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Thunder Bay District
Health Unit

### EAT LIKE A CHAMPION

Athletes need more energy to fuel their activity and perform their best.

CARBOHYDRATES are the main fuel used by the body and stored in the muscles. During exercise, this fuel gets used up and needs to be replaced through meals and snacks eaten between activity sessions.

Good sources of carbohydrates include whole grains (like rice, barley, pasta, bread, bagels, pitas, tortillas), fruits (like bananas, apples, pears, 100% juices) and vegetables (like potatoes, corn, carrots, sweet potatoes, squash).

PROTEIN is needed to repair and build muscle tissue. The best protein sources are from foods. It is important to follow the recommendations of Canada's Food Guide to make sure you're getting enough.

Good sources of protein include lean meats (like chicken and turkey), fish, legumes (like beans and lentils), milk products (like fluid milk, yogurt and cheese), nuts and seeds (and their butters) and eggs. FAT provides long-lasting energy because it is more calorie dense. It also delivers the fat-soluble vitamins your body needs. Right before an exercise session, choose lower-fat foods since it takes longer for your body to digest fat.

For a diet with a healthy fat intake, choose leaner cuts of meats, replace some red meats with fish or poultry, eat vegetarian meals with beans and legumes, look for lower-fat milk products, and emphasize vegetables, fruit and whole grains.



### **GENERAL HEALTHY EATING**

There is no single food that will help you feel stronger, train harder and compete better.

Every food you eat can affect your performance. Good nutrition is essential to supporting an athlete's growth, strength and stamina. Eating Well with Canada's Food Guide should be the basis around which healthy meals and snacks are planned. This means choosing a variety of foods from each of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives.

For a nutritionally balanced diet that supports top performance and optimal exercise recovery, follow this simple rule:

- For meals: Include all 4 food groups
- For snacks: Include at least 2 food groups



A healthy everyday meal plan for an athlete should include the following:

- Enough food energy (calories) for exercise and growth.
- Lots of carbohydrate choices, such as grains, legumes, fruits, vegetables, milk and yogurt.
- Enough protein for growth and to build and repair body tissues.
- Moderate to low-fat food choices.
- Enough fluid for the body's needs.
- Frequent meals and snacks to provide enough energy.
- A variety of nutrient-rich foods from all four food groups according to Eating Well with Canada's Food Guide.

# BEFORE EXERCISE - BEGIN WITH A FULL FUEL TANK!

# WHY IS IT IMPORTANT TO EAT AND DRINK BEFORE ACTIVITY?

- to avoid being hungry
- to fuel your muscles with water and energy
- to have the energy you need to perform your best
- to feel good
- to help you recover more quickly afterwards
- to help keep you hydrated

The best fuels are foods and drinks that are easily digested and familiar to your body. Right before a game or tournament is not the time to try something new; try it out before practice or a workout. Allow enough time for your food to digest before you get active.

RECOMMENDED MEAL PLAN BEFORE PHYSICAL ACTIVITY	
3 hours	Normal balanced meal of healthy foods providing carbohydrates, protein and a bit of fat.
2 hours	Meal providing mostly carbohydrates, with a little protein and fat.
1 hour	Light meal of mainly carbohydrates, with very little protein or fat, and not too much fibre.
<1 hour	Light carbohydrate snack, avoiding simple sugars like candy, chocolate or other sweets.

TRY THIS MONKEY
SMOOTHIE RECIPE, OR
MAKE YOUR OWN
TASTY CREATION!

1 cup chocolate milk

1 frozen banana

Place all ingredients in a blender, whip up, and enjoy!

### WHAT ABOUT BEFORE AN EARLY MORNING WORKOUT?

Exercising on an empty stomach is never a good idea. If you don't have time for a full breakfast with 3 out of the 4 food groups, or you can't stomach a lot of food first thing in the morning, try these suggestions:

- a glass of fruit juice
- yogurt
- small bowl of cereal with milk
- cottage cheese
- fruit cup
- small muffin
- fruit smoothie

Your body has an easier time digesting fluids so smoothies or fruit blends will provide you with some carbohydrates and energy without that full stomach feeling. If you can't eat at all, add some 100% fruit juice to your water for a bit of carbohydrates. Eating a breakfast meal after your workout will also help your body recover and fuel the rest of your day.

# DURING EXERCISE - GET WHAT YOU NEED!

Water, water, water! The most important thing to remember during your activity is to drink water, even if you're not thirsty or it's cold outside. Kids often have a poor sense of thirst and need to be reminded to drink during activity. For more information, see the Fluids and Hydration section.

