

Sports Nutrition Hockey Guide

For Aboriginal Sport and Recreation
New Brunswick



Sports Nutrition Hockey Guide

For Aboriginal Sport and Recreation
New Brunswick

A guide created by.

Natasha McLaughlin-Chaisson, IOC Dip Sports Nutr., BSc. (Nutr.), RD
Christine Lagacé, MSc, RD

Moncton, New Brunswick
Canada

September 2020

www.nmcnutrition.com



Preface

This guide was created for Aboriginal Sports and Recreation New Brunswick, to offer players, goaltenders and coaches, a nutrition guide for fueling practices and games.

As a resource, it includes important nutrition information that can help players and goalies fuel their bodies before practices, during games, and in recovery.

You will also find a list of symptoms of improper hydration, fueling in overtime, a sample meal plan, and quick and easy recipes. Furthermore, you can access a list of athlete-worthy ingredients for quick fueling and recovery requiring minimal preparation time.

We hope you enjoy this guide as much as we enjoyed developing it! May it help you become the best hockey player you can be.

Sincerely,

Handwritten signature in black ink, appearing to read "M. Lagacé". The signature is written in a cursive style with a large initial "M" and a stylized "Lagacé".

Table of Contents

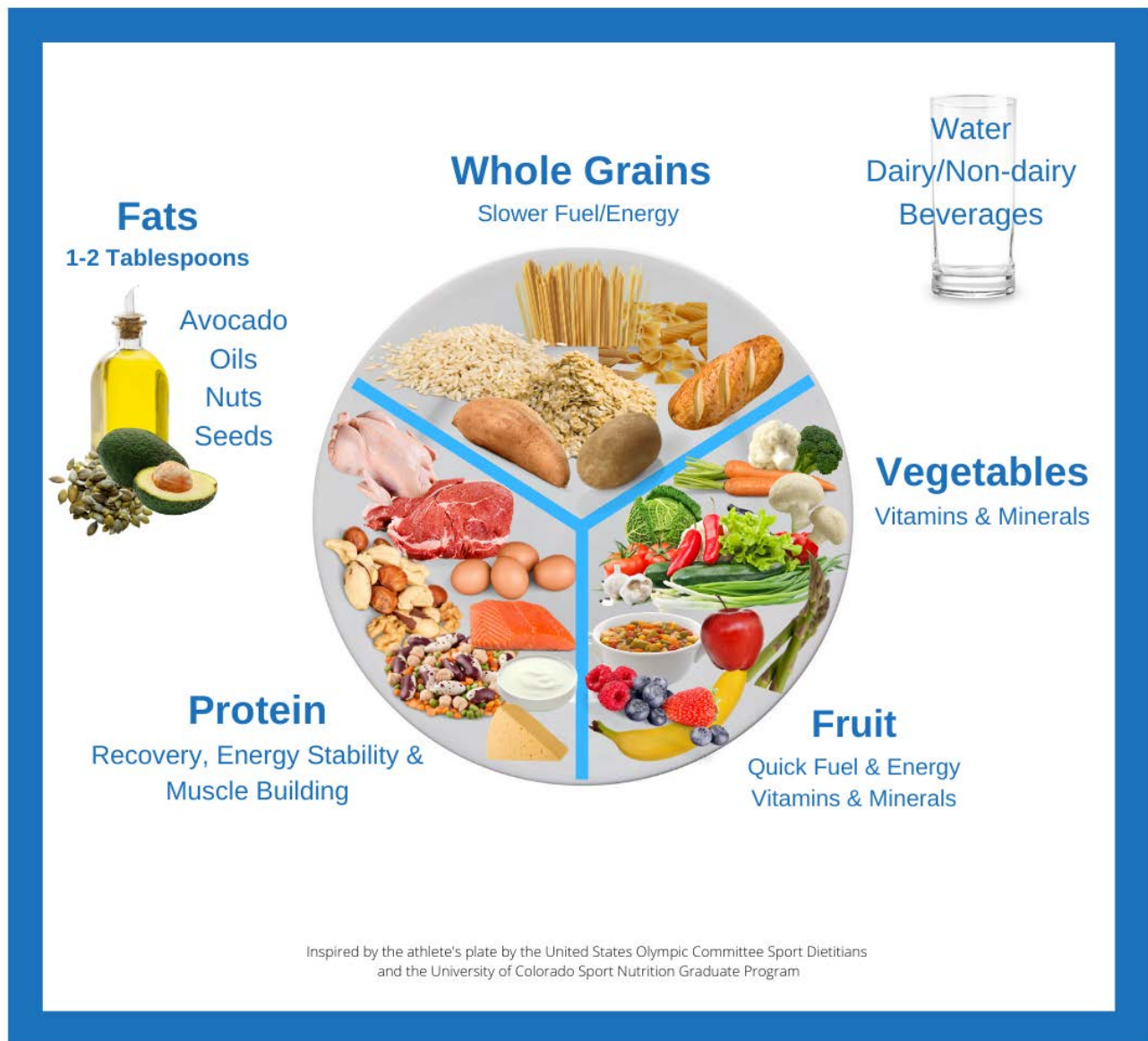
Balanced Meals	1
Moderate Training Plate	3
Hard Training Plate	5
Food Sources	7
Protein and Whole Grain	9
Fruit/Vegetable and Fat	11
Hockey Performance Nutrition 101	13
Hydration	15
Fueling Hockey	17
3-4 Hours Before Game	18
1 Hour Before Game	19
During Practices/Games	20
After Game (Recovery)	21
Meal Plan	23
Game-day Meal Plan	25
Recipes	27
Before Training	29
Oatmeal Muffins	30
Smoothie	31
Energy Balls	32
Bannock	33
Quesadillas	34
Recovery	37
Granola Parfait	38
Chicken and Rice Soup	39
Salmon cakes	40
Fajita Chicken and Veggies	41
Steak and Veggies	42
Pork Chop with Sweet Potatoes and Apples	43

