



Injury Protocol

Pointe-Claire Swim Club 2022-2023 Season

“Be proactive and not reactive.”

Injury Prevention

Injury prevention is an integral part of our training at the Pointe-Claire Swim Club. This includes, but is not limited to:

- Focusing on always developing proper swimming technique.
- A continual focus on flexibility and mobility at the pool and at home. **See Appendix 1 for our Mobility program and Appendix 2 for our Flexibility program.**
- Prioritization of recovery through sleep. **See Appendix 3 for sleep resources.**
- Prioritization of effective nutrition for athletes. **See Appendix 4 for nutrition resources.**

Steps to take if pain occurs during a training

1. Communicate the situation with your coach and your parents.
2. Follow the instructions given to you by your coach on how to deal with the pain.
3. Provide daily updates to your coach
4. If the pain persists for 72 hours without diminishing, speak to your coach again. You can then see your own specialist, or your coach will fill out a Pointe-Claire Integrated Support Team (IST) request for you. **See Appendix 5 for more information on Pointe-Claire’s IST Services.**

After seeing a specialist

1. Update the coach following the diagnosis/appointment and provide them with as much information as possible.
2. Your coach will put together a training and rehab plan based on the information received. *Please note the complexity of this plan will vary based on the age and experience of the athlete.* **See Appendix 6 for information on individual recovery plans.**



Appendix 1

Mobility Exercises

Pointe-Claire Swim Club 2022-2023 Season

Mobility Exercise List

Upper Body Mobility

Section 1: Dowel Required

1. Lying Pastors
2. Dowel Loaders
3. Thoracic Extensions paired with Rotation

Section 2: No Equipment Required

4. Y Cuffs/Swimmers
5. Pendulums

Lower Body Mobility

1. Frog Stretch
2. Scorpions
3. 90-90s

Upper Body Mobility

Section 1: Equipment Required - Wood Dowel

48 inches long, 1 inch diameter

1. Lying Pastors



This mobility exercise is performed with a dowel. Lie chest down on the floor. Extend and straighten your arms in front of you and grab a dowel in both hands; your grip should be wider than your shoulders. A wider grip will facilitate this exercise. Lift your chest slightly off the ground and rotate your arms up and over, with the dowel traveling from in front of your head all the way to your bum. Bring the dowel back to the starting position to complete one repetition of the exercise.

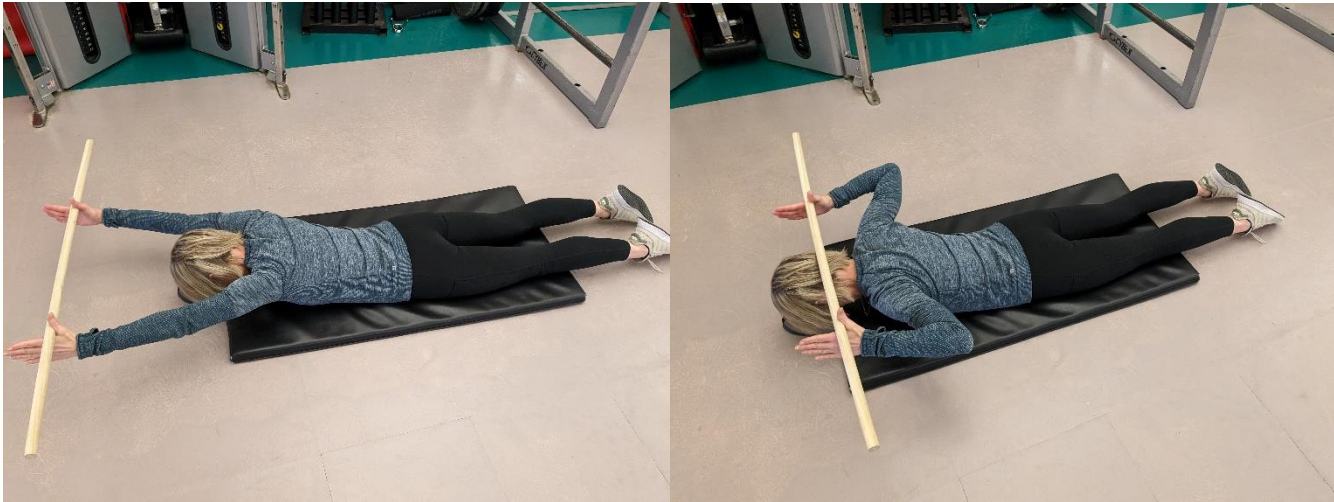
Goal

Increase shoulder mobility, as defined as the ability of a joint to move actively through a range of motion

Routine

- This mobility exercise should be performed 3 times a week for no more than 20 repetitions.
- Each repetition should be slow and controlled, taking about 5 seconds to perform.
- This should provide a gentle stretch, without pain.

2. Dowel Loaders



This mobility exercise is performed with a dowel. Lie chest down on the floor. Extend and straighten your arms in front of you and grab a dowel in both hands; your grip should be only slightly wider than your shoulders. A wider grip will facilitate this exercise. Place your hands on the ground pinky finger down with thumbs pointing upwards. Place a dowel between your thumb and index finger. Lift both hands off the ground simultaneously, maintaining your pinky down and thumb up. Horizontally slide the dowel backwards towards your neck, passing lightly above your head. Bring the dowel back to the starting position and touch the floor with both pinky fingers to complete one repetition of the exercise.

Goal

Increase shoulder mobility, as defined as the ability of a joint to move actively through a range of motion

Routine

- This mobility exercise should be performed 3 times a week for no more than 20 repetitions.
- Each repetition should be slow and controlled, taking about 5 seconds to perform.
- This should provide a gentle stretch, without pain.

