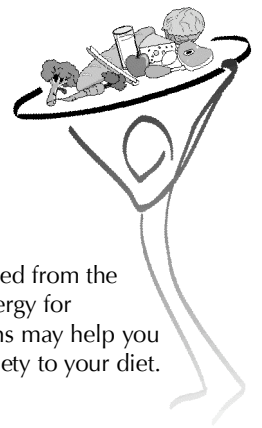


From Training Diet to Meal Plans



The amount of food in your everyday meal plan varies according to your energy needs. The more you train, the more food you need for energy. By including food from all four food groups in your meals and snacks, you will consume the nutrients you need for top performance.

From the **Training Diet – Everyday Eating: Action Plans** chart, choose the Action Plan that matches your sport. Notice the number of servings suggested from each food group. Because athletes use carbohydrate as fuel, you will see that the number of servings from the carbohydrate-rich grain products and vegetable and fruit food groups increase more quickly than the number of servings from the protein-rich milk products and meat and alternative food groups.

Divide the number of servings from each food group into three meals and several snacks. For example, if Action Plan #2 is closest to your needs and suggests 8 to 14 servings of grain products, you might try the lowest number of servings (8). That would allow 2 servings of grain product at each meal and 2 servings for your snacks. If you are always hungry, you might try 14 servings of grain throughout the day, with 3 servings at each meal and 5 grain servings divided into 2-3 snacks.

A balanced **meal** has several servings from the carbohydrate-rich grain products and from the vegetables and fruit food groups. Fewer servings are needed from higher protein foods – about one serving from the milk products group and about one from the meat and alternatives group. Most meals include some oil or fat, either as part of the food (peanut butter, nuts/seeds, cheese) or added to one or more foods (margarine/butter, salad dressing). Many meals include fluid in the form of juice, milk, or water.

Your planning formula for each everyday meal:

- 2-6 servings of grain products
- 2-6 servings of vegetables and fruit
- ½-1 servings of milk products
- ½-1 servings of meat and alternatives
- oil or fat
- fluid

If you can't eat all of your food in a meal, try to save your drinks towards the end of your meal – this way you won't fill up on liquids first! Athletes who need a very large amount of energy may need to drink most of their fluid between meals rather than as part of their meal.

As an athlete, you need frequent meals and snacks throughout the day to top up your energy supply and keep your energy level steady. You can increase the total energy in your menu by increasing the number of servings of a food or by adding another food from the same or another food group. You can add variety and interest by choosing different foods within each food group throughout the week.

Here is a sample menu that can be expanded from the energy needed in Action Plan #1 to the energy for Action Plan #3. The food group designations may help you substitute different food choices to add variety to your diet.

BREAKFAST:	FOOD GROUP
Orange juice	Vegetables and fruit
Whole wheat pancake with blueberries	Grain products
Scrambled egg	Vegetables and fruit
Milk	Meat and alternatives
Maple syrup	Milk products
	Other foods

SNACK	FOOD GROUP
Low-fat muffin	Grain products
Apple and/or banana	Vegetables and fruit

LUNCH:	FOOD GROUP
Pita bread stuffed with tuna salad	Grain products
Raw vegetable cup – carrots, cauliflower, zucchini	Meat and alternatives
Milk/fruit smoothie	Vegetables and fruit
	Milk products
	Vegetables and fruit

SNACK	FOOD GROUP
Multigrain date bread	Grain products
Milk	Milk products

SUPPER:	FOOD GROUP
Beef and Broccoli stir-fry	Meat and alternatives
Brown rice with mushrooms and celery	Vegetables and fruit
Peaches with yogurt topping	Grain products
	Vegetables and fruit
	Vegetables and fruit
	Milk products

SNACK	FOOD GROUP
Oatmeal cookie	Grain products
Milk-based hot chocolate	Milk products

SNAC Sport Nutrition Advisory Committee
Comité consultatif sur la nutrition sportive



From Training Diet to Meal Plans, page 2

Check the following chart to understand how much of each food you would need, depending on whether you use Action Plan 1, 2, or 3.

