

# **Water Vipers 2026 Handbook**

Welcome to the team!

This living document aims to provide you with everything you need to know to navigate the season and make the most of your time on the team once you've joined. If you have any questions, please don't hesitate to ask. We hope to continue revising this document so that it can serve as a valuable reference for others in the future.

*New to the team? Take a quick look at [Hello & Welcome to the Water Vipers](#) first!  
You can read the rest later 😊*

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## Club Overview

In 2023, The Water Vipers became both a competitive and recreational club, offering outreach programs such as our learn-to-paddle and try-it-out programs, dedicated to the sport of Dragon Boat.

## Our Statements

### **Purpose**

To utilize the sport as a means to foster collective and individual growth, both on and off the water.

### **Vision: “Less is More”**

We are committed to achieving more with less, striving for efficient training through effective methods to consistently deliver high-performing results. With A Division in our sights, we approach training with a mindset focused on quality over quantity.

We aim to complete race distances in the shortest time possible, emphasizing the concept that less time spent on the water can yield greater results. Additionally, as a team, we strive for efficiency in our inputs to maximize outputs. Because lower input + higher output = efficiency

**Inclusivity:** We value every team member equally, irrespective of performance, contribution, demographics, or gender. Each member is treated with the utmost respect and provided with the necessary tools to excel based on their individual needs.

## Teams/Programs in brief

Our team accommodates all individuals with diverse paddling goals. From competitive, to intermediate, to casual & social, our team has a space for everyone.

### **Masters Crew (Competitive)**

Competes at the highest levels with a minimum commitment of two on-water practices per week. The selection process takes place in the weeks leading up to water season.

### **Performance Crew**

Offers a more developmental training environment with a minimum commitment of once-weekly on-water sessions, focused on fun and skill improvement.

### **Future Teams/Upcoming Programs**

Our programs are aligned with the [Long-Term Athlete Development model](#), providing a clear pathway to enhanced sport performance, better health, and greater achievement at all life stages.

Our future goals include an under 18 boat, a highly competitive premier boat, and an additional performance boat..

### **History of the Team**

- o 2006: Water Vipers was founded by Diane Tam and Joseph Vinluan, graduates of the University of Toronto Scarborough Dragon Boat Team that Andrew Liew started
- o 2008: Andrew graduated
- o 2009: Andrew took over the team as the founders moved
- o 2015: won our first regatta at St. Catherines
- o 2017: formalized our mission, vision, purpose, and values that continue to guide our club
- o 2018: winners of the Chicago International Dragon Boat Festival

- o 2018: highest ever placing at Toronto International Dragon Boat Race Festival of 10<sup>th</sup> place
- o 2019: winners of the Woodstock Rotary Dragon Boat Festival, went 2 minutes flat 2:00.84 twice this season on two different race courses
- o 2019: almost competed in the Hong Kong Dragon Boat carnival, regatta canceled due to the protests and while we did win an informal event held, it was a feat in of itself for the team to organize logistics and travel together off continent and create so many amazing memories together
- o 2023: kick-started the LTT (Learn To Train, now called Performance) program, growing the team beyond 1 crew!
- o 2024: We became GWN Challenge Champions
- o 2025: Competed in the Hong Kong Dragon Boat Carnival & Winners of the Woodstock Rotary Dragonboat Race Festival
- o 2026: Growing the team to 4 boats for the first time!
- o Since then, the team continues to grow in skill and organization

## Our Programs

### Masters (Competitive Crew)

- **Program goals:** To be the fastest twice a week paddling team in Toronto
  - o Most dragon boat teams are grouped by those paddling less than 3 times a week and those who paddle 3+ times a week.
  - o The Masters crew focus on applying our values of efficiency and purpose to beat teams who paddle less than 3 times a week (approximately 90% of Canadian teams) and nip at teams who paddle more than 3 times a week
  - o This program is open to anyone looking for increased levels of competition
- **Equipment:** Carbon fiber paddle and PFD required before water season begins, see [Equipment](#)
- **Season Overview:**
  - o Find Masters Calendar [here](#)
  - o Off season (Oct to Apr):

