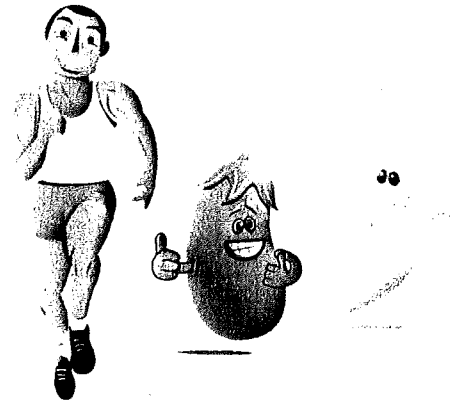


Step Right Up to Healthy Eating

Training Diets for Athletes

Whether you are a professional or amateur athlete, competing on a team, or aiming for your personal best at your next marathon, what you eat and drink day to day will affect how well you can train.



If you don't eat well you may:

- lack the energy to train hard and long enough
- break down your body's lean tissue (muscle) for energy
- lose bone strength
- get sick or injured

Eating Well with Canada's Food Guide

Start with Canada's Food Guide as the foundation of your training diet (www.myfoodguide.ca). Because athletes burn a lot of energy, you may need to eat more servings than the food guide recommends.

The Energy Superstars!

Carbohydrate

Why do we need it? All athletes, from distance runners to body builders, need carbohydrate. It provides quick energy for your muscles and brain.

How much? Anywhere from 6 to 10 grams of carbohydrate per kg of your body weight per day (g/kg/day) during training and competition is needed.

- For a 165 pound (lb) athlete, this is at least 450 grams/day.
- Divide 165 pounds by 2.2 lb/kg = 75 kg
- Multiply 75 kg by 6 grams and you get 450 grams.

Protein

Why do we need it? Protein is needed by all athletes to help the body build and repair muscles and other tissues.

How much?

- Endurance athletes need about 1.2 to 1.4 grams of protein per kg of body weight per day (g/kg/day).
- Strength and power athletes need about 1.2 to 1.7 g/kg/day.
- For a 165 pound (75 kg) athlete, this is at least 90 grams/day.

Fat

Why do we need it? Fat is essential in the diet for both health and performance. It provides much needed energy and helps your body absorb fat-soluble vitamins.

How much? Athletes need 20-35% of their calories from fat. Neither very high fat nor very low fat diets are recommended for athletes.

Training Diets for Athletes

Eating before and after exercise

Eat 1-4 hours *before* exercise for extra energy, fluid and to prevent hunger.

- Choose foods rich in carbohydrate with some protein and a little fat like a bagel with peanut butter or a small plate of pasta with cheese. Sip water!
- The longer the time between the meal and exercise, the more you can eat.
- On competition day, never try a new food or drink that you haven't tried first in training.

Carbohydrate and protein will help your muscles recover *after* exercise.

- If meal time is a few hours away, grab a snack like a big glass of chocolate milk with a banana.
- If you are training or competing again in less than 24 hours, try to eat within 30 minutes or so after exercise.

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.



Pulling it all together

Meet Patrick. He is a 75-kg varsity soccer athlete. Check out his 1-day food diary to see how easy it is to meet these needs for carbohydrate, protein and fat.

- **Breakfast:** Boiled egg, whole grain toast with peanut butter and jam, a mango, glass of milk
- **During mid-morning practice:** 1L sports drink
- **Recovery snack:** Banana, whole grain pita with hummus, glass of cranberry juice
- **Lunch:** Large turkey submarine sandwich topped with veggies and oil and vinegar dressing, orange juice
- **During resistance and core training:** Water
- **Recovery snack:** Fruit smoothie (milk, yogurt, strawberries, blueberries, wheat germ, honey)
- **Dinner:** Garden salad topped with walnuts, shredded cheese and olive oil vinaigrette. Grilled salmon, rice, juice spritzer.
- **Evening snack:** Bowl of cereal with fortified soy beverage, topped with berries

(Patrick also sipped water throughout the day)

TOTALS:

- 3588 calories
- 120 grams protein (or 1.6 g/kg/day)
- 525 grams carbohydrate (or 7 g/kg/day)
- 112 grams fat (28% of calories from fat)

This Factsheet distributed compliments of:

Meals and Snacks for the Amazing Athletes!

With multiple workouts in a day and often occurring over regular mealtimes you need to think of having many mini meals and snacks throughout the day, 6-7. During meals you need to get at least 3 of the 4 food groups in and in snacks you need to get at least 2 of the food groups in. You also want to try to get a bit of protein at almost all of your meals and snacks throughout the day.

A day with one workout:

Breakfast

Snack

Lunch

Snack

Dinner

Snack

On a day with a before school workout – split your breakfast to a bit before and after that workout eg. Before have toast and milk or a bowl of cereal then after have fruit and a yogurt cup.

