



Fuel up **FOR FUN!**

NUTRITION & WELLNESS BASICS
for coaches and parents of
active kids ages 6 to 15 years

Physical activity and healthy eating go hand in hand.

Parents and coaches have an important role to play in enhancing the health and well-being of kids through sport, physical activity, and eating right.

Discover how you can support kids' physical, mental and social health by keeping them active and fueling them up with the right foods and beverages to meet their needs for health and well-being.

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GET A MOVE ON!

According to the **Canadian 24-Hour Movement Guidelines for Children and Youth**, children and youth should achieve high levels of physical activity, low levels of sedentary behaviour, and sufficient sleep each day for health benefits.



Source: Canadian Society for Exercise Physiology

A healthy 24 hours includes:

- SWEAT** - An accumulation of at least 60 minutes per day of moderate to vigorous physical activity. Include vigorous physical activities and muscle and bone strengthening activities at least 3 days per week.
- STEP** - A variety of structured and unstructured light physical activities for several hours a day.
- SLEEP** - 5 to 13 year olds need 9 to 11 hours per night.
- 14 to 17 year olds need 8 to 10 hours per night.
- SIT** - No more than 2 hours of recreational screen time per day.
- Limit extended periods of sitting.

Friendly Reminder: Participating in a variety of sports is a great way to help kids meet their daily physical activity requirements. Making it a quality experience includes equal playing and practice time and not sitting kids on the bench.

Follow the Guide

Active kids can meet their nutrition needs by following *Canada's food guide*

Follow the food guide Eat Well Plate

Serve a variety of nourishing foods in these healthy proportions on the plate:

- 1/2 veggies and fruit - the more colourful the better
- 1/4 whole grains like oatmeal, whole grain pasta, brown rice
- 1/4 protein like lean meat, fish, dairy, beans, nuts, poultry, tofu, eggs, seeds, lentils

Aim to:

- Quench thirst with water.
- Use less processed convenience foods. Double-up when you make scratch-meals so you have leftovers to use for quick meals.



Active kids may need extra food to meet their energy and nutrient needs. Let your child's appetite be their guide for how much to eat. Serve food, 'self serve' or 'family style' in platters and bowls.

*What to eat*Foundational Foods **FUEL****No one part of the plate has it all.**

Eating a variety of foods from each section of the food guide Eat Well Plate wins the day in the end – wholesome, nourishing foods that offer unique nutrient ‘packages’ for health. And there are food synergy benefits of eating these foods in combinations.

- **Vegetables and Fruit:** These foods are the champions for fibre, antioxidants, vitamins C, A, potassium and more. Choose veggies and fruit that have colour pop for the most nutrient-rich options. Serve veggies raw or cooked - the healthiest vegetable is the one your family will eat. To satisfy your ‘crunch craving’ munch on raw veggies instead of potato chips.
- **Whole Grains:** Include these foods for energy from carbohydrates, fibre, vitamin E and antioxidants. Cook up a big batch of grains like brown rice, quinoa or barley on the weekend so they’re ready for speedy suppers during the week.
- **Proteins:** Include protein foods at every meal, with a variety of options. All protein foods are not created equal: milk and tofu are some of nature’s richest sources of calcium, legumes provide rich sources of fibre, omega 3 is from fatty fish, choline is in eggs and beef champions iron. Meat is the most concentrated source of protein. Variety is key for protein foods - not one or the other.



DID YOU KNOW: Eating meals at the table encourages the uptake of fruits and veggies. Stats Canada research shows when we eat meat we tend to eat more veggies too.

How to eat

Healthy eating is more than just the foods on the plate, it is the healthy eating patterns that make a difference long-term. The food guide offers guidance on how to eat, not just what to eat.

- Eat together as often as possible (without distractions) and take time to savour your food.
- Cook meals at home with a move to rely less on highly-processed foods and eating out. Amp up your family’s food skills as a family-affair.