- i. Indoor strength & conditioning team training: weekly Saturday practices from 7:15am to 9:30am held at Afterburn Fitness
  - ii. Expectation to also continue the program on your own throughout the week
- o On season (April to Sept):
  - i. On-water Dragon Boat training: twice a week Wednesday evenings 7:15pm to 8:45pm and Saturday mornings at 10:15am to 11:45am
  - ii. Additional training on Outrigger Canoes are strongly recommended: Mondays and/or Thursdays, start times vary from 5:15pm to 7:40pm depending on availability. See [Outrigger Canoe Program](#)
  - iii. Bootcamp: there will be a 3 hour bootcamp with the coaches to review technique and build individual focuses. This takes place on May 5 2026 7:00 am - 3:00 pm at Sunnyside Paddling Club.
- o Regattas

|                 |                                     |
|-----------------|-------------------------------------|
| May 24          | Milton Dragon Boat Festival         |
| June 13-14      | Toronto Island Dragon Boat Festival |
| July 17-20      | Montreal                            |
| August 8        | Woodstock                           |
| September 12-13 | GWN Challenge                       |

- **Accountability**

- o Strength and Energy systems testing
  - i. Every 3-4 weeks during off season
  - ii. Testing components vary depending on the phase of training. Strength testing comprises 3-5 rep max weight tests of certain exercises. Speed and endurance tests max rep within a certain time at a user defined weight.
- o Outrigger canoe testing

- i. Generally 1-2 weeks before each major regatta to determine our roster
  - ii. 150M, 300M, and 1200M timed trials testing on individual OC1s
- **Team qualification**
  - 26 paddlers of 13 females and 13 males
  - **Open Tryouts:** open to everyone, please indicate interest and we will provide continuous feedback throughout the off-season.
  - **Criteria for Cuts:** Performance, fit within the team culture, and attendance are the primary factors considered for cuts.
  - **Lineup Determination:** Lineups for the on-water season are determined through paddling tests and in-boat observations by coaches, both within the team and after cuts have been made.

## Performance (Club Crew)

- **Program goals:** Fastest 1-2 times a week paddling team in Toronto
  - The performance crew will focus on applying our values of efficiency and purpose to aim to be the best of those paddling once a week (approximately 70% of Canadian teams)
  - This program is open to everyone
- **Equipment:** No mandatory equipment but highly recommend a paddle and PFD if you see yourself in the sport for longer than a year. See [Equipment](#)
- **Season Overview:**
  - Find Performance crew calendar [here](#)
  - Off-season is recommended but optional
  - On-season (Apr to Sep):
    - i. Weekly pool room paddling sessions focused on building technique
    - ii. On water Dragon Boat training: Wednesdays at 7:30pm and Saturdays at 8:30am
    - iii. Training on Outrigger Canoes: join the Masters on Mondays, see more under [OC Program](#). Optional but highly recommended! (Melissa: OCs are fun and is a great way to pick up technique **fast**)

- iv. Bootcamp: time and date April 4 2026, details to come in WhatsApp group
- v. Regattas

|            |                                     |
|------------|-------------------------------------|
| May 24     | Milton Dragon Boat Festival         |
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| August 8   | Woodstock                           |
| Sept 12-13 | GWN Challenge                       |

- **Accountability**

- o On-water outrigger canoe testing
  - i. 330M in 2-person Outrigger canoes (OC2)
  - ii. These tests are generally 1-2 weeks before/after major regattas

- **Team qualification**

- o Anyone can join
- o lineups within the on-water season may be determined by on-water tests

## Regattas

### What's a regatta?

Dragon boat race events, usually in the form of a festival that spans 1-2 days, generally on weekends. They are typically held in public parks next to large bodies of water and accommodate many teams at a time. Some larger festivals will have merch booths, activities, and food trucks. There will always be washroom facilities available in public buildings or portable toilets.