3. Thoracic Extensions paired with Rotation



This mobility exercise is performed with a dowel. Lie chest down on the floor. Extend and straighten your arms in front of you and grab a dowel in both hands; your grip should be wide, with each hand on the end of a standard-length dowel. While keeping your hips and chest touching the ground, press one hand and the dowel into the floor while rotating the other hand straight up while keeping your chest and hips touching the ground. Bring the dowel back to the floor to complete one repetition.

Goal

Increase shoulder mobility, as defined as the ability of a joint to move actively through a range of motion

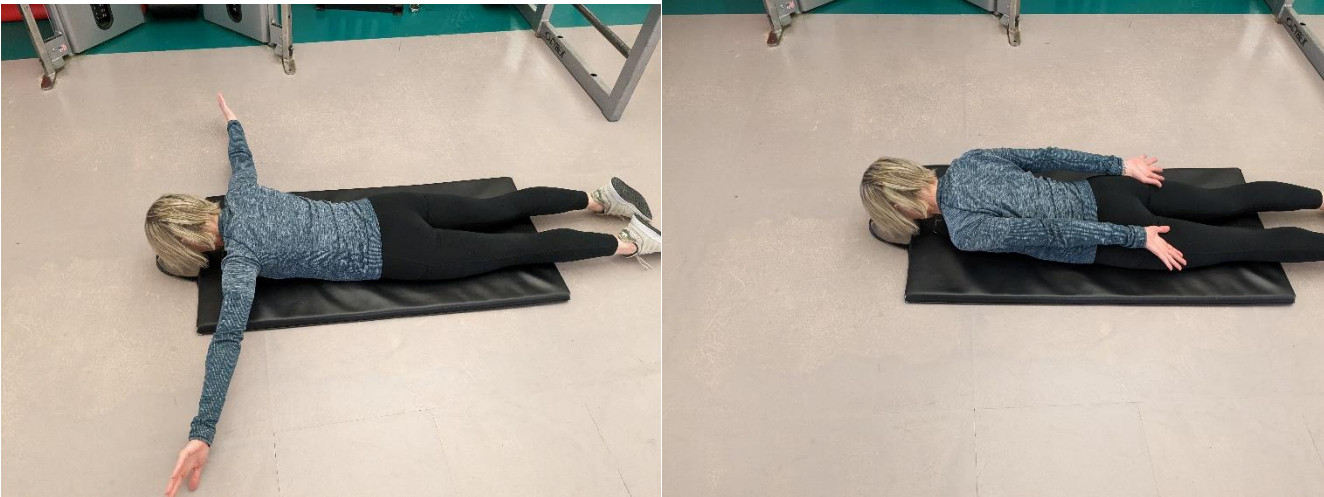
Routine

- This mobility exercise should be performed 3 times a week for no more than 20 repetitions.
- Each repetition should be slow and controlled, taking about 5 seconds to perform.
- This should provide a gentle stretch, without pain.

Upper Body Mobility

Section 2: **NO** Equipment Required

4. Y Cuffs/Swimmers



This mobility exercise does not require any equipment. Lie flat on your front in a streamline position with your hands slightly apart. With your arms 2 inches off the ground and your palms facing the floor, trace a wide circle, keeping your arms straight. Rotate your hands through the range of motion by turning your thumbs down and finishing with your palms facing upwards. Touch the back of your hands on your bum and then return to the starting position in the same manner to complete one repetition.

Goal

Increase shoulder mobility, as defined as the ability of a joint to move actively through a range of motion

Routine

- This mobility exercise can be performed every day of the week for no more than 20 repetitions.
- Each repetition should be slow and controlled, taking about 5 seconds to perform.
- This should provide a gentle stretch, without pain.

5. Pendulums



This mobility does not require any equipment. Lie flat on your front in a streamline position with your hands slightly apart. Turn your thumb downwards and your pinky up on one hand. While keeping your chest in contact with the floor, bring your arm over the top to outside of your hip, making sure to keep it straight through the range of motion. Return your arm to the starting position to complete one repetition.

Goal

Increase shoulder mobility, as defined as the ability of a joint to move actively through a range of motion

Routine

- This mobility exercise can be performed every day of the week for no more than 20 repetitions.
- Each repetition should be slow and controlled, taking about 5 seconds to perform.
- This should provide a gentle stretch, without pain

Lower Body Mobility

NO Equipment Required

1. Frog Stretch



Lie facedown on the ground and place the bottoms of your feet together. While keeping your knees and hips on the ground, try and bring your feet as close to the floor as possible without coming apart.

Goal

Increase hip mobility, as defined as the ability of a joint to move actively through a range of motion

Routine

- This mobility exercise can be performed every day of the week for 1 to 2 minutes a session.
- This should provide a gentle stretch, without pain

2. Scorpions



- a. *Lie face down on a mat with your legs fully extended behind you and your arms stretched out to either side. Your body should be in the shape of a T.*
- b. *Rest your chin on the mat and look down so your spine is in a neutral position from your neck to your tailbone.*
- c. *Press your palms lightly onto the floor to remind yourself to keep your upper body in this position. During the stretch, avoid moving your upper back, chest, or shoulders.*
- d. *Lift your right leg from the ground and bend your right knee to a roughly 90-degree angle. Reach your right foot across your left leg and try to touch the ground outside your left leg with your right toes.*
- e. *Your hips and lower back will rotate as you move, but your chest and shoulders should stay in place.*
- f. *When you feel a stretch through your right hip flexor, your right glute, and your lower back, stop moving. (Your toes do not need to touch the ground, or even come close.)*