Maintaining energy stores during long activities is also important. If activity lasts longer than an hour, some quick absorbing carbohydrates can help replenish energy stores. Try a sip of sports drink every 15 to 20 minutes, or eat a light carbohydrate snack with some water. Soda crackers, orange slices or watermelon chunks are practical snacks to fuel longer exercise.

There are many commercial products available on the market, such as gels and gummies, that provide fuel as carbohydrates throughout a long activity. These can be beneficial for events where it's difficult to stop and have a snack, such as a long running or biking race, or a triathlon. But, be sure to research these products so you know what you're consuming. Some may contain caffeine or herbal supplements that are not only unnecessary during activity, but can be harmful.

Whatever you choose for a fuel source during activity, try it out in practice first so you know how your body is going to respond.



### AFTER EXERCISE - TOP UP YOUR TANK!

What you eat and drink post-exercise can make a big difference in future performance.

If your body doesn't get everything it needs, you may not gain all the benefit from your workout. You need to replenish fluid and nutrients lost through sweat, carbohydrates to refuel exhausted muscles, and protein to repair damaged tissue. This process of replacing losses continues for up to 24 hours so a healthy overall diet is important.

# WITHIN 15 TO 30 MINUTES OF ACTIVITY:

#### Drink!

You lose a lot of fluids not just through sweat and but heavy breathing as well. All liquids count: water, milk, 100% juice, even smoothies or drinkable yogurt. Drink until you're no longer thirsty, then a bit more.

Chocolate milk is an excellent recovery drink. It has just the right amount of protein, carbohydrates, nutrients, and fluid your body needs after a tough game or practice.

Why within 30 minutes of activity? To find out, visit:

TBDHU.COM/EatLikeAChampion

#### Eat a Small Snack

Something with carbohydrates and a little protein is best. Foods with sodium (pretzels, cheese, cottage cheese, salted nuts) and potassium (bananas, milk, oranges) help replace electrolytes.

Check out 10 great recovery snacks, by visiting:
TBDHU.COM/EatLikeAChampion

# WITHIN 2 TO 3 HOURS OF ACTIVITY:

#### Eat a Nutritious Meal

To complete the recovery process, your body needs a healthy post-workout meal. This should be balanced with foods from each of the 4 food groups in Eating Well with Canada's Food Guide. Here are some sample meal ideas to get you started:

- lasagna, salad, bun with cheese, fruit juice
- lean steak, baked potato, steamed veggies, water, yogurt
- chicken, peppers, rice, milk
- tofu vegetable stir fry, brown rice, milk

### **TEAM SNACKS**

Many teams have a rotating schedule for families to bring snacks and drinks to share with everyone after the game. While this is a great idea, it can often end up being sweetened drinks and cookies or donuts most of the time out of convenience.

Before you pack snacks to share with the team, review this checklist:

- O Nutrition Try vegetables, fruit, whole grains, low-fat milk or cheese.
- O Fluids Offer water. It is the best thirst quencher!
- O Food Safety Prepare food on clean surfaces with clean hands and utensils. Pack food in air tight containers. Use ice packs and insulate to keep cold foods cold.
- O Food Allergies Check with team mates and avoid any foods they are allergic to.

# HALF-TIME TEAM SNACK

Most coaches prefer that players have just fruit and water, so they get charged up without being overly full. Some easy fruits to serve include orange slices, easy-peel clementines, grapes, cantaloupe, watermelon or honeydew melon chunks, blueberries and strawberries.

# AFTER THE GAME TEAM SNACK IDEAS

- Athletes will be thirsty so provide plenty of water.
- For morning games:
  Whole wheat mini bagels with cream cheese and jelly, mini-yogurt cups and whole grain graham crackers, granola bars and whole-grain muffins.
- For before lunch games:
   Cheese and whole grain crackers, half sandwiches on whole wheat bread and peanut butter on celery sticks.
- For afternoon games:
   Popcorn and baby carrots, oatmeal-raisin cookies, whole grain crackers and cheese and trail mix.

#### SNACKS IN VENDING MACHINES ARE OFTEN HIGH IN FAT AND SUGAR.

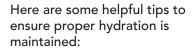
Here are some healthy team snacks that are easy to carry when you are on-the-go.

- Yogurt tubes (cold or frozen)
- Lower fat cheese strings (20% milk fat or less)
- Crackers and hummus
- Energy bars, breakfast bars or granola bars.
- Whole grain crackers and cheese

For more snack ideas, visit: TBDHU.COM/EatLikeAChampion

### **FLUIDS & HYDRATION**

Sweating is an effective way for your body to keep cool, but if you don't drink enough fluids, it can lead to dehydration. Water is also needed by the body to carry nutrients and oxygen to working muscles, remove toxins and waste products, regulate body temperature, maintain normal blood pressure and heart rate, and lubricate joints. So even a small amount of dehydration can zap energy and impair performance. It is essential that athletes drink before, during and after activity.