**What comes off the plate? Rather than swapping one nutritious food for another like beans for beef, consider this CAUSE FOR CONCERN:**

Canadian children and teens are getting more than half their daily calories from nutrient-poor, highly-processed foods such as: doughnuts, pop, salty snacks, candy bars, ice cream, French fries and frozen pizza.*

The result? Children may get too much sodium and added sugar, and may fall short in fibre and key nutrients such as iron, calcium and vitamin D.

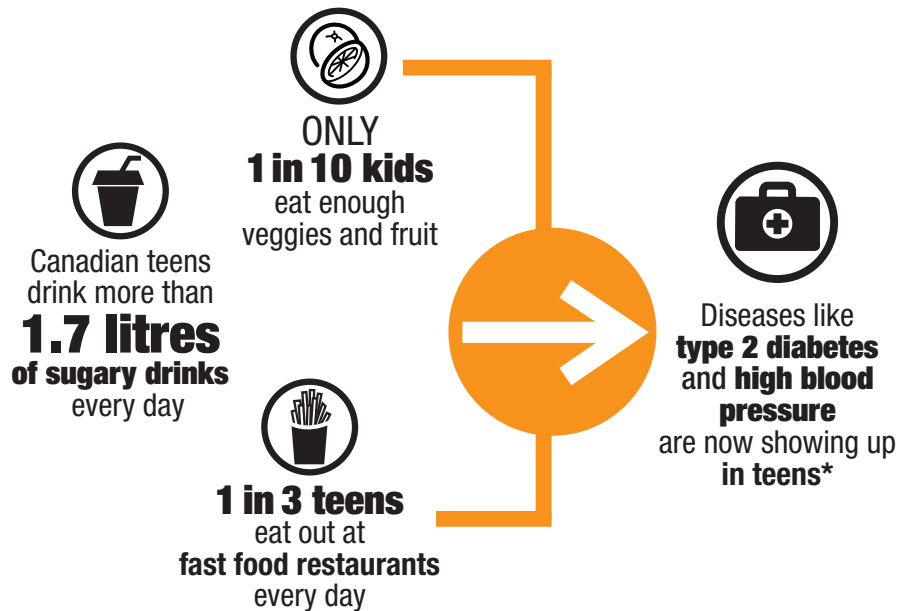


DID YOU KNOW: Canadians get only 5% of their calories from red meat and red meat accounts for only 10% of our saturated fat. Is cutting back on red meat going to make a difference for health?

*Polisky JY et al. 2020. Consumption of ultra-processed foods in Canada. Statistics Canada health reports. Government of Canada.

...it matters:

Unhealthy eating can lead to health problems



Diet is the #1 risk factor for chronic diseases*

Take stock of your family's food habits as well as foods. Aim to replace highly processed food with foods closest to their natural state – “real foods.” This one healthy habit is one of the best ways to improve the health of kids (and the whole family).

*Reference: Let's stop marketing unhealthy food and beverages to kids.(Infographic) Health Canada. Accessed October, 2017.



Treats? Follow the 80:20 Rule

Treats are still ok – after all, where would the world be without chocolate?

A good way to include treat foods in a healthy lifestyle is to limit how often we have them and how much we have.



To support healthy growth and fuel physical activity, ideally aim for most food choices (about 80%) to be nourishing foods leaving some room (about 20%) for less nourishing food choices.

NOTE: Don't make treats taboo or associate guilt or shame with eating them. Instead, teach kids about balance and keep things positive by focusing on healthy choices – make healthy food options the 'go-to' easy and appealing choices.



Kids will eat more fruit such as apples and pears when they are cut up into wedges. That simple step turns these fruits into go-to snacks.

Timing is everything...

Eating the right food at the right time means kids feel energized during physical activity without discomfort from hunger, tiredness, or stomach upset.

It can take time to figure out what works best for each child but there are some basic guidelines to optimize performance.