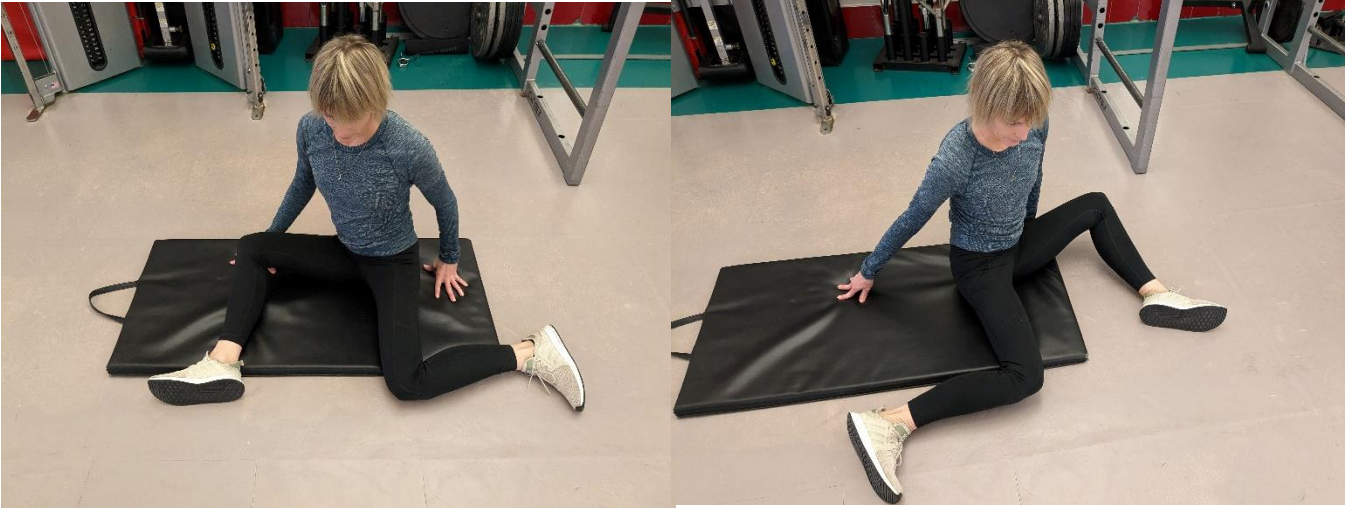
Goal

Increase hip mobility, as defined as the ability of a joint to move actively through a range of motion

Routine

- This mobility exercise can be performed every day of the week for no more than 20 repetitions.
- Each repetition should be slow and controlled, taking about 5 seconds to perform.

3. 90-90s



Sit on the floor with your legs in front of you. Bend both legs at the knee, forming a 90-degree angle with a gap between your knee and the forward foot. Your ankles should be neutral; your feet will be relaxed and pointing straight. Your back knee should be in line with your hip, and your ankle should be neutral.

Try to keep your back straight and resist the urge to bend to one side. While keeping your ankles, hips, and bum in contact with the ground, pivot your knees over the top to the other side. Repeating this motion to return to your starting position constitutes one repetition.

Goal

Increase hip mobility, as defined as the ability of a joint to move actively through a range of motion

Routine

- This mobility exercise can be performed every day of the week for no more than 20 repetitions.
- Each repetition should be slow and controlled, taking about 5 seconds to perform.
- This should provide a gentle stretch, without pain

Appendix 2

Pointe-Claire Swim Club Athlete Flexibility Program

Appendix 3

Resources: Effective sleep for athletes

How Much Sleep Does an Elite Athlete Need?

Reference: Sargent et al. IJSP 2021

Designed by @YLMSportScience

175 elite athletes (30 females, 22.2 ± 3.8 years) from 12 individual and team sports

Images provided by PresenterMedia



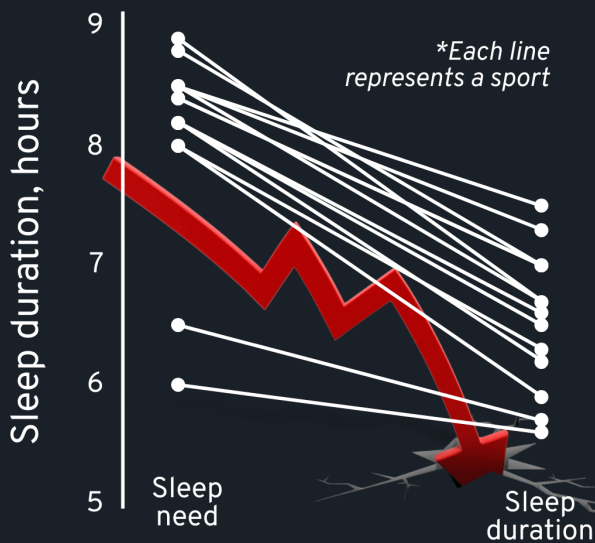
They answered the question "how many hours of sleep do you need to feel rested?"



They kept a self-report sleep diary



They wore a wrist activity monitor for ~12 nights during a normal phase of training



RESULTS

1. The athletes needed 8.3 ± 0.9 h of sleep to feel rested, their average sleep duration was 6.7 ± 0.8 h
2. This resulted in a sleep deficit of 96 ± 61 minutes per night
3. Only 3% of athletes obtained enough sleep to satisfy their self-assessed sleep need
4. 71% of athletes fell short by an hour or more



This is a critical finding, given that insufficient sleep may compromise an athlete's capacity to train effectively and/or compete optimally