The chart below uses the following abbreviations:

GP = Grain products **VF** = Vegetables and fruit **MP** = Milk products **MA** = Meat and alternatives **OF** = Other foods **Servings** = Number of food group servings

ACTION PLANS TO MEAL PLANS

Food	Action Plan #1		Action Plan #2		Action Plan #3	
	Amount	Servings	Amount	Servings	Amount	Servings
Breakfast:						
10 cm whole wheat pancake	1 pancake	1 GP	3 pancakes	3 GP	6 pancakes	6 GP
Orange juice	125 mL	1 VF	125 mL	1 VF	250 mL	2 VF
Blueberries	125 mL	1 VF	125 mL	1 VF	250 mL	2 VF
Milk	125 mL	½ MP	250 mL	1 MP	250 mL	1 MP
Scrambled egg with milk	1 egg 60 mL	½ MA ¼ MP	2 eggs 100 mL	1 MA ½ MP	3 eggs 150 mL	1½ MA ½ MP
Maple syrup on pancakes	15 mL	1 OF	30 mL	2 OF	60 mL	4 OF
Margarine/butter			15 mL	1 OF	30 mL	2 OF
Snack						
Low-fat muffin (small)					1 muffin	2 GP
Apple/banana	1 fruit	1 VF	2 fruit	2 VF	2 fruit	2 VF
Lunch						
Pita bread	1 pita	2 GP	1.5 pita	3 GP	2 pita	4 GP
Raw vegetable cup	125 mL	1 VF	250 mL	2 VF	500 mL	4 VF
Milk	125 mL	½ MP	250 mL	1 MP	250 mL	1 MP
Tuna salad	50 mL	½ MA	100 mL	1 MA	100 mL	1 MA
Mayonnaise in tuna salad	10 mL	1 OF	15 mL	1 OF	15 mL	1 OF
Salad dressing veggie dip					30 mL	2 OF
Snack						
Multigrain date bread	1 slice	1 GP	2 slices	2 GP	3 slices	3 GP
Milk (#3 for fruit smoothie)	250 mL	1 MP	250 mL	1 MP	250 mL	1 MP
Fruit for smoothie					250 mL	2 VF
Supper:						
Bread roll					1 roll	2 GP
Cooked brown rice	125 mL	1 GP	250 mL	2 GP	375 mL	3 GP
Mushrooms and celery	60 mL	½ VF	125 mL	1 VF	125 mL	1 VF
Broccoli for stir-fry	125 mL	1 VF	250 mL	2 VF	250 mL	2 VF
Vegetable juice					250 mL	2 VF
Beef for stir-fry	100 g	1 MA	100 g	1 MA	100 g	1 MA
Peaches	125 mL	1 VF	250 mL	2 VF	250 mL	2 VF
Yogurt topping	100 mL	½ MP	100 mL	½ MP	175 mL	1 MP
Oil for stir-fry	10 mL	1 OF	15 mL	1 OF	15 mL	1 OF
Margarine/butter					10 mL	1 OF
Snack						
Oatmeal cookie	15 g	½ GP	30 g	1 GP	60 g	2 GP
Milk-based hot chocolate	125 mL	½ MP	125 mL	½ MP	250 mL	1 MP

Food Group	Action Plan #1	Action Plan #2	Action Plan #3
Grain Products	5½ servings	11 servings	22 servings
Vegetables and Fruit	6½ servings	11 servings	19 servings
Milk Products	3¼ servings	4½ servings	5½ servings
Meat and Alternatives	2 servings	3 servings	3½ servings
Other Foods	3	5	11



From Training Diet to Meal Plans, page 3

OTHER FOODS

The other foods category of Canada's Food Guide to Healthy Eating includes the foods that are not part of the four food groups. These foods add variety and taste to your diet. Fat, sugar, and many beverages are categorized as other foods.

There are no defined serving sizes for other foods. As a guideline, 5-15 mL of fat and/or sugar is suggested in the menu as a possible portion.

Fat: All diets require some fat. If you are an athlete who needs a great deal of energy, you may need some concentrated energy sources higher in dietary fat to help you to "fill up". Check [Training Diet – Everyday Eating: Fat – Get the Essentials](#) for more detail about fat.

Sugar: Sugar adds carbohydrate to help maintain energy. Sugar does not provide other nutrients like vitamins and minerals so cereals, breads, vegetables, and fruit are better quality sources of carbohydrate than sugars.

Alcohol: Like sugar, alcohol provides energy with few other nutrients. As well, alcohol interferes with your recovery from exercise, slowing the replacement of protein and carbohydrate in your body.