2 to 3 hours BEFORE physical activity

OFFER A MEAL

Higher carbohydrate + Moderate protein + Lower fat/fibre

Try to avoid higher fat and fibre foods as they slow digestion which can lead to an upset stomach. Suggestions:

- Steak and pepper kebabs with quinoa
- Fish taco, coleslaw, orange segments, fortified soy beverage or milk



1 to 2 hours BEFORE physical activity

OFFER A SNACK

Carbohydrate + Protein

A balanced snack should include carbohydrate and protein foods. Suggestions:

- Small bowl of leftovers from dinner
- Fruit and yogurt smoothie
- Half a peanut butter sandwich

DURING physical activity

There are some occasions when eating during physical activity is needed:

- For intense continuous endurance activities lasting longer than 1 hour, such as running, cycling, or skiing, kids will need some carbohydrate foods to perform well, feel good, and keep up their energy.
- Some sports such as baseball may last a while but they are not continuous activities, so these same guidelines would not apply unless kids are at a tournament and have multiple events in the day.



Offer easy to digest foods and think lower fat and fibre to avoid stomach upset. Try mini muffins, pretzels, cereal bars, fruit slices or diluted fruit juice, or rice/wheat crackers thinly spread with a nut butter.

30 to 40 minutes AFTER physical activity

After physical activity, the body is ready to refuel with carbohydrates, repair muscle with protein, and rehydrate with fluids like water, milk and juicy fruits (e.g. melon, oranges). Eating within 30 minutes of exercising is especially important if the child will be exercising the next day. Otherwise they can eat when they are hungry at their next regular meal or snack.

Challenges

1 - CHALLENGE: Early morning practice

Eat in the car on the way to practice rather than having a sit-down breakfast.

- Drink a smoothie or eat dry cereal with yogurt and banana or grapes.
- Pack something more substantial to eat later in the morning like a sandwich, hard-cooked egg or roast beef wrap and piece of fruit.

2 - CHALLENGE: Practice at dinnertime

Eat half of dinner before practice and the remaining half afterwards OR eat a snack before practice and smaller dinner afterwards.



3 - CHALLENGE: Nervous stomach

Encourage nibbling and sipping with some casual conversation or other quiet distraction.

- Pack dried cereals mixed with nuts and raisins or dried cranberries.
- Provide apple slices and orange segments.
- Offer baby Gouda or cheese cubes with melba toast.
- Make a smoothie for sipping.

4 - CHALLENGE: Not enough veggies

Include veggies in your own meals and snacks so you lead the way with healthy habits for the kids to follow.

- Think snackable veggies like handfuls of snap peas, broccoli florets, grape tomatoes, sweet pepper strips or try spiralized carrots. Offer with ranch dressing, hummus or herbed-yogurt for dipping.
- Include grated carrot, baby spinach or shredded coleslaw to mix in wraps, sandwiches, casseroles, soups, omelette or blended into smoothies.
- Make salads ahead so they are ready to grab-and-go. Divide into individual portions in sealed take-away containers. Pack the dressing separately.

5 - CHALLENGE: Tournament days

Pack foods from home AS MUCH AS POSSIBLE.

- Ask for a mini-fridge with your hotel room in advance and stock it with healthy foods or take a plug-in cooler.
- Pick up fresh fruit and veggie trays at local grocery stores.
- Choose smaller meals and snacks when time is tight between events.
- Eat and drink within 30 minutes after a game to speed up recovery.

Concerned about the child's nutritional well-being? Consult with a registered dietitian for personalized advice. Visit dietitians.ca.



Invite kids to help plan, shop and cook. They'll be more likely to eat the healthy food served and will learn valuable food skills along the way.

Power up with PROTEIN!

Protein is important as it helps to **build muscle and supports muscle recovery after exercise**. Some kids don't get enough. Include protein-rich foods throughout the day, at each meal.



Protein supplements are not needed. They are costly and can't match the nutritional benefits from whole foods. Protein bars are often high in sugar or sugar alcohols and/or fibre which can cause stomach upset.