- About 2-3 hours before exercise, drink 1-2 cups of fluids.
- During activity, sip about ½ cup of fluid every 15-20 minutes.
- Post-workout, drink beyond thirst as exercise dulls the thirst mechanism.
- Avoid carbonated, caffeinated and highly sweetened beverages – they are hard to absorb which can lead to stomach upset, difficult to drink enough of, and can negatively impact performance.
- Don't forget to drink on cold weather days, during winter activities or when in an ice
- Add a splash of fruit juice, frozen juice ice cubes, or some lemon, lime, orange or grapefruit slices if you don't enjoy the taste of plain water.
- Enjoy fruits and vegetables that are high in water content like watermelon, oranges, grapes, celery, lettuce and cucumbers.



Plain water is best, especially for children and activities lasting less than an hour. When water is combined with a small snack, the effect is similar to that of a sports drink. For activities lasting longer than an hour or in extreme heat, carbohydrate stores can get used up.

If purchasing a sports drink, look for one without carbonation and 7-25g of carbohydrate per 250mL. This information can be found on the product's Nutrition Facts Panel and ingredient list. They do not need to contain amino acids, oxygen or other herbal ingredients.



# ENERGY DRINKS – NOT TO BE MIXED WITH SPORTS DRINKS!

Some people confuse sports drinks with energy drinks. Sports drinks can rehydrate the body and replenish lost electrolytes during intense physical exertion. On the other hand, energy drinks contain caffeine, which is a diuretic and can actually worsen dehydration. Since energy drinks are carbonated, it's difficult to consume what you need to stay hydrated. The body may have a hard time digesting them due to the high amount of sugar. It is for these reasons that energy drinks have no place in sporting activities.

## WHAT ARE THE SIGNS OF DEHYDRATION?

Watch for increased body temperature, fast heart rate, decreased concentration, cramping, nausea, thirst, dizziness, chills, headache and dark-coloured urine.

### WHAT ABOUT SUPPLEMENTS?

The supplement industry is a multi-billion dollar business promoting unproven products to athletes looking for a performance edge. Athletes can get the nutrients they need by eating a balanced diet and following the recommendations in Eating Well with Canada's Food Guide.

Female athletes who have started menstruating need to ensure optimal iron intake or performance may be negatively impacted. If following a vegetarian diet, ensure plenty of iron-rich foods are eaten, such as legumes and whole grains. Consulting with a registered dietitian can make sure your diet is adequate.

VITAMIN AND MINERAL SUPPLEMENTS DO NOT PROVIDE ENERGY, AS SOME PEOPLE COMMONLY BELIEVE.

The nutrients they contain assist in delivering energy to your body through various chemical reactions, but these nutrients can be found in the foods we eat. The risks associated with these supplements are often overlooked as well. Megadoses can be harmful to your health as some vitamins are stored in your liver and fat cells and can become toxic at high levels.

Protein supplements (most often taken as protein powders) are extremely common to help build muscle mass. But, the protein needs of an active person are only slightly higher than that of a non-athlete and a healthy diet can easily handle this extra activity.

If you're not convinced, check out Rick's scenario online.
TBDHU.COM/EatLikeAChampion

To effectively build muscle, you need a combination of:

- A training program for building muscle designed by a qualified trainer.
- Enough rest between training sessions to build tissue.
- Protein intake that meets your needs.
- Enough calories to cover your energy needs so your body doesn't use protein for energy.
- Optimal nutrition before, during and after workouts.

If your protein and calorie intake is too high, the extra will be converted and stored in your body as fat.

### TRAVEL & RESTAURANT TIPS

Athletes are often required to travel away from home for competitions, tournaments and training. It can be challenging to maintain a healthy diet on the road but these challenges can be avoided by planning ahead.

Prior to travel, inquire about the availability of cooking facilities and restaurants near accommodations. Determine if breakfast is available and what foods and drinks will be served. Check if fridges, freezers or microwaves are available in the hotel room, or if there are kitchenette units with dishes and cookware on hand. If you need to, pack microwave safe dishes, cutlery, a can opener and paring knife.

When bringing food from home, is it important to ensure food safety by packing perishable foods in an insulated cooler with an ice pack. Some ideas for easy, on-the-go foods that will store well in a cooler include boiled eggs, yogurt, cheese, sandwiches, wraps, raw vegetables, pasta, bean salads and fresh fruit.