Appendix 4

Effective nutrition for athletes

ATHLETE'S PLATE

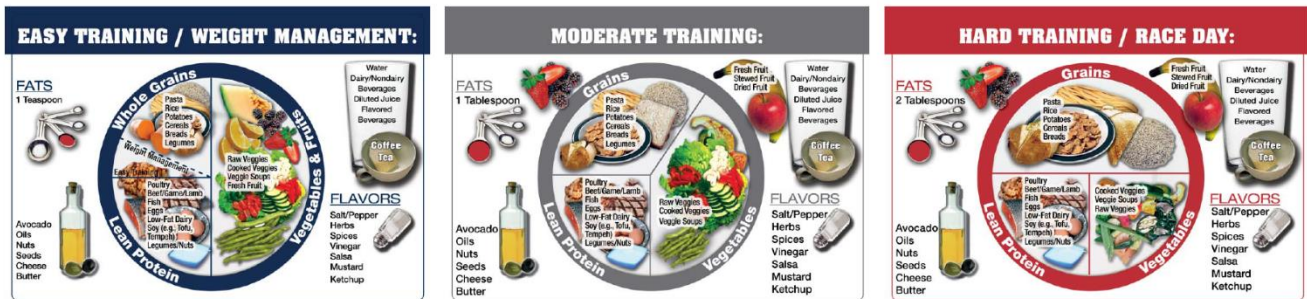
Training volume and intensity vary from day to day and week to week along your training/competition plan. Eating your meals and fueling your workout or race should also be cycled according to how hard or easy it is. Consult with your sport dietitian to put the Athlete's Plate into practice!

The Athlete's Plates are tools for you to better adjust your eating to the physical demands of your sport!

EASY An easy day may contain just an easy workout or tapering without the need to load up for competition with energy and nutrients. Easy day meals may also apply to athletes trying to lose weight and athletes in sports requiring less energy (calories) due to the nature of their sport.

MODERATE A moderate day may be one where you train twice but focus on technical skill in one workout and on endurance or strength in the other. The moderate day should be your baseline from where you adjust your plate down (easy) or up (hard/race).

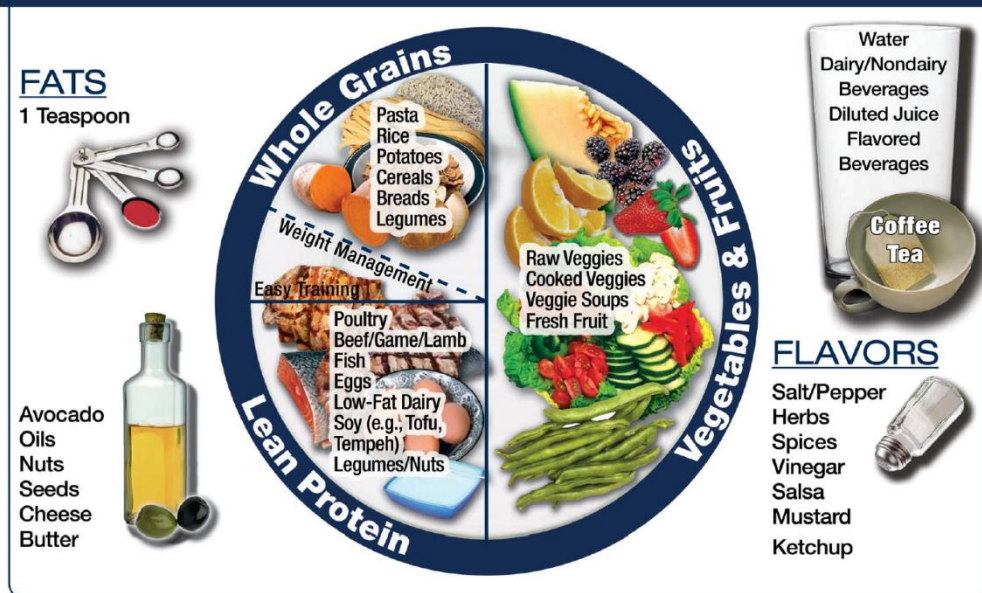
HARD A hard day contains at least 2 workouts that are relatively hard or competition. If your competition requires extra fuel from carbohydrates, use this plate to load up in the days before, throughout, and after the event day.



The Athlete's Plates are a collaboration between the United States Olympic Committee Sport Dietitians and the University of Colorado (UCCS) Sport Nutrition Graduate Program. For educational use only. Print and use front and back as 1 handout.

ATHLETE'S PLATE

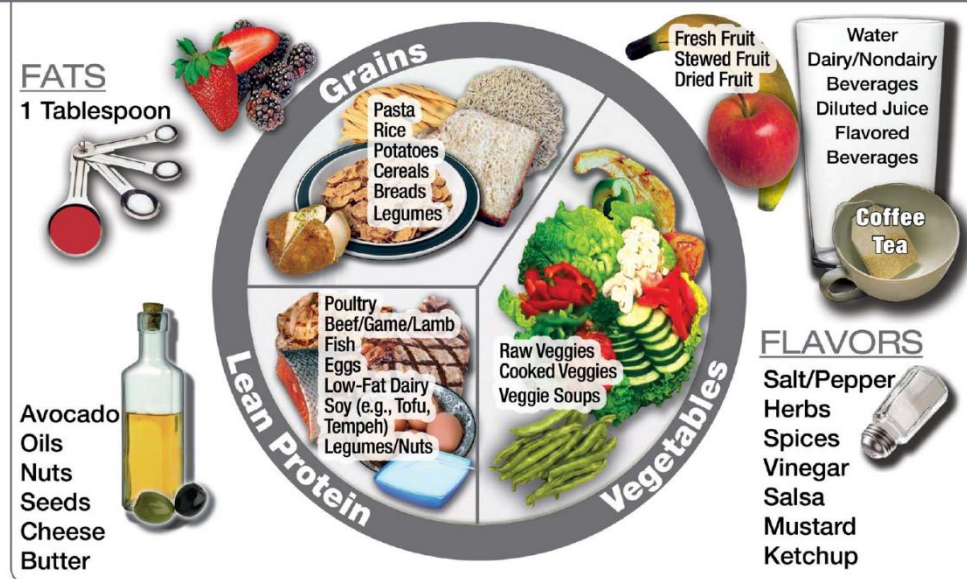
EASY TRAINING / WEIGHT MANAGEMENT:



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ATHLETE'S PLATE

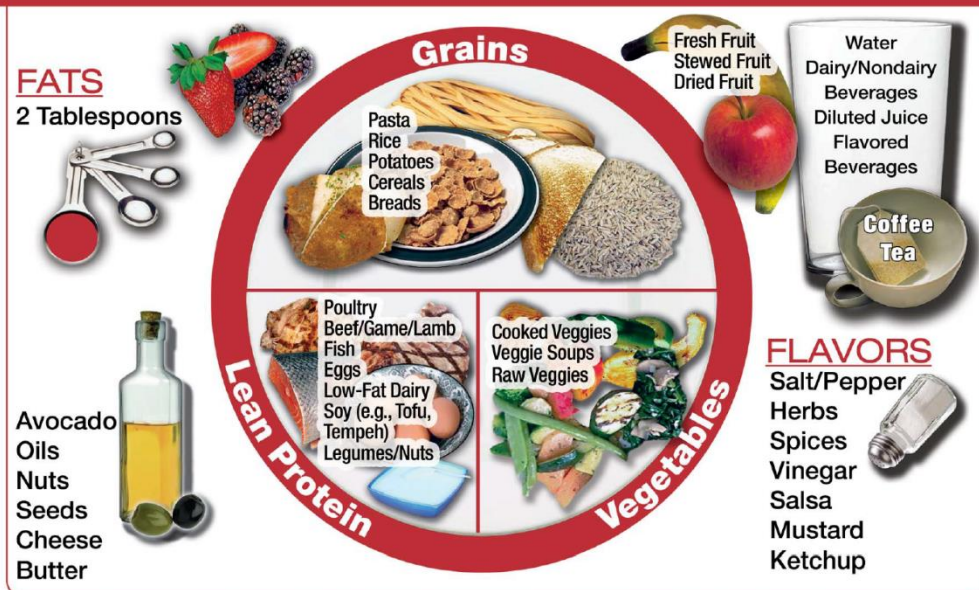
MODERATE TRAINING:



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ATHLETE'S PLATE

HARD TRAINING / RACE DAY:



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What is Recovery Nutrition?

Recovery nutrition encompasses fluid, macro, and micronutrient replacement following a training session. A sound recovery nutrition protocol will allow athletes to optimize training adaptations and perform at their body's full potential in the next training bout, the next training block, and year after year.

Recovery extends beyond the short-term recovery window immediately following training. An athlete's consistent day to day habits allow for nutrition to support improvements in performance.



The Four R's of Recovery

Replenish muscle glycogen (carbohydrate stored in muscle) following a training session. Aim for 30-60g carbohydrate.

Repair and regenerate skeletal muscle with high quality protein sources and key amino acids (e.g. leucine). Aim for 15-30g protein.

Reinforce muscle cells, immune function, and central nervous system function with colorful and anti-oxidant rich foods (e.g. fruits, veggies, whole grains, fish, nuts, olive oil).

Rehydrate with fluid and electrolytes according to individual sweat lost during training. See Hydration Factsheet to calculate fluid losses.

Recovery Nutrition Depends On:

- ✓ Type of training session
- ✓ Training volume
- ✓ Training intensity
- ✓ Timing of your next training session
- ✓ Body weight
- ✓ Whether you are training or competing

Consuming Nutrients Within 30-60 Minutes of Training or Competition:

- ▶ Can enhance nutrient delivery to muscles while heart rate and blood pressure are increased
- ▶ Can result in faster glycogen replenishment and initiation of tissue repair
- ▶ Can support the body's metabolic switch from muscle breakdown to muscle building

When is Recovery Nutrition Most Important?

- High volume or intensity training sessions
- Heavy lifting sessions
- Competition
- Consecutive days of competition
- 2-3 training sessions in a day

Following a light training session (e.g. skills/drills, yoga, stretching, recovery day, weight loss phase) the next meal or snack is sufficient to meet recovery needs.

Recovery is Continuous

While the body may be most responsive to nutrients in the 1-2 hours after exercise, continuing to deliver the right nutrients for the next 24-48 hr fully enhances the training response as well and prepares you appropriately for upcoming training sessions.

Continue to **repeat** the ingestion of all of these nutrients in well-balanced meals and snacks every few hours in order to achieve your total daily nutrient needs.

Successful recovery will only occur with proper planning! Think about training sessions ahead of time in order to plan and pack the appropriate foods.

Recovery Snack Ideas

Choose a food from protein column + food from carb column based on training session!

Protein: 15-20 g	Protein: 20-25 g	Carbohydrates: 15-30 g	Carbohydrates: 45-60 g
<ul style="list-style-type: none"> • 3/4 c. cottage cheese • 2 string or slices of cheese • 1 c. firm tofu • 2-3 cooked eggs • 2-3 oz. deli meat • 1 1/2 oz. jerky • 2-3 oz. fish, chicken, beef, pork • 1/2 c. nuts or seeds* • 4 tbsp. nut butter** • 1/2-3/4 c. edamame • 1 c. beans* • 2 c. milk (cow's, soy)* • 1/2-3/4 c. plain Greek yogurt* 	<ul style="list-style-type: none"> • 1 1/2 c. cottage cheese • 1 1/4 c. firm tofu • 3-4 cooked eggs • 3-4 oz. deli meat • 2-2 1/2 oz. jerky • 3/4-1 c. nuts or seeds* • 1 c. edamame • 1-1 1/2 c. beans or lentils* • 1 serving protein powder • 2/3 c. roasted edamame • 1 1/2 c. Greek yogurt* • 3-4 oz. fish, chicken, beef, pork 	<ul style="list-style-type: none"> • 1 piece or cup fresh fruit • 1/4-1/2 c. dried fruit • 1 c. fruit juice • 1 c. chocolate milk • 1/2 c. oatmeal • 1-2 slices sandwich bread • 1 English muffin • 1 granola or cereal bar • 1 x 8" tortilla or wrap • 1/2-3/4 c. rice or farro • 1/2-1 c. quinoa, beans, lentils* • 3/4 c. cooked pasta • 1/2 c. applesauce 	<ul style="list-style-type: none"> • 2-3 pieces or cups fresh fruit • 3/4-1 c. dried fruit • 2 c. fruit juice • 2 c. chocolate milk* • 1-1 1/2 c. oatmeal • 1 bagel • 2 English muffins • 2 x 8" tortillas or wraps • 1-1 1/2 c. rice or farro • 1 1/2-2 c. quinoa, beans, lentils* • 1 1/2 c. cooked pasta