KNOW YOUR PROTEIN SOURCES

While we can get protein from a variety of foods, it's good to know which ones have the most.

RANKING PROTEIN SOURCES

the most...

Beef
Pork
Turkey
Chicken
Fish
Eggs
Tofu

less...

Beans
Hummus
Nuts/seeds
Lentils
Cheese
Milk
Yogurt
Soy beverage

a bit...

Quinoa
Bread
Pasta
Rice

Consider Protein Density

Animal protein like meat, fish and poultry are higher in protein than plants. Even a small amount of meat offers an incredibly rich source of protein. To demonstrate protein density, here's the amount of food you need to eat to get 35 grams of protein from each.

AMOUNT OF FOOD	
Beef (cooked)	100 grams = 1 serving*
Almonds	approx ¾ cup (5.5 servings); 2 tbsp = 1 serving*
Peanut butter	approx 10 tbsp (10 servings); 1 tbsp = 1 serving*
Hummus	approx 1¾ cups (14.75 servings); 2 tbsp = 1 serving*
Black beans (cooked/canned)	approx 2 cups (4.3 servings); ½ cup = 1 serving*

Source: Health Canada, Canadian Nutrient File, 2015, Beef 6172, Almonds 2534, Peanut Butter 6289, Hummus 4870, Black Beans 3377.

*Table of Reference Amounts for Food: <https://www.canada.ca/en/health-canada/services/technical-documents/labelling-requirements/table-reference-amounts-food/nutrition-labelling.html>

For younger children, with smaller appetites, make nutrient dense foods a priority.



Make sure kids get enough iron from foods such as meats, legumes and fortified bread/pasta/cereals. Not enough iron can leave a child feeling tired and irritable, making it harder for them to keep up with a rigorous training schedule. Iron from meat, fish and poultry is better absorbed by the body than iron from plant-sourced foods like pasta, lentils and leafy greens.

*Stay hydrated***DRINK
UP!**

THIRSTY for FACTS?

FACT: It's important to drink before, during and after sports.

Without enough fluids, kids may become dehydrated, leading to muscle cramps, feeling tired or not performing their best in competition.

Before physical activity

- Aim to have 1 to 2 cups of water up to 4 hours before physical activity (amount depends on age/size of child).
- If 2 hours before an event, urine is dark, or there is very little or no urine, drink more water. About $\frac{1}{2}$ cup to $1\frac{1}{2}$ cups, depending on the age/size of the child.

During physical activity

- Tell kids to sip water every 5 to 10 minutes. Kids will need more water when it's hot and humid.

After physical activity

- Fluid loss continues after physical activity so kids need to drink after practices and games.

FACT: Water and juice are NOT equal choices for hydration.

Water is the best choice for hydration before, during and after competition, a practice or game. Kids will drink more when water is flavoured. Try adding mint leaves or orange or cucumber slices or chunks of watermelon to water.

Juice and pop are high in sugar which makes it hard to absorb the water they contain. That's why they are not recommended for hydration during physical activity. In fact, they increase the chances of dehydration and may cause stomach upset.

Thirst is not a reliable sign of hydration.

A good sense of thirst is not well developed in kids. By the time kids feel thirsty, they are already becoming dehydrated. Dehydration can happen even when there are no symptoms.

Symptoms of dehydration are:

- dry lips/mouth
- flushed skin
- headache
- dizziness
- dark yellow, strong smelling urine

Children and youth should avoid energy drinks.

Energy drinks are NOT good for kids and are NOT the same as sports drinks. Energy drinks have caffeine, which is not recommended for kids, and they are often loaded with sugar making it harder to absorb fluids. Drinking energy drinks during physical activity can lead to dehydration and stomach upset.

What about sports drinks?