Non-perishable food items are perfect for traveling athletes. Healthy, on-the-go, non-perishable foods include dried fruit, dried fruit bars, trail mix, nuts, 100% fruit juice boxes, fruit cups, applesauce, dry cereal, crackers, tuna with a flip top lid and peanut butter sandwiches.

Staying hydrated on the road is also very important and one personal water bottle may not be sufficient to cover an athlete's fluid needs. Make sure there is enough fluid available on board or ensure stops for fluids when traveling.



#### **FAST FOODS**

Sometimes fast food may be the only option when traveling. Most fast food meals provide sufficient protein and carbohydrate. However, they also usually contain excessive fat and sodium and lack vegetables and fruit.

Here are some tips to help make the best of a fast food situation.

#### Choose:

- Vegetable and fruit based items such as salads, sliced apples, applesauce, baked potatoes, vegetable side dishes, yogurt and berries, unsweetened juices and fruit smoothies.
- Whole wheat subs, wraps or sandwiches.
- Greek-style meat or poultry kabobs with pita bread and Greek salad
- Stir-fry meals with vegetables and meat/poultry/tofu with rice or noodles
- Mexican soft tacos or burritos with rice
- Baked potato, salad with light dressing and a grilled chicken burger.
- Pasta with meat sauce, salad and a bun.
- Scrambled eggs, yogurt with berries and an English muffin.

### Try to avoid:

 Mayonnaise-based sauces, pastries, gravy, creamy salad dressing, breaded and fried food, bacon, processed cheese and sausage meats.



### RECIPES

## SMOOTHIE NUTRITION BOOST

Super charge your smoothies by adding a tbsp (15ml) of one of more of these:

- Skim milk powder
- Wheat germ
- Peanut butter
- Ground flax
- Ground almonds

### BOOSTER ENERGY BAR

#### **INGREDIENTS**

- 1 cup each' of rolled oats, raisins and crunchy peanut butter
- ½ cup each of dark chocolate chips, honey, oat bran, toasted wheat germ and skim milk powder

#### **PREPARATION**

- Mix all dry ingredients together.
- Mix peanut butter and honey in well.
- Press mixture into a pan.
- Chill and cut into bars.
- Store in fridge or freezer.

### RASPBERRY LEMON SUPER CHARGER SMOOTHIE

Easy to digest, tasty and thirst quenching, smoothies like this have carbohydrates and protein to fuel your active body.

#### **INGREDIENTS**

- 1 cup (250ml) milk
- 1 cup (250ml) frozen raspberries
- ½ cup (125ml) vanillaflavoured yogurt
- 1 tsp (5ml) grated lemon zest

#### PREPARATION.

 In a blender combine all ingredients. Puree until smooth and enjoy.

For more recipes to help your game, visit us online.

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### **MYTHS & FACTS**

1. A diet too low in fat will affect your mental and physical performance.

True – You need some fat to function as it provides long-lasting energy and delivers essential nutrients to your body.

2. Cutting carbs may impair your workout.

True – Carbohydrate rich foods are the prime source of energy for your exercising body and muscles.

3. You need supplements to be in peak performance shape.

False – Save your money. Food has all the nutrients and energy you need to be at the top of your game.

4. Downing an energy drink on the way to the game is the best way to get my energy levels up.

False – Energy drinks are loaded with sugar and caffeine which makes them a poor drink choice for athletes. Follow a balanced diet and get plenty of rest for peak energy levels.

5. Supplements may contain ingredients, substances and contaminants that are not necessarily listed on the label and that could be harmful.

True – They may even contain substances that are banned in sport.

6. Sleep and rest days are not important for athletes.

False – Sleep increases energy, improves alertness, and helps the body recover. Rest days also help your body recover and reduce the risk of injury.

7. Meal skipping and fasting are not harmful to performance.

False – Skipping meals and fasting depletes your energy stores, the same stores your body pulls from for exercise.

8. Having a sugary snack or drink right before the game will give me an energy boost.

False – Consuming sugar within an hour before activity causes a release of insulin which pulls sugar out of the blood so your blood sugar will be too low for peak performance.

### ADDITIONAL RESOURCES

EatRight Ontario Dietitian Service www.ontario.ca/eatright or 1-877-510-510-2

Nutrient Value of Some Common Foods www.healthcanada.gc.ca/cnf

BodySense www.bodysense.ca

Dietitians of Canada www.dietitians.ca (search "sports nutrition")

Coaching Association of Canada www.coach.ca

Eating Well with Canada's Food Guide www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php

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