Balanced Meals

Hockey players' bodies are like sports cars. Putting a low-quality gas in the tank won't help it run well. Filling the gas tank with the proper fuel (food) will actually help the player be the best he/she can be.

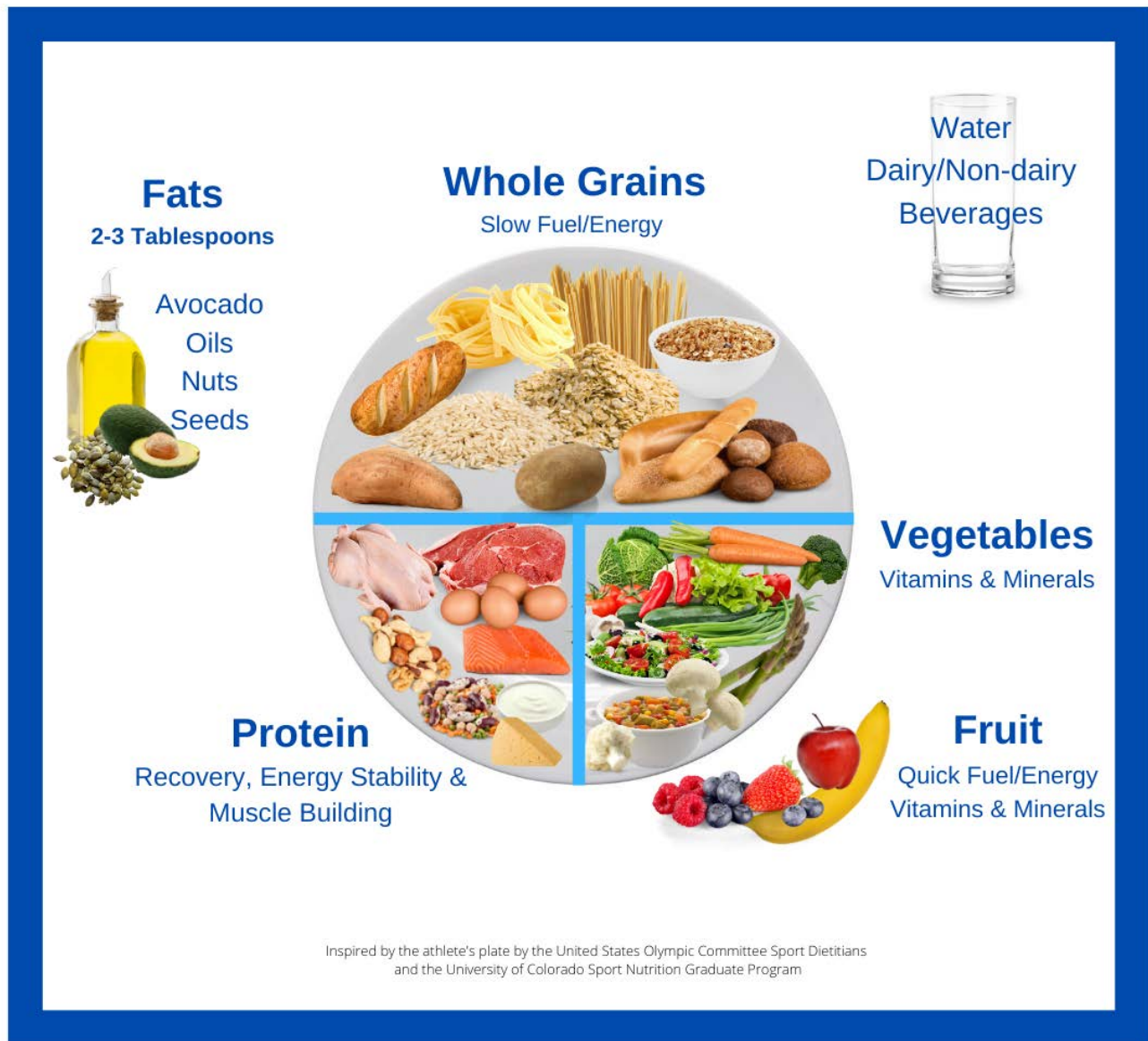


Moderate Training Plate



To be consumed at every meal, on days when practice or training session last about 1 hour.

Hard Training Plate



To be consumed when daily training sessions last 1.5 hours or more, for games or for tournaments. Also for muscle mass gain.

Food Sources



Below are a few sources of protein, whole grains, fruit/vegetables and fat to help you follow the balanced plate.

Protein Sources

- Meat (fresh or frozen)
 - Beef
 - Moose
 - Pork
 - Turkey, chicken
 - Game
- Fish (fresh, frozen, canned, dried)
 - Bass
 - Salmon
 - Trout
 - Tuna
- Nuts
- Cow or soy milk
- Yogourt
- Eggs
- Peanut / nut butter
- Canned pulses (chickpeas, lentils, kidney beans and black beans)

Whole Grain Sources

- Whole grain/whole wheat bread
- Starchy vegetables (potato, corn, squash, sweet potato)
- Oatmeal
- Bannock
- Barley
- Wild/brown rice
- Pasta

Fruit/Vegetable Sources

- Fruit (fresh, frozen, dried, canned in water)
 - Berries
 - Bananas, apples
 - Pears, peaches, pineapple
 - Raisins
 - Fruit purées
- Vegetables (fresh, frozen, canned)
 - Peas
 - Carrots
 - Cabbage
 - Tomatoes
 - Cucumber
 - Fiddleheads
 - Etc.

Fat Sources

- Cheese
- Vegetable oil (canola, olive)
- Butter/margarine
- Nuts
- Avocado
- Salad dressing/vinagrette

Hockey Performance Nutrition 101



CCM

KC BEARS

INDIA
WARRIORS

Integrity

NG 200

Pratt School

CCM

CCM

CCM

CCM

CCM

Hydration

Hydration : Drinking liquid such as water.

Studies show that 2 out of 3 hockey players are not hydrated when they play. This means that they didn't have enough water to drink the day before the game.