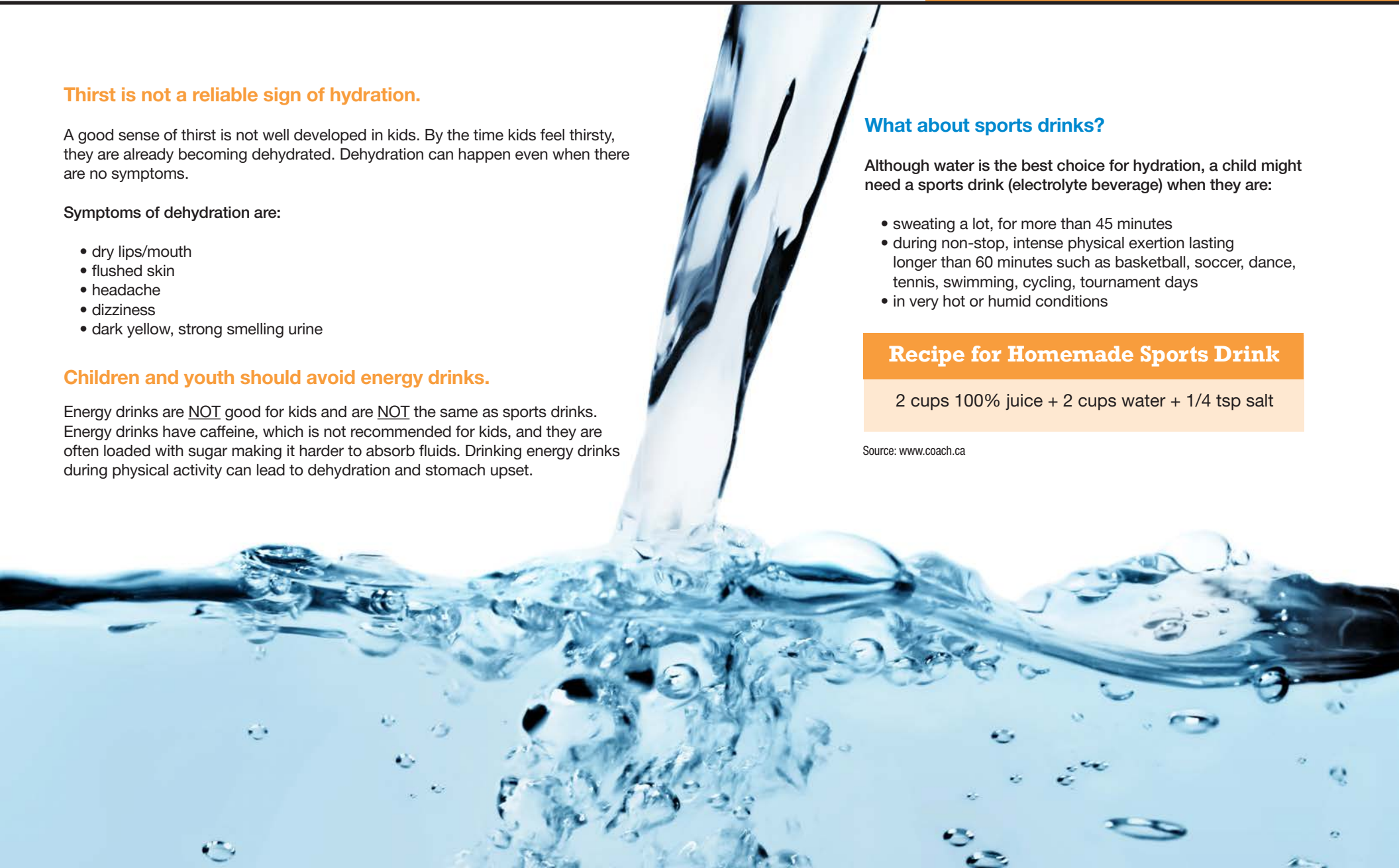
Although water is the best choice for hydration, a child might need a sports drink (electrolyte beverage) when they are:

- sweating a lot, for more than 45 minutes
- during non-stop, intense physical exertion lasting longer than 60 minutes such as basketball, soccer, dance, tennis, swimming, cycling, tournament days
- in very hot or humid conditions

Recipe for Homemade Sports Drink

2 cups 100% juice + 2 cups water + 1/4 tsp salt

Source: www.coach.ca



Make healthy foods available

Everywhere kids live, learn and play, healthy food choices need to be easy to access. It comes down to building a healthy food environment for kids at home, at practice and out at competition.