## What are regattas like?

The actual racing generally takes place between 8:30 am and 4:00 pm. Depending on your crew's first race time, we set an arrival time 90 minutes before the scheduled race time, with specific details provided closer to the event dates. This gives time for people to settle down, set up your camp spot, get into your race mindset, warm up, and debrief. You can stay up to date with live results posted by event organizers.

Rosters or boat lineups are normally provided and tested in the practices leading up to the race. Where people sit, who sits off – these are decisions determined by the goals of the teams. With the Masters crew, we prioritize performance. Our Performance crew values equality, attendance, and attitude. Additionally, the boat must be balanced left to right and front to back. It is very important to attend the practice before the race so that we can test, especially for weight balance. You may also be weighed before practice, your weight will only be shared amongst the captains and organizing crew.

## How do we pick our regattas?

There is a methodical process that considers various factors, including the team's goals, timing of the event, value for money, and overall contribution to the club experience. Do we learn from other competitors? What is the race site like? Does it provide opportunities to build our social network and team cohesion? For example, the Performance crew generally attends the Milton festival every year because it offers several advantages. It tends to be more cost-effective compared to other regattas, thus reducing the financial barrier-to-entry into the sport. Additionally, the competition field is smaller, allowing the team to achieve better placements and boost confidence, resulting in an overall enhanced experience, not to mention it presents an opportunity to win hardware. We also always plan for at least one out-of-town regatta every season. In the past, we've traveled to Chicago, Vancouver, and Hong Kong.

First time attending a dragon boat regatta? Forgetting stuff and need a to-bring checklist? Check out our [Quick Guide to Race Day Prep](#) to help prepare you for the big day!

## Previously Attended Regattas

### [Milton Dragon Boat Festival](#)

- o May, Milton, 1 day
- o Historical opener for the season
- o Affordable and small, allowing us to test out our race strategy and practice racing in a lower pressure environment in preparation for our apex regatta in June
- o Our tradition after the festival is to get sushi at Heart Sushi in Mississauga right after (to you know, carb load)
- o Our highest finish is 2<sup>nd</sup> overall

### [Pickering Dragon Boat Festival](#)

- o June, Pickering, 2 days
- o A fairly competitive regatta bringing teams from across eastern Canada
- o Starting 2024, it has split competitive levels by day, with the rec division on Saturday and the sport division on Sunday

### [Toronto International Dragon Boat Festival](#) (TIDBRF)

- o June, Toronto Centre Island, 2 days
- o The OG of all dragon boat festivals in Eastern Canada, it has diminished in size in recent decades but is still a very historic and large apex regatta

- o It is held on Centre Island where you have to take a ferry to get to. Be mindful that it gets very busy, especially on the way back, as it is typically full
- o This regatta is a real test for the team as there are over a hundred teams participating so the team will quickly understand where they stand among all teams in Ontario
- o Our highest finish here is 10<sup>th</sup> overall

#### [Concord Pacific Dragon Boat Festival](#)

- o June, Vancouver, 2 days
- o Biggest regatta in Canada with the highest budget, sponsored by Concord
- o The media coverage, sponsorships, boats, and facilities are all extremely professional and well organized, making it a fun and worthwhile experience
- o Many of us have gone to Vancouver multiple times and there is an endless amount of things to eat/do/explore/hike/climb. Not a dull moment here!
- o Ideal arrival is 2 days in advance for practices. There are practices on the race course the Friday before the regatta. Highly recommended to attend because paddling in saltwater feels different from freshwater
- o We also usually stay for at least a day or two after to explore the city
- o We've joined up with other teams in the past to attend and went exclusively as a team in 2022, finishing in the top 8