Signs of needing water or sodium (salt) include:

- Dark urine first thing in the morning:

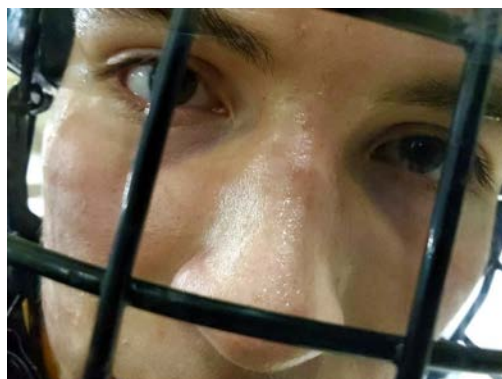
URINE CHART:

Clear  Light  Medium  Dark 

**Remember that some medication or supplements taken before bed can change urine tint and make this a non-reliable factor.*

- Thirst
- Headaches
- Muscle cramps

Not being hydrated can affect your endurance (cardio), sprint times, power, reaction time, decision making and skills by up to 30%. When you think you are playing at your best, you could be playing at only 70% of your best!



Hydration

During practices, players tend to lose 1-2 Liters of sweat hourly. Goalies can sweat up to 3 Liters hourly! As for games, 2-3 Liters of total sweat lost per game is average after puberty.

It takes 4-24 hours to completely hydrate. Here are a few tricks:

- Carry a water bottle.
- Sip small amounts of water regularly throughout the day.
- Start with drinking 2-3 Liters of total liquid a day (water/milk...).
- Drink water during practices lasting 1 hour or less.
- Drink sports drinks, such as regular Gatorade or Powerade (see homemade version too), when practices or games last longer than 1 hour.

Homemade Sports Drink

Take a bottle of choice and fill as directed:

½ juice (100%)

½ water

2 pinches of salt

Fueling Hockey



- Breakfast should be consumed within 30-60 minutes after awakening.
- Don't go longer than 3 hours without eating and not more than 1 hour without drinking.
- The last balanced meal (heavy plate, p. 5) is to be consumed 3-4 hours before the game.
- Reduce by half the protein and fat amounts recommended if you are having your meal 1-2 hours before a practice or game.

3-4 Hours Before Game

Here are a few meal options:

- Bagel (whole grain) + scrambled eggs + cheese + lettuce + tomato + mayonnaise+ side of greek yogurt/fruit + milk or juice to drink
- 12-inch sub (whole grain) + 2 x chicken + spinach + carrots + cucumbers + tomatoes + sweet sauce + granola bar + milk or juice to drink
- Pasta + chicken + tomato sauce (not alfredo) + vegetables + side of bread + milk or juice to drink
- Potatoes + baked salmon + vegetables (fresh or frozen) for stir fry + side of bread + milk or juice to drink
- Tortillas + corn + peppers + onions + tomatoes + lettuce + cheese + ground beef + chili powder + salsa + sour cream + milk or juice to drink
- "Grilled tuna melt" with bread + cheese + drained canned tuna + side salad + added fruit + juice or milk to drink



1 Hour Before Game

PURPOSE : Fill up the " gas tank " for maximum speed and to protect body from muscle loss.

Signs that you are not eating enough (or the right food):

- Fatigue
- Frustration/anger
- Headaches
- Regular injuries
- Trouble with focus and concentration
- Feeling slow (no gas in the tank)
- Often getting sick (viruses...)
- Not able to build muscle or strength
- Absent/irregular menstrual cycles
- Repeated bone injuries
- Training hard, but not improving

Examples of snacks:

- Banana
- Peanut butter sandwich
- Applesauce
- Dried fruit
- Granola bar or pretzels
- Dry fruit bar

During Practices/Games

For practices and games lasting less than 1 hour or for training camps, consume both liquid and carb snack:

- Sports drink (regular gatorade or powerade) or homemade option (p.16)
- Carb snack halfway through practice OR between periods
 - banana
 - pretzels
 - drinkable applesauce
 - granola bar
 - raisins or other dried fruit
 - dry fruit bars
 - bread or tortilla + jam

DO NOT wait until the end of the second period to begin hydrating!