Tips to Improve Healthy Food Access

1. Make and take meals from home as much as possible.
2. Make veggies and fruit as easily accessible as possible - wash them, cut them and make sure they are out in front of kids.
3. Invest in a food cooler to help keep foods safe and portable.
4. Before tournaments, check to see what grocery stores and food options are close to your team lodging and competition facilities. Does your team lodging have a hospitality room for some simple food prep, reheating and a dinner buffet? Does your team lodging offer access to refrigeration?
5. Share the meal prep workload: make shopping, cooking and cleanup teamwork.

Cook up the possibilities

With busy practice schedules, putting healthy meals on the table is all about working smarter, not longer. Here's how:

1. **Cook once, eat twice:** Sunday's leftover pot roast becomes pulled beef for Monday's taco dinner.
2. **Dust off the slow cooker:** Come home to a cooked meal.
3. **Buy convenient veggie options:** Try salad kits and pre-cut veggies.
4. **Make breakfast for dinner:** Try cheesy scrambled egg burritos.
5. **Meal prep Sunday:** Chop veggies and cook ground meats, steak, chicken or pork ahead of time so that it's a snap to enrich a pasta sauce, soups, tacos and more throughout the week.



For 'away games', use a slow cooker to make pot luck chili for the team party at the hotel hospitality room.



Satisfying Meals on the Sidelines:

If you don't pack good meals from home, your food choices during competitions are limited to the food environment around you such as fast-food takeaways, chip trucks or vending machines. Ugh. Try these sideline meal-ideas for portable lunches that help kids power-up for competition. Protein helps kids feel full longer.

PROTEIN POWERED TOMATO SOUP:

Heat 2 tbsp **oil** over medium heat in large saucepan; cook, 1 onion (diced), 2 **carrots** (thinly sliced), 4 **cloves garlic** (minced), ½ tsp **dried rosemary** (crumbled), ¼ tsp each **salt** and **pepper**, stirring occasionally, until softened, about 8 minutes. Add 3 cups **tomato juice**, 1 cup **beef broth** and 1 cup **water**; bring to boil. Reduce heat and simmer for 10 minutes. Add 2 cups thinly sliced cooked **roast beef** or **steak**, **pork** or **chicken** and 3 cups large cubes **day-old baguette**; stir until bread has 'melted' into soup and soup thickens, about 8 minutes. Stir in ¼ cup **Parmesan cheese** and ¼ cup chopped fresh **basil** or **parsley**.



SALAD-ON-THE-GO: In large sealable container, combine **cooked Scoobi Doo** or **rigatoni pasta** with chunks of **grilled vegetables** (e.g. sweet peppers, zucchini or asparagus), blanched **snow peas** and **green beans** and a splash of **oil**. Pack separately: halved **grape tomatoes**, crumbled **feta**, sliced **green onion** and Mason Jar **Vinaigrette** (below). Just before serving, combine veggies and pasta with just as much dressing as desired; season with **salt** and **pepper** to taste. Serve in cups with skewers of **grilled chicken**, **beef** or **pork**.



MASON JAR VINAIGRETTE DRESSING: In a jar with lid, combine ½ cup **canola** or **olive oil**, 3 tbsp **red wine vinegar**, 1 tbsp EACH **lemon juice** and **maple syrup** or **liquid honey**, 1 tsp EACH **Worcestershire sauce** and **Dijon mustard**, minced **clove garlic** or **green onion**, **salt** and **pepper** and a generous pinch of dried rubbed oregano leaves. Cover and shake to combine.

