carbohydrate snack.
MATCH (7:00 pm)	
Dinner (9:00 pm)	Vegetarian Pizza, Juice, Milk, Soft Drink, Fruit Salad

Day 3 (Match at 1:00 pm)	
Breakfast (8:00 am)	Eggnog/Juice, French Toast (no butter), Syrup, Low-Fat Cheese or Lean Ham, Milk/Juice
Snack (11:00 am)	Juice, Sandwich (no butter/mayo), or Muffins, or Low-Fat Cheese, or Boiled Eggs, Milk
MATCH (1:00 pm)	
Post-Match	Rehydrate, and eat as you wish.

Carbohydrate Content of Various Foods

0 to 5 Grams per	6 to 10 grams per	11 to 20 Grams per	21 to 30 Grams per Portion
Cheese	Soda Crackers (4)	Milk	Yogurt Drink
Tofu	Wheat Bran	Plain Yogurt	Milkshake
Meat, Fish, Poultry	Popcorn, Potato Chips	Seeds, Nuts	Soya Milk
Butter, Margarine, etc.	Bran Muffin	Cooked Flours and Grains	Cream Soup
Eggplant	Grapes	Bread	Instant Breakfast
Broccoli, Cauliflower	Grapefruit	Pasta	Whole Grain Cereal
Asparagus	Peach	Refined Cereal	Melba Toast
Lettuce	Avocado	Berries, Cherries	Cantaloupe
Celery	Spinach	Sweet Biscuits	Pastries - sweet buns, croissants
Green Pepper	Carrot	Honeydew Melon	Apple, Pear
Olives	Meatloaf	Kiwi	Banana
Diet Soft Drinks	Wine	Orange	Dried Fruit
Condiments		Plum	Regular Soft Drink
Coffee, Tea		Raisins	
		Fruit Juice, Fruit Drinks	
31 to 50 Grams per	51+ Grams per Portion	Canned Fruit	
Fruit Yogurt	Chocolate Milk	Green Peas, Corn	
Milk Pudding	Rice Pudding with Raisins	Sugar, Syrup, Jam	
Legumes		Bread Sticks	
Cake			
Potato			