After Games (Recovery)

TIMING: Within 30-60 minutes after a practice/game

PURPOSE : To refuel, rehydrate, restore electrolytes and repair damaged muscle tissue



Examples of balanced recovery meals/snacks:

- Granola parfait (p. 38)
- Fried eggs, cheese, on a bagel + side of fruit
- Smoothie (p. 31) + energy balls (p. 32)
- Salmon cakes (p. 40)

Meal Plan



ASR
NEW BRUNSWICK

SPORTCHEN

ASR
NEW BRUNSWICK

SUNNY CORNER
THUNDER

BAUER

BAUER

BAUER



Hall
234771
Furniture
523-8881

CREDIT UNION
523-8020

Pizza

523-5230

Game Day Meal Plan

TIME	AMOUNT	FOOD
Breakfast	2 cups	Frozen fruit
7:00am	2	Eggs
	1	Bagel
	1 cup	Milk
Snack	30	Crackers
9:00am	2/3 cup	Greek yogurt
	1	Applesauce
Practice (10:00am)		Regular gatorade + pinch of salt
Lunch	1	Chicken breast
11:30am		Spaghetti Sauce + side salad
	2 cups	Pasta
Pre-game nap 2:00pm		
Snack	1 cup	Juice
4:00pm	3 Tbsp	Nut butter (peanut butter, almond butter, Wow butter)
	2	Slices of bread
Snack 6:20pm	1	Banana
Game 7:30pm	1	applesauce <i>between periods</i> (regular Gatorade during game)
Recovery Diner	12 inch	Sub
10:00pm	2x	Chicken
	varied	Veggies

*This meal plan is an approximate. Adapt to individuals.



Recipes

Before Training

Oatmeal Muffins



Ingredients

- 1 cup oats
- 1 ½ cups white or whole wheat flour
- 2–3 large overripe bananas (Or 1 cup applesauce)
- 2 large eggs, lightly beaten
- 1/3 cup maple syrup
- 3/4 cup milk
- 2 teaspoons vanilla extract
- 2 teaspoons baking powder
- 1/2 teaspoon baking soda
- 1/2 teaspoon salt
- 1 teaspoon cinnamon



Preparation

1. Preheat oven to 350 degrees.
2. Mash bananas, then add eggs, maple syrup, milk and vanilla. Mix to combine.
3. Mix dry ingredients in a second bowl.
4. Add dry ingredients to wet ingredients and mix.
5. Scoop into greased muffin tins.
6. Bake for 20 -23 minutes. (Toothpick inserted in the center of a muffin should come out clean.)

Make a double batch and freeze it for a quick grab on busy days!

Smoothie



Ingredients

Choose at least two different fresh, frozen or canned fruit (1 cup)

- Orange (peeled)
- Kiwi (peeled)
- Pineapple
- Banana
- Mango
- Melon
- Berries (Strawberries, blueberries, raspberries, etc.)

Add a protein-containing liquid (1 cup) Cow's milk or soy milk

Add more protein

- Greek yogurt
- Peanut butter
- Soft tofu
- Skim milk powder
- Cricket powder

Add fiber:

- Dry oats
- Seeds

Berries are high in antioxidants, which helps the body adapt to training.

Preparation

1. Put everything in the blender and blend until smooth! If the smoothie is too thick, add some liquid!

Energy Balls

By: Sport Nutrition Network. (2014).



Ingredients

- 1 ½ cups oats
- ⅔ cup unsweetened coconut
- ½ cup peanut butter
- ½ cup ground flaxseed or chia seeds
- ½ cup raisins
- ½ cup chopped dates
- ½ cup sunflower/pumpkin seeds or slivered almonds or walnuts
- ⅓ cup honey or maple syrup
- 1 teaspoon vanilla extract

Preparation

1. Stir all ingredients together in a medium bowl until thoroughly mixed.
2. Let chill in the refrigerator for half an hour.
3. Once chilled, roll into balls of about 1" in diameter.
4. Store in an airtight container and keep refrigerated for up to 1 week.
5. Makes 45-50 balls (1").