Key: *Protein source contains at least 15g of carbs, carb source contains at least 10g protein

**High calorie protein source due to high fat content

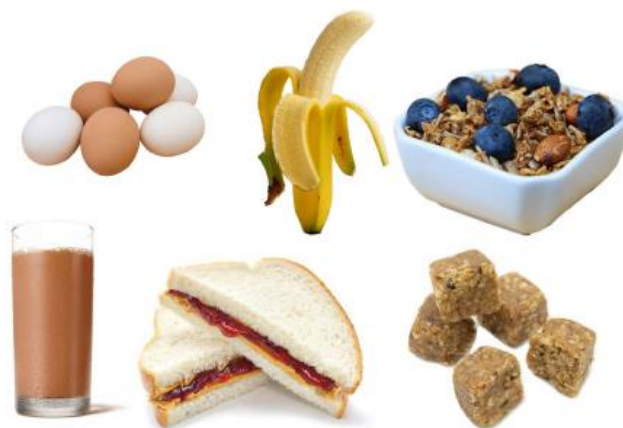
Athlete Recommendations:

+

Fueling Before Competition

Athletes need to consume adequate carbohydrate to optimize carbohydrate stores (glycogen) in the liver and muscle. This helps maintain blood sugar levels and fuels muscle contraction. Insufficient carbohydrate intake decreases the ability to sustain heavy loads / high intensity exercise, mood state, mental acuity, and power output during intermittent high intensity performance, and has the potential to negatively influence immune function.

During sleep, carbohydrate stores in the liver are used to maintain blood sugar levels, leaving glycogen stores low upon waking. Fueling and hydrating before competition are essential to replenish energy stores and optimize hydration status.



Not accustomed to eating early?

- ▶ Athletes can train the stomach to tolerate food & fluid before competition.
- ▶ Practice introducing foods & fluids during training in the weeks prior to competition to see how they will be tolerated.
- ▶ Start with easily digestible foods & fluids - toast, a banana, water or juice - and gradually add additional foods over time.
- ▶ If solid foods are not tolerated, try a liquid snack or meal, such as a sports drink or smoothie

Develop a Fueling Plan

Your fueling plan needs to be individualized and depends on...

- ▶ Duration
- ▶ Intensity
- ▶ Type of competition
- ▶ Ability to consume additional fuel during the competition
- ▶ Previous day's intake

TIP: Practice your fueling plan during training before utilizing it during competition

A good RULE OF THUMB is to avoid trying anything new on the day of competition!

Fueling Strategies for Competition

Feel comfortable ★ Top off fluids - start hydrated ★ Top off carbohydrate for brain and muscle

Days Leading up to Competition

- ▶ If taper in training, consider small reduction in energy intake
- ▶ No need to carb load unless competition duration is > 2-3 hr; make sure carbohydrate intake is adequate at each meal and snack
- ▶ Consider reducing fiber intake if bowel function becomes an issue during competition
- ▶ Maintain adequate hydration levels
- ▶ No "special" meal required, stick to familiar foods and fluids
- ▶ Be mindful of food safety and only eat foods from trusted sources and restaurants
- ▶ Sleeping at altitude or in a hot environment may increase the risk for dehydration; increase fluid intake upon waking to top off fluid levels

Caffeine

If using any performance enhancing aids (e.g. caffeine), make sure you are aware of the effects and potential side effects. Every athlete responds differently to varying amounts of caffeine, so dosing for performance should be done gradually and tested in training before use in competitions.

Refer to our Caffeine Fact Sheet for more information on timing and dosing.

Day of Competition

- ▶ Choose familiar foods trialed during training
- ▶ Eat a balanced meal **3-4 hours** before or a smaller meal/larger snack **2 hours** before
 - Adding protein to your meal can help delay the onset of hunger during competition
 - If you eat a meal 3-4 hours before competition, then top up on familiar and easily digestible carbohydrates within **15-60 minutes** of competing, such as a sports drink, carbohydrate chews/gel, fruit, or a granola bar
- ▶ Foods higher in fat and fiber slow digestion and may cause stomach distress if consumed too close to competition
 - Spicy or acidic foods eaten close to competition may also lead to indigestion and heartburn
- ▶ Ensure fueling plan is adaptable to different competition times and food availability / travel
- ▶ If you are particularly nervous before competition you may prefer to consume a meal or snack in liquid form rather than solid
- ▶ Maintain adequate hydration in the 24 hours prior to competition and sip on fluids leading up to competition

Athlete Recommendations:

Fueling Plan Examples

Olympic Triathlon Early Morning Race	
Saturday	
7:00 pm Dinner	4 oz salmon 1-1.5 cups couscous 1 cup grilled veggies 8 oz water
Sunday	
4:00 am Awake	
4:30 am Breakfast	1 cup oatmeal 1 Tbsp peanut butter 1 banana 6 oz greek yogurt 8-16 oz water
6:30 am	carb gel/chews, water
7:00 am Race Start	
7:30 am	carb gel/chews, water
8:30 am	sports drink, water
9:00 am	sports drink, water
9:30 am	water & recovery
Finished!	