Remember, your everyday eating is important for optimal performance. The more energy you need to participate in your sport, the more carbohydrate-rich foods you need to include in your menu plans.

Timing: Planning Meals and Snacks Relative to Workouts

As an athlete, you need balanced meals and snacks throughout the day to supply energy and nutrients. Before, during, and after your workouts, some nutrients may need more emphasis than others. By the end of the day, all the food group servings and nutrients should have been consumed.

BEFORE a workout	Focus on fluid and carbohydrate
DURING a workout lasting less than an hour	Focus on fluid
DURING workouts longer than 60 minutes	Focus on fluid and carbohydrate
Immediately AFTER a workout	Focus on fluid, carbohydrate, and protein

BEFORE

Whether your workout is a training session or a competitive event, the pre-exercise meal is part of your balanced [Action Plan](#). Fluid is emphasized to ensure you are well hydrated before beginning your activity. Also, your pre-exercise meal may be higher in carbohydrate than everyday meals.

Generally allow:

- 3-4 hours for a large meal to digest
- 2-3 hours for a smaller meal
- 1-2 hours for a small snack or blender/liquid meal or, whatever your own tolerance indicates

Your fluid intake before exercise tops up your fluid level and helps prevent dehydration. Foods rich in carbohydrate are important fuel for your brain and nervous system, allowing you to focus on your skills as well as to perform physical feats. Your pre-exercise meal

prevents hunger and provides energy before and during your training or competition. For comfort, choose foods that are quickly and easily digested, especially before a competition. In some cases, liquid meals may be needed if there is little time before your event or if you tend to have a nervous stomach.

If you have a "nervous stomach" before events, choose lower-fibre grain products, juice, or pureed foods (toast or crackers, applesauce or apple juice, soup, yogurt, fruit smoothie, etc.).

CAUTION: Spicy, gas producing, fatty and/or fibre-rich foods may cause discomfort. Products containing caffeine may also be problematic.

Legumes (e.g. baked beans) are fibre-rich and can be gas-producing. **Unless you eat legumes regularly, they may have too much fibre for comfort.**

For some pre-exercise food suggestions, check the [Fluids and Foods BEFORE Training/Competition](#) tip sheet.

DURING

During most exercise sessions lasting up to one hour, your main concern is replacing fluid lost from sweating and breathing hard. Hot and/or humid weather can cause you to lose more than one litre per hour of sweat. During cold weather, there is little water vapour in the air and a substantial amount of fluid can be lost from breathing. Even athletes who train and compete in the water (e.g. swimmers) lose fluid from sweating.

Training or competitions lasting longer than an hour may cause you to use up all your carbohydrate (glycogen) energy stores. Consuming carbohydrate in a drink (e.g. sport drink) will help maintain your energy and focus.

For suggestions during exercise, check the [Fluids and Foods DURING Training/Competition](#) tip sheet.

AFTER

After an exercise bout, to replace your lost fluids, you need to drink 1.5 litres of fluid for every kilogram of body weight you lost. Sodium in your beverage helps restore your electrolyte losses and keep the fluid in your body.

Research has shown that carbohydrate consumed in the minutes after exercise moves readily through the blood stream and into muscles to replace the glycogen (muscle energy) that was used during exercise. Restoring glycogen helps to prepare you for your next exercise session. Similarly, amino acids from dietary protein (broken down in the digestive tract) are transported by the blood stream to muscles and move into the muscles to repair damaged tissue. Only a small amount of protein is needed.

To maximize recovery, check the suggestions included in the [Fluids and Foods AFTER Training/Competition](#) tip sheet.

During multi-event days like tournaments, the meal or snack after one game or event may be the pre-event meal/snack for the next competitive session. The amount and type of food will vary based on the length of time you have between the meal/snack and the next competition or training session. If the recovery fluid and food intake after one exercise session is your pre-exercise nutrition for the next activity, think "fluid" and "carbohydrate". Be sure you have time for digestion. Meals may need to be kept small if time between events is limited. You may find that "sipping" and "nibbling" work well for your sport. For more hints regarding food on multi-event days check the [Tournament Tips](#) tip sheet.