Tips and Hints:

- Substitute the raisins or dates for your favorite dried fruit such as cranberries, dried blueberries or apricots.
- For a sweeter kick, you can throw in a few chocolate or carob chips.
- For a higher protein power; add either 4 tbsp skim milk powder or 1 scoop of your favorite protein powder.

Reference: Sport Nutrition Network. (2014). Retrived from <https://www.sportmed.mb.ca/wp-content/uploads/2014/12/Energy-Balls-Recipe.pdf>.

Bannock



Ingredients

- 1 ½ cups all purpose flour
- 1 ½ cups whole wheat flour
- 1 teaspoon salt
- 2 tablespoons baking powder
- ¼ cup melted butter
- 1 ½ cups water

Preparation

1. Preheat oven to 400 °F.
2. Mix all dry ingredients in a bowl.
3. Work in water and butter using your hands.
4. On a floured surface, pat and knead dough gently about 10 times.
5. Shape into a large circle on a greased baking sheet.
6. Bake for 25 minutes or until lightly brown.

*Can be frozen for up to 6 months

Food containing fiber helps athletes sustain energy for better performance and development.

You can add additional ingredients to the recipe such as :

- Cheese + onions
- Cinnamon + raisins
- Berries

Quesadillas

Ingredients

- 1/2 block extra firm tofu, pressed, cubed and grilled for 5 minutes or chicken (try precooked chicken to save time)
- 1/2-1 cup cheese, shredded
- 1/4 pepper, diced
- 1/4 tomato, diced
- 2 mushrooms, diced
- Handful spinach, diced
- 1 green onion, diced
- 1 teaspoon lemon juice
- Salt to taste
- 1/2 garlic clove, minced
- 4 large whole wheat tortillas
- Sour cream or avocado to dip



Preparation

1. Add all ingredients to both bottom tortillas and top with second tortilla.
2. Grill in a pan on both sides until the tortillas get crispy.
3. Serve warm with side of avocado or sour cream with a side of salad or raw vegetables.

This recipe can be made in a hotel or anywhere you can find a clothing iron. Just put the garnished tortillas between two aluminum foil sheets or towels and press with hot clothing iron to "grill".



Recovery

Granola Parfait



Ingredients

- 1 cup of granola
- 1 large container of plain greek yogurt
- 1/2 cup of orange juice
- 2 bananas
- 2 kiwis
- Handfull of nuts of your choice
- Handfull of dry fruits

Preparation

1. Mix in bowl all ingredients.
2. Refrigerate and serve as needed.



Store in the refrigerator for up to 4 days and serve yourself a bowl as a snack! Try different ingredients to change the flavor! Try replacing kiwis with berries.

Chicken And Rice Soup



Ingredients

- 3 chicken breasts, cut in half
- 1 cup parboiled rice*
- 1 small onion, chopped
- 3 carrots, chopped
- 3 celery stalks, chopped
- 3 garlic cloves, minced
- 3 teaspoons salt
- pepper to taste
- 2 teaspoons parsley
- 1 teaspoon thyme
- 1/2 teaspoon rosemary
- 1/2 teaspoon sage
- 1 bay leaf
- 2 tablespoons butter, optional
- 9 cups chicken broth

* If you prefer brown rice or wild rice, leave the parboiled rice out of the slow cooker when adding the other ingredients.

While the soup is cooking in the slow cooker, prepare 1 cup uncooked brown or wild rice according to the package directions (once cooked, this will yield approximately 3 cups of rice). Stir the cooked rice into the soup just before serving.

Preparation

1. Place all ingredients in a slow cooker.
2. Cook on low for 4 hours.
3. A few minutes before serving, remove the chicken from slow cooker and shred or cut into cubes.
4. Return chicken to the slow cooker, and let it cook for 5-10 more minutes.