Volleyball Afternoon Match	
7:00 am Awake	
7:30 am Breakfast	3 scrambled eggs 2 pieces whole wheat toast 2 Tbsp peanut butter, honey 1 cup strawberries 8-16 oz water
11:00 am Lunch	turkey sandwich baby carrots with hummus 1 cup pretzels 6 oz greek yogurt 8 oz milk, 8-16 oz water
1:30 pm Snack	1 banana or granola bar 8-16 oz water
2:00 pm Match Start	
2:00 – 4:00 pm Fueling	16-32 oz sports drink, water OR 16-32 oz water, gel/chews
4:00 pm	water & recovery
Finished!	

Special Considerations by Sport

Continuous Endurance - cycling triathlon, distance running, distance swimming, cross-country skiing, biathlon

- ▶ If eating breakfast 3-4 hours before morning competition is not possible, eat a carbohydrate-rich dinner the night before and a light breakfast
- ▶ The aggressiveness of fueling before competition depends on the ability to ingest additional carbohydrate during the event
- ▶ Fueling during the event should be addressed

Intermittent High Intensity, Team Sports - volleyball, basketball, hockey, water polo, soccer

- ▶ If the competition is in the afternoon or evening, eat balanced meals leading up to competition
- ▶ Top up with water and a carbohydrate-rich snack before the game

Long Duration, Low Intensity, Technical - archery, shooting, curling

- ▶ Eat a balanced meal 3-4 hours before competition
- ▶ Choose small carbohydrate-based snacks and water during competition

Multiple Short Duration, High Intensity Events - track & field, swimming & diving, alpine skiing, snowboarding, rugby 7s

- ▶ Refueling between events is the key to performing repeatedly throughout the same day

Combat Sports - boxing, judo, taekwondo, wrestling

- ▶ After weigh ins replenish fluid and glycogen stores before competing
- ▶ Consume sports drinks and small, high carb meals between events
- ▶ Add salt to foods in the evening to ensure adequate replenishment of fluid and electrolytes

Multi-Event Fueling Plan Examples

Swim Races – AM Preliminaries & PM Finals	
Saturday evening	
7:00 pm Dinner	4 oz chicken 1-1.5 cups whole grain pasta 1 cup roasted veggies 8 oz water
Sunday	
4:00 am Awake	
4:30 am Breakfast	1 bagel 1 Tbsp peanut butter 1 orange 6 oz cottage cheese 8-16 oz water
6:30 am	carb gel/chews, water
7:00 am 200 m Prelims Race Start	
7:30 am 2nd Breakfast (Recovery)	fruit smoothie (water, Greek yogurt, spinach, frozen pineapple & mango)
9:30 am Snack	bar or banana
11:00-11:30 am Lunch	1-2 cups brown rice 4-6 oz chicken 1 cup veggies 16 oz water
12:00 – 2:00 pm	water, sports drink
3:00 pm 200 m Finals Race Start	
3:30 pm Finished!	water & recovery

Freestyle Wrestler – 74 kg Athlete	
Friday	
Note: Avoid high fiber foods and if you can tolerate more food than below, go for it!	
2:00 pm Weigh In	
Step Off Scale	8 oz Pedialyte
Next 30 minutes	5-8 salty crackers, 12-24 oz sports drink (add in pinch of salt) - sip
1-2 hours post weigh in	1-2 bananas or plain bagel with jam or honey 12-24 oz sports drink - sip
Dinner	1.5-2 cups whole grain pasta 3 oz lean ground turkey, marinara 12-24 oz sports drink - sip
After Dinner	8 oz chocolate milk or granola bar or fruit 12-24 oz sports drink - sip <i>*Be sure to urinate before going to bed!</i>
Saturday Matches	
Wake up	12-24 oz sports drink and water <i>*Check urine color</i>
Breakfast	2 packets oatmeal 1 Tbsp honey 2-3 hardboiled eggs 8 oz Pedialyte
Between Matches	Follow 'Fueling Between Events' Urine color should be light
9:00 am 1st Match	
9:15 am	12-16 oz sports drink
10:00 am 2nd Match	
Large snack	PB&J sandwich banana low fat fruit greek yogurt
1:15 pm Finished!	water & recovery

Fueling Between Events

- If < 1 hr, stick to fluids (e.g. water and sports drink)
- If 1-2 hr, small snack (e.g. 1/2-1 bar or banana plus fluids)
- If > 2 hr, more substantial snack with protein (e.g. sandwich, chocolate milk, fruit, yogurt)
- If 24 hr or more, good recovery snack then normal eating throughout rest of day



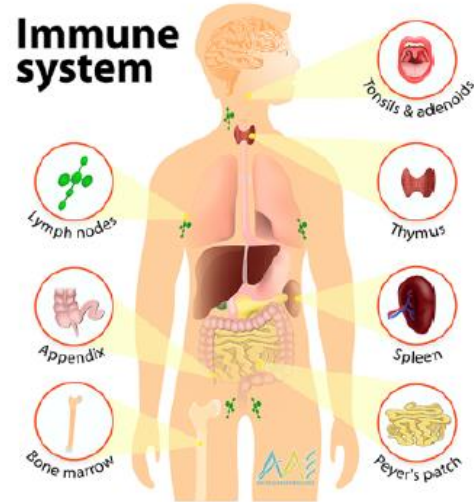
IMMUNE FUNCTION FACTSHEET

The Immune System

The immune system is made up of a network of cells, tissues and organs that work together to protect the body. When foreign objects are identified by the immune system, white blood cells (leukocytes) are signaled to secrete antibodies that protect the body against infectious disease. The immune system also plays an important role in the inflammatory response resulting from injury to tissue. When injury occurs, cytokines are released to trigger several inflammatory mechanisms involved in the recovery and healing process. When the immune system is compromised or is less active than normal, there is a higher vulnerability for infective illnesses. This is called immunosuppression.