GREEK SALAD TO GO: Pack each item separately: chunks of **seeded cucumber**, and **plum tomatoes**, crumbled **feta**, minced pitted **kalamata olives**, sliced **green onion**, chunks of **sweet green pepper**, slices of **grilled lamb**, **beef**, **pork** or **chicken**, and bottled **Greek vinaigrette**. To serve, combine all ingredients in a large sealable container or freezer bag and enjoy as a hand held meal in a whole wheat pita or naan bread.



FOOD SYNERGY: There's power in combining whole nutrient-rich foods versus eating one instead of the other. For example, when eaten together, meat helps boost iron absorption from plant food sources by 150% while legumes and whole grains offer fibre that meats do not. For balance and variety serve plant and animal-sourced foods together.

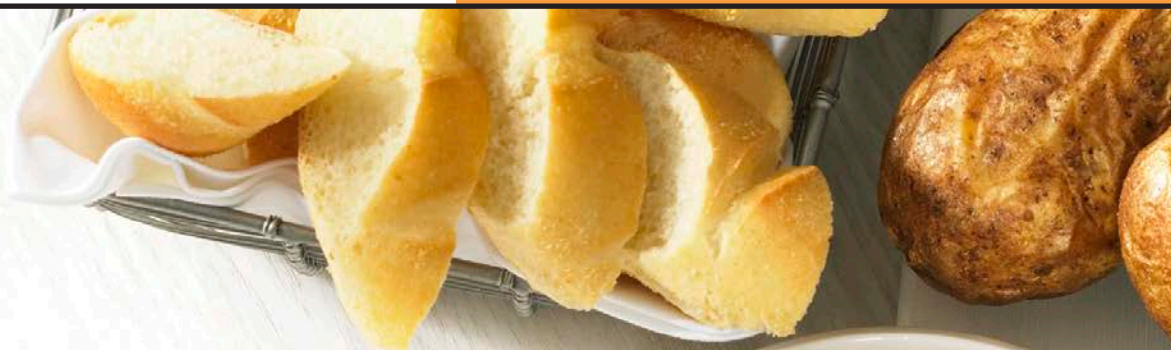
Group Meals:

Whether it's the year-end celebration, team-building day or end of tournament, there's always a team potluck! Here are some super simple ideas for mains that won't keep you chained to the barbecue or oven at the party.

TEX-MEX TACOS: In Dutch oven, cook 1 lb (500 g) **ground beef**, 1 tbsp **chili powder**, ½ tsp EACH: **ground cumin**, **salt**, **paprika** and **ground coriander**, and 1/8 tsp **cayenne pepper** over medium-high heat for 9 to 10 minutes, breaking into small chunks, until browned. Drain; return to pot. Add half EACH: **red sweet pepper** and **onion** (diced); cook for 8 to 10 minutes until vegetables are softened and meat is fully cooked. Add ½ cup thawed **corn niblets** and heat through. Makes approx. 8 tacos. Serve as a DIY taco buffet with tortillas, salsa and taco toppings.



HIGH STICKING: Pack skewers of **grilled chunks of veggies** (zucchini, sweet peppers, mushrooms) and **grilled meat** (chicken, steak, lamb or pork) or **tofu cubes** as part of a buffet. Serve with warmed **whole grain pita** or **naan**, **tzatziki** or **mayo flavoured with harissa**, **pesto** or **roasted garlic**. Serve with fruit kabobs for dessert in keeping with the High Sticking theme.



SLOW COOKER PULLED MEAT:

In a slow cooker, combine **boneless beef blade pot roast** or **skinless boneless chicken thighs** or **pork shoulder roast** together with enough **barbecue sauce** to cover. Add 1 large **onion**, cut lengthwise into wedges, and a can of **seasoned diced canned tomatoes** (if desired). Cover and slow cook on LOW for 8 hours. Skim the sauce of any fat. Use forks to pull the meat into shreds and serve warm in some of the cooking sauce as part of a buffet with sliced warmed buns or bread, baked potatoes and coleslaw.