On a day with both a before school and evening workout you need to add an extra snack so you are basically having 4 snacks between lunch and bedtime as a regular dinner will not fit. For one of the afternoon snacks a granola bar is fine (try Cliff Bars). The others snacks should include the ideas below. Get your veggies in at lunch, dinner and/or later night snack.

Snack examples:

Basically you are mixing a carbohydrate (fruit or grain product) with a protein (dairy or meat alternative). Most of these snacks will also provide healthy fats. Put any combinations together:

Fruit or grain:

whole wheat crackers

nann bread/pitas/wraps

bagels

protein:

cheese

cream cheese

PN butter

bread

apples

bananas

grapes, peacjes etc.

berries , juice

dried fruits

cereal or porridge

cucs, carrots, peppers

½ cup noodles

Sm. Pc. Pizza

Grilled cheese sandwich

½ meat and veggie sandwich

Whole grain Muffins

Loaded trail mix type cookies

Fruit, yogurt, juice, milk and protein powder shakes are a great thing to have on multiple work out days, either early am or as one of the dinner snacks before a workout. Also make up trail mixes (1/3- ½ cup) for snacks including big whole grain cereals, nuts and seeds, dried fruits and even some chocolate chips and yogurt covered raisins. Think of regular Canada food guide serving sizes for any of the snack items mentioned above eg. 1 pc bread, or 4 stoned wheat sized crackers, 2 tblsp of any of the protein spreads and powders, ½ cup juice, 1 cup milk, ½ cup yogurt, ½- 1 cup of fruit or veg., ¾ - 1 cup cereal.

Hopefully this gives you some ideas. Let me know if you have any more questions.

Sincerely

Dr. Sally Stewart, PhD

Nutrition Consultant, Certified Exercise Physiologist

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hummus

nutella

cheese sticks

yogurt (tubs or tubes)(1-3% MF)

protein powder (make shakes)

nuts and seeds

milk/chocolate milk (1-2% MF)

small meat pieces (1/4-1/2 cup)

parmesan cheese

Trail Mix

blend together a mixture of ingredients from all categories; more variety gives more nutrients; choose your favorites and skip the "don't likes"

cereals:

- flakes (eg. bran, oat bran, kamut, multigrain)
- O's (eg. plain or multigrain cheerios, Heritage O's, any oat o's)
- puffs (eg. ice puffs or kamut puffs)
- rice crispies
- granola
- high fibre cereal (eg. PC Fibre First)
- squares (eg. Corn Bran, Oat Squares, Shreddies, Wheat Squares, Life)

seeds:

- sunflower, pumpkin, flax, sesame, hemp

dried fruits:

eg. apples, apricots, cranberries, papaya, pineapple, dates, prunes, blueberries, figs etc. (ones with no sulphites are best)

nuts:

- almonds, soy, cashews, pistachios, peanuts, walnuts

add a little treat:

- real chocolate chips or carob
- yogurt covered raisins
- organic gummy bears

mix up into a big container then you can scoop out a small bag full to throw in your sport bag

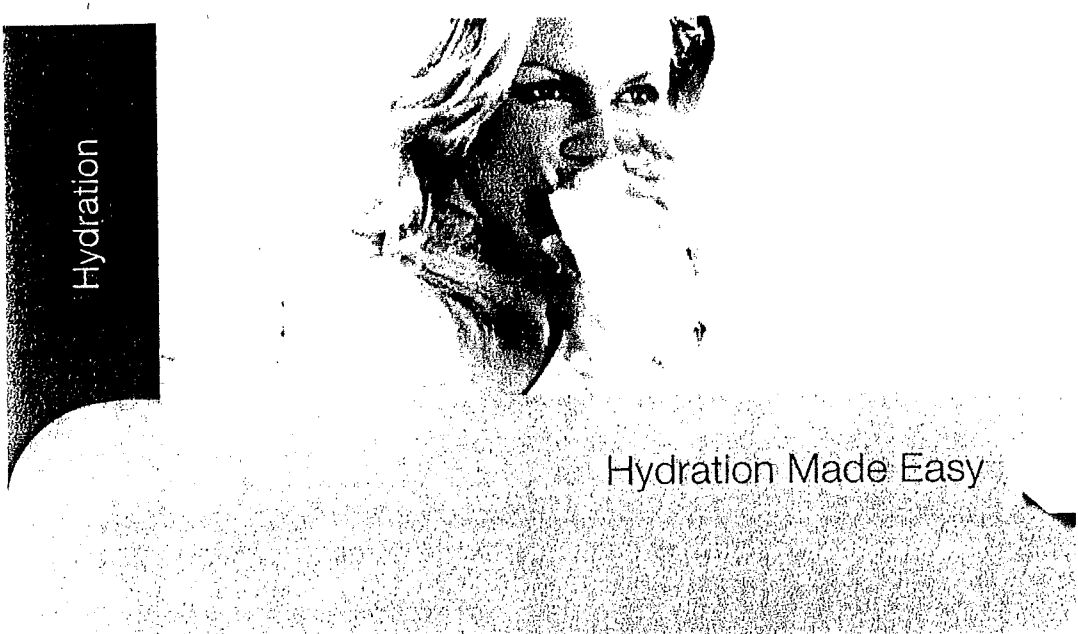
Power Cookies

Ingredients:

- 1.5 cups flour (mixture of white, whole wheat, spelt, kamut etc.)
- 0.5 cups brown sugar
- 0.75 cups oats
- 0.5 cups high fiber cereal
- 0.5 cups puffed cereal (kamut, rice)
- 2 tblsp. each of pumpkin, flax, sesame and sunflower seeds
- 0.75 cups dried fruit (mixture of raisins, apricots, dates, cranberries, pineapple etc.)
- 2 tblsp. protein powder (eg. soy, whey, skim milk powder)
- 0.5 cups chocolate chips
- 1 tsp. baking soda
- 1 tsp. cinnamon
- grated rind of 1 orange
- 0.5 cups non hydrogenated margarine
- 1 egg
- 2 tblsp. plain yogurt
- 3 tblsp. Honey or maple syrup

Directions:

- in a large bowl stir together the first 12 ingredients listed on left
- cut in the margarine til well blended
- stir in the remaining ingredients and stir til well blended and moist
- dough should be the consistency to roll or drop into small balls; place on a non stick cookie sheet
- bake at 350 F degrees for 10 minutes
- remove from sheet onto cooling rack immediately
- enjoy and share them with a friend!



Hydration Made Easy

Proper hydration before, during and after exercise:

- Replaces fluids lost in sweat and **prevents dehydration**
- Facilitates blood circulation and the transporting of oxygen and energy to the muscles
- Helps dissipate heat generated to maintain body temperature, avoiding overheating
- Provides carbohydrates to muscles during effort (when the drink contains carbohydrates)

Did you know that dehydration can have a big impact on performance?

It is important to take in enough liquid every day. Here are two ways to tell you if you are getting enough to drink:

- Your weight is the same before and after a workout
- Your urine is clear and abundant

What to drink?

Weather	Time	Fluid	Other
Cool or cold	- 1 hour	Water	
	+ 1 hour	Water	Carbohydrates
Hot and humid	- 1 hour	Water*	
	+ 1 hour	Water	Carbohydrates + pinch of salt

* Unless fasting for more than 4 hours, in which case: **water + carbohydrates + a pinch of salt.**

The carbohydrates suggested in the drinks are found in the natural sugar in fruit and 100% pure fruit juice, as well as in the sugar added to sweeten fruit drinks.

Best beverages: flavoured milk

It is important to help your body recover during the half hour period right after exercise. The best choice is a drink that contains enough carbohydrates to replace those the muscles used up. A good recovery drink should also provide at least 5 g of protein. After a workout, protein plays a key role in helping repair muscles. You also need to replenish the minerals lost in sweat. Flavoured milk—chocolate, strawberry, vanilla, etc—contains all of the above.

Drink when, what, and how much?

The normal liquid needs of adults range from 2 to 3 litres a day. Some factors can increase that, such as temperature, humidity, heavy sweating and the intensity and duration of the activity. All of the liquids taken in during your day count, not just water. To handle your water needs, look for nutritious beverages and water-rich foods such as milk, chocolate milk, fruit and vegetable juices, fresh fruit and vegetables, drinkable yogurt, etc. Consume as much as you feel you need.

What to drink?

Before	2 hours before	500 ml (2 cups) liquid
	10 to 15 minutes before	125 to 250 ml (½ to 1 cup) liquid
During	Every 15 minutes	125 to 250 ml (½ to 1 cup) liquid
After	After the workout	Drink lots of fluids—1.5 litre (6 cups) of liquid per kg (2 lb) of weight lost

Your own sports drink

Below are two great suggestions for physical activities that last more than an hour, or if you haven't had time to eat before working out. Omit the salt for shorter workouts. During hot, humid weather, the drink can be diluted (apple or orange juice). During cool or cold weather, the drink can be more concentrated (grape, pineapple or cranberry juice). Recipe 1 is excellent for hot weather, while recipe 2 is ideal for cool weather.

Homemade drink

- 500 ml (2 cups) water
• 500 ml (2 cups) apple juice or orange juice
• 2.5 ml (½ tsp) salt
- 500 ml (2 cups) water
• 500 ml (2 cups) grape, pineapple or cranberry juice
• 2.5 ml (½ tsp) salt

Take note

During physical activity, the mechanisms that allow us to feel thirst change. This means that we can't count on thirst to tell us when to drink. So drink, and then drink some more! Remember: loss of hydration totalling 2% of your body weight may mean a 10% decline in performance.



www.alpnutrition.com

www.dairygoodness.ca



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