Signs and Symptoms of Immunosuppression

- ▶ Reoccurring or prolonged common infections, including upper respiratory tract infections, ear infections, and gastrointestinal distress due to infection
- ▶ Abnormal routine blood panels (white blood cells and other immune system blood markers)
- ▶ Inability to recover between training sessions
- ▶ Fatigue



When Are Athletes at Risk?

- ▶ Exposure to frequent or extended travel
- ▶ During a period of high training volume and intensity without adequate recovery time
- ▶ Under extreme environmental stress (i.e. climate, altitude)
- ▶ Heightened exposure to pathogens (airborne or blood-borne transmission, contaminated food or fluids)
- ▶ Insufficient blood cell counts (i.e. low platelet counts, anemia)
- ▶ Insufficient intake of food or fluid
- ▶ Inadequate sleep and poor recovery
- ▶ Anxiety or alterations in mood

Note: If you are experiencing any of the above signs and symptoms, or are concerned about your recovery response time, please contact your sports medicine physician or sport dietitian.

IMMUNE FUNCTION FACTSHEET



Immune Boosting Foods

Food Source	Benefit	Daily Recommendation
Citrus Fruits	Rich in vitamin C and aid in white blood cell production to help fight infections	1/2 - 2 cups
Garlic	Contains calcium, potassium and sulfuric compounds which protect against bacteria and infection	1-2 cloves (1-2 tsp. minced)
Ginger	Provides antioxidant, antimicrobial and anti-inflammatory properties	1.5-3 tsp. fresh ginger, 1/4-1/2 tsp. ground ginger
Spinach, Kale, Swiss Chard, Arugula, Beets	Rich in antioxidants and nitrates which help protect cells and guard against inflammation	1-3 cups raw veggies, 1/2 - 1 cup cooked veggies
Green Tea	Rich in flavanoids and contains L-theanine which protects against bacteria	2-3 cups
Greek Yogurt, Kefir	Helps protect against travelers' diarrhea and upper respiratory tract infection	1 cup Greek yogurt 1 cup Kefir

Meal and Snack Ideas

- ▶ Add spinach and chopped garlic to scrambled eggs
- ▶ Top Greek yogurt with orange slices, strawberries, kiwis
- ▶ Swap out one cup of coffee with one cup of green tea
- ▶ Top a favorite salad with beets or citrus fruit
- ▶ Add sliced lemon to a water bottle and sip throughout the day
- ▶ Sprinkle fresh or powdered ginger on a rice dish
- ▶ Add dark greens or beets to a recovery smoothie

ImmunoBoost Shot *Servings: 1 shot*

- 1/2 cup orange juice
- 1/4 tsp. minced garlic
- 1 Tbsp. fresh ginger or 1 tsp. powdered ginger
- 1/2 tsp. curcumin
- 1/2 tsp. cinnamon
- 2 tsp. honey

Shake in a blender bottle or blend and pour.

*Avoid taking on an empty stomach for improved tolerance.

Immune Boosting Protocol for Travel

1-2 Weeks Prior to Leaving

- ▶ Increase consumption of immune boosting foods
- ▶ Start supplementing with probiotics to prevent traveler's diarrhea and boost gut integrity particularly when traveling to higher risk destinations (e.g. where drinking bottled water is recommended)
- ▶ Look for strains of *Saccharomyces boulardii* and a combination of *L. acidophilus*, *B. bifidum* and *Lactobacillus Gg*

2 Days Prior to Leaving

- ▶ Consider taking a reputable immune boosting supplement that contains vitamin C + zinc** or a homemade ImmunoBoost Shot (see recipe)

During Travel

- ▶ Continue supplementing with probiotics throughout duration of travel
- ▶ Continue taking vitamin C + zinc supplement or ImmunoBoost Shot for the first 2 days of travel
- ▶ Be diligent about hand washing and sanitizing, particularly in athlete dining halls

**Avoid chronic use of high dose antioxidant dietary supplements to prevent immunosuppression, as it can negatively affect training adaptations.

Appendix 5

Pointe-Claire Integrated Support Team Information



INTEGRATED SUPPORT TEAM (IST)

What is IST?

The **I**ntegrated **S**upport **T**eam (IST) comprises of a team of professionals that employ an evidence-based approach to the systematic evaluation and preparation of athletes.

Access

All Pointe-Claire Swimming, Diving, and Canoe Kayak athletes have access to our IST services.

How to Apply

Speak to your coach or the coach of your child and they will start the process for you.

Services Offered

Our Integrated Support Team provides services providers in

- Mental Performance
- Sport Nutrition
- Strength and Conditioning
- Athletic Therapy

Cost

The cost varies based on the service provider.

Subsidies are available for athletes that reach an elite level (varies by each competitive club).



Appendix 6

Recovery Plan: Example of Contents

Pointe-Claire Swim Club 2022-2023 Season

The following applies only after the athlete has consulted with one of the Pointe-Claire IST specialises or their own private specialist.

After seeing a specialist

3. Update the coach following the diagnosis/appointment and provide them with as much information as possible.
4. Your coach will put together a training and rehab plan based on the information received.

A Recovery plan may include the following information

Please note the complexity of this plan will vary based on the age and experience of the athlete.

- A recovery timeline, considering competitions and the practice plan.
- Exercises that the athlete must integrate into their training or day-to-day routine (*usually provided by the support professional*).
- Scheduled times for feedback from the athlete, parent, and support professional throughout the recovery process.
- New realistic goals for the season. Parents and swimmers should understand that injuries may cause setbacks in performance.