KABOB SERVING TIP: Place the skewer of veggies or meat in the pita, fold over and hold tight while you pull out the stick.





Fruit & Veg Focus

Often meals out are short on veggies. Here are some helpful tips to get more veggies in when eating out.

- Ask your server to bring a veggie and dip platter to share **before** the beverage order is taken and the bread arrives.
- Start the meal with a vegetable-based salad or soup.
- Ask for more veggies with everything. Swap tomatoes for the home-fries when ordering the breakfast special.
- Salads often have more dressing than you need. Ask for dressings (and condiments) on the side.
- For dessert, choose a fresh fruit cup, applesauce or fruit and yogurt parfait.



Restaurant meals can often serve 2 people. Try splitting or eating family style and share. Pack up any extras to take home for a next-day meal.

Healthy Eat-out Strategies

Practically speaking, there are times when you're going to eat out or eat on the run. Here are some helpful tips to eat well when eating out.

- Look for meals that offer a balanced plate. Include: a protein food (steak, fish, chicken, burger, beans or eggs), two veggie servings and one whole grain like a whole wheat roll.
- How food is cooked matters: steamed, broiled, grilled, baked or roasted are generally better options than battered, crispy, creamy, saucy or fried.
- Craving fries, milk shakes, ice cream or dessert? Order the smallest size available or get 1 order to share. Or ask for half salad/half fries for the side dish instead of just fries.
- Burgers are popular and can be a balanced meal choice when topped or served with veggies. Skip the bacon and sauces.
- Think whole grain: ask for a whole wheat burger or sub bun, pizza crust, brown rice and try oatmeal for breakfast.
- Quench thirst with water or milk or soy beverage, not sweetened drinks, juice or chocolate milk. Ask for lemon or lime wedges with your water to encourage drinking.



Take stock of Convenient Healthy Choices

Part of the hurdle to eating well when on the run is that we don't take stock of the convenience that simple wholesome foods can offer. With just a little planning, you can be prepared with healthy convenient options ready to grab-and-go.

- Bagged arugula and spinach add a nutrient-boost to pizza, sandwiches, soups or tuck into grilled cheese and casseroles prior to cooking.
- Look for single-serve packages of cheese, melba toast, yogurt drinks, applesauce and more.
- Bite-size dippable sweet peppers offer portability for munching with no food waste and no prep.
- Don't underestimate the nutritional value and convenience of frozen fruit and veggie blends. TIP: Include these frozen foods to help keep your cooler-packed foods cold.
- Wash and pat-dry grape tomatoes, grapes and strawberries. Wash up their original store container and line with paper towel. Pack fruit/veg back into their container so they're ready for snacking.
- Invest in a fruit guard carrier to make sure bananas and kiwis aren't crushed to mush when on the go.
- Cook ahead: hard-cooked eggs, grilled steak or chicken breast, brown rice, barley and tortellini. All are perfect additions to make leafy green salads more substantial.





KEY TAKEAWAYS

1. Swap healthy food for highly-processed food.
2. Offer meals and snacks that support healthy growth and optimize performance.
3. Teach kids hydration basics.
4. Plan and cook meals together.
5. Create a healthy food environment at home and away.

Resources:

Alberta Health Services - Sports Nutrition for Youth:
A Handbook for Coaches

Credits:



Carol Harrison, Registered Dietitian

As a mom to 3 sporty kids, I know practical food advice that addresses the challenges of busy training schedules is key to help kids meet their nutrition needs. CarolHarrison.RD



Christa Costas-Bradstreet, Physical Activity Specialist

Encouraging Canadians, including my two daughters, to be physically active in their favourite ways, has been my professional and personal passion for over 30 years.



Courtesy of ThinkBeef.ca, a Canada Beef nutrition education program. Scan code to order more free copies of Fuel Up For Fun or go to: thinkbeef.ca/resource-centre. No charge for shipping. Orders limited to Canada only.