Reference: Favorite Family Recipes. (2020). Adapted from <https://www.favfamilyrecipes.com/slow-cooker-chicken-and-rice-soup/>

Salmon Cakes

Ingredients

- 2 sweet potatoes
- 3 green onions, diced
- 2 tablespoons (50 mL) coriander
- 2 tablespoons (15 mL) dijon mustard
- 1/2 teaspoon concentrated lemon juice
- 2 eggs, beaten
- 2 cans (each 7.5 oz/213 g) salmon or fresh salmon, drained and mashed
- Regular olive oil for cooking



Preparation

1. Wash and prick potatoes with a fork. Microwave on high for 10 minutes or until tender. Peel potatoes.
2. In large bowl, mash potatoes until smooth; stir in onions, coriander, mustard and lemon juice. Blend in eggs. Fold in salmon. Let cool for 5 minutes.
3. Using your hands, shape into 8-12 patties.
4. In large nonstick pan, cook 4 of the patties for about 5 minutes per side or until golden. Repeat with remaining patties.
5. Consume with side of vegetables such as carrots, and cucumbers.

The bones in the cans of salmon should not be removed as they are actually an excellent source of calcium! Calcium is important for bone health.

Fajita Chicken And Veggies

Ingredients

- 4 boneless skinless chicken breasts
- 4 bell peppers, chopped
- 2 tablespoons oil
- 1/2 onion, chopped
- 2 teaspoons taco seasoning
- 1 teaspoon chili powder
- 1 teaspoon cumin
- 1 teaspoon garlic powder
- Salt and pepper to taste



Preparation

1. Preheat oven to 375 degrees.
2. Cut chicken into 1-inch pieces.
3. Combine chicken, peppers, and onions in a large bowl. Drizzle oil over the top, then sprinkle seasonings over the top and mix.
4. Transfer everything to a sheet pan and spread it out so that it is arranged in an even layer.
5. Bake for 15-20 minutes until chicken is cooked through and veggies are tender. Serve with tortilla or over steamed rice.

Reference: The Recipe Critic. (2020). Adapted from <https://therecipecritic.com/one-pan-fajita-chicken-veggies/>



Steak And Veggies



Ingredients

- 4 cups baby red potatoes
- 6 cups broccoli florets
- 2 tablespoons olive oil
- 3 cloves garlic, minced
- 1 teaspoon dried thyme
- Freshly ground black pepper, to taste
- 16 oz (1-inch-thick) top sirloin moose or beef steak, patted dry

Moose is a lean source of protein and a good source of iron. Iron is necessary for proper oxygen delivery to an athlete's muscles.

Preparation

1. Preheat oven to broil. Lightly oil a baking sheet.
2. In a large pot of boiling water, cook potatoes until parboiled for 12-15 minutes; drain well.
3. Place potatoes and broccoli in a single layer onto the prepared baking sheet. Add olive oil, garlic and thyme; season with pepper, to taste. Combine.
4. Season steaks with pepper, to taste, and add to the baking sheet in a single layer.
5. Place into oven and broil until the steak is browned and charred at the edges, about 5-10 minutes per side.

Reference: Damn Delicious. (2016). Adapted from <https://damndelicious.net/2016/12/16/sheet-pan-steak-and-veggies/>

Pork Chop With Sweet Potatoes And Apples

Ingredients

- 4 pork chops
- 4 cups sweet potatoes peeled and cut into 1-inch wedges
- 2 medium apples cored and cut into wedges
- 2 tablespoons olive oil
- 2 tablespoons balsamic vinegar
- 1 tablespoon Dijon mustard
- 1/2 teaspoon black pepper



Aim for 2 different colors of fruit or vegetables at each meal as each color contains different nutrients.

Preparation

1. Preheat oven to 400° F. Add olive oil to a baking sheet. Arrange pork chops on the sheet pan.
2. Add the sweet potatoes and apple wedges to a large bowl.
3. Mix together the olive oil, balsamic vinegar, dijon mustard and pepper in a small mixing bowl and pour over the sweet potatoes and apples. Toss to coat sweet potatoes and apples, then arrange around the pork chops.
4. Pour the remaining marinade over the pork chops.
5. Bake until the pork chops are cooked through, about 20 to 25 minutes.

Reference: Add a pinch. (2020). Adapted from <https://addapinch.com/sheet-pan-pork-chops-with-sweet-potatoes-and-apples-recipe/>

<http://www.asrnb.ca>

www.nmcnutrition.com