From Training Diet to Meal Plans, page 4

BALANCING THE NUTRIENTS

Protein-rich foods are digested more slowly than carbohydrates, delaying hunger during a long event but causing an upset stomach during an intense event. Low-fat milk, yogurt, lean meat, skinless chicken, non-breaded fish, eggs, and/or legumes (beans, peas, and lentils) are protein-rich foods that help delay hunger. If your only protein choice is a higher fat food (peanut butter, nuts/seeds, cheese), use only a small amount with your carbohydrate choice (bread, crackers, fruit, etc.).

Fat is digested very slowly. Before most training and competition situations, low fat food is best. French fries, chips, breaded chicken or fish, hot dogs, greasy hamburgers, cream or cheese sauces, margarine/butter, salad dressing, cheese, peanut butter, nuts, seeds, and chocolate contain a substantial amount of dietary fat.

Although you may have fewer servings of protein-rich foods and less fat/oil in meals just before an exercise session, meals after exercise or during the day (or week) should make up for this temporary imbalance by adding a little extra.

SPLITTING MEALS/SNACKS AROUND TRAINING OR COMPETITION

If your training or competition is near a mealtime, your meal can be divided into two smaller meals/snacks with some food consumed before the exercise session and the remaining part of the meal eaten after the training or competitive session. Look for foods to carry with you or food outlets where you can buy part or all of a meal. Pack snack items to have on hand. Some snacks can be part of your next meal.

BEFORE a *breakfast* training session or competition:

Toast	Grain products
with jam	Other food
Fruit juice	Vegetables and fruit
Water	Fluid

AFTER a *breakfast* training session or competition:

Cereal	Grain products
Berries	Vegetables and fruit
Milk	Milk products
Toast	Grain products
with egg or peanut butter	Meat and alternatives

Food outlet option for *breakfast*

English muffin	Grain products
Fruit juice	Vegetables and fruit
Milk or Latté	Milk products
Egg	Meat and alternatives

BEFORE a *lunchtime* training session or competition:

For lunchtime competitions or training sessions, eat a hearty breakfast and top-up with a high carbohydrate snack a few hours before the event.

Small toasted bagel	Grain products
Fruit	Vegetables and fruit
Water	Fluid

AFTER a *lunchtime* training session or competition:

Bread for sandwich	Grain products
Salad or raw vegetables	Vegetables and fruit
Yogurt	Milk products
Lean meat or fish for sandwich	Meat and alternatives
Mustard	Other foods
Fresh or canned fruit	Vegetables and fruit

Food outlet option for *lunchtime*:

Whole grain bread roll	Grain products
Salad or raw vegetables	Vegetables and fruit
Milkshake	Milk products
Sliced meat or chili	Meat and alternatives

BEFORE a *dinnertime* training session or competition:

For dinnertime competitions or training sessions, eat a hearty lunch several hours before the event and top-up with a high carbohydrate snack a few hours before.

Small bowl of pasta	Grain products
Tomato sauce	Vegetables and fruit
with skinless chicken breast	Meat and alternatives
Water	Fluid

AFTER a *dinnertime* training session or competition:

Rye or multigrain bread	Grain products
Baked potato	Vegetables and fruit
Canned beans in tomato sauce	Meat and alternatives
Yogurt	Milk products
with fresh peaches	Vegetables and fruit

Food outlet option for *dinnertime*

Submarine sandwich	Grain products
Minestrone soup	Vegetables and fruit
Milk or chocolate milk	Milk products
Tuna filling in the sub	Meat and alternatives

Late night RECOVERY nutrition:

After an evening training session or competition, it is never too late to eat your recovery meal.

AFTER an *evening* training session or competition:

Cereal	Grain products
Fruit	Vegetables and fruit
Milk	Milk products

Food outlet option for *evening*

Bread for sandwich	Grain products
Juice	Vegetables and fruit
Lean meat in the sandwich	Meat and alternatives

FOOD SAFETY CONSIDERATIONS

To avoid getting sick, keep your foods at the right temperature. Foods that are to be eaten as hot (temperature) dishes, (e.g. meat, casseroles, rice) should not be served lukewarm. Foods that are to be eaten cold (e.g. deli meats, salads, sandwiches, milk, custard, etc.) should be served at a cold temperature.

Avoid bacterial contamination of meals and snacks. Keep cold foods cold and hot foods hot. Bacteria reproduce quickly at room temperature.