#### [Canam Dragon Boat Festival](#) (Masters-only)

- o August, City of event changes per year, 4 day event
- o Typically the national championship. But every other year is vastly more important to the most competitive teams in the country because they use it as a qualifier to go to the Club Crew World Championships (CCWC) in the following year which happens on alternating years. Last CCWC was in 2024, so teams had to qualify through our national championships in 2023. Since 2024 is not a qualifying year for CCWC, many teams may not show up, especially those traveling long distances. To boost the

number of teams participating, our national sport organization has teamed up with the American equivalent to bring in more teams

### GWN Sport

- o July, Toronto (Marilyn Bell Park), 1 day
- o Smaller regatta like Milton
- o Allows for one last tune up before the final regatta of the year and also a good chance at hardware given the reduced competition

### GWN Challenge

- o September, Toronto (Marilyn Bell Park), 2 days
- o Historically the season ender for Water Vipers
- o Medium size regatta and allows us to show what we've learned throughout the season!
- o Champions of 2024 (peep the giant statue at Afterburn!!!)

## Paddling Bootcamp

A paddling bootcamp is an extended practice session that includes video review, typically conducted earlier in the season. Video review offers a unique opportunity to assess individual and team paddling techniques. Often, individuals are unaware of their paddling style until they see themselves in video, especially in slow motion.

### **Expectations:**

The session typically lasts for 4 hours. Participants should bring snacks, warm drinks, and ample warm gear for the break and video review session. See below for a typical schedule:

|                                  |
|----------------------------------|
| 15 minutes: Warm-up and briefing |
|----------------------------------|

|                              |
|------------------------------|
| 1 hour: Paddling session     |
| 15 minutes: Break            |
| 45 minutes: Video review     |
| 45 minutes: Paddling session |

## Practice Locations

### Afterburn

Owned by Andrew, stands as Ontario's most comprehensive indoor dragon boat training gym.

- **Facilities:** the gym features specialty equipment tailored for dragon boat training, including an indoor paddling pool with seating for up to 22 people, paddle ergometers, and specialized strength equipment designed specifically for paddling.
- **Training Schedule:** our team begins training at Afterburn in mid to late October, continuing through until the end of April.
- **Things to bring for practice:**
  - o Change of clothes
  - o Athletic attire
  - o Towel
  - o Water bottle
  - o CLEAN indoor athletic shoes
- [Visit the Afterburn website for more info](#)
- **Address:** 1-230 Nantucket Blvd, Toronto, ON, M1P 2N9

## Sunnyside Paddling Club

- **Facilities:**

- The change rooms/indoor space are shared with and maintained by the City of Toronto pool. If you have any issues with this space, let us know but know that it may be out of our control
- Small lockers are available for use, either operated with quarters or by bringing your own lock. These lockers are suitable for backpack storage but may not accommodate shoes. Be mindful that of the 430 lockers in each gender's changeroom, 25% don't work, 12% are bring your own lock, and the remainder are coin operated
- Be cautious with leaving shoes unattended, as they have been known to be unintentionally taken or stolen. We strongly recommend storing valuables with a fellow team member or in a secure location, such as a vehicle.
- Remember to lock your car and keep valuables out of sight. Parking is paid whenever parking meters are present, although free parking is available about a 10-minute walk north. As of 2022, parking rates were \$1 per half-hour with a max. of \$5 on weekdays and \$9 on weekends.
- Allow for a minimum buffer time of 15-30 minutes to find parking, dock your bike, or navigate through traffic.
- Paddles and life jackets are provided for use

- **Additional Guidelines:** Upon entering the pavilion, please remove as much sand as possible from your feet or footwear. We recommend stomping your feet a few times before entering through the chain-linked fence.

- Follow SPC's [Instagram](#) for more information on practice cancellations

- **Address:** 1755 Lake Shore Blvd W, Toronto, ON M6S 5A3

- located directly on the Sunnyside boardwalk (south side of big white building, in between Sunnyside Pavilion Cafe and the lifeguard station GPS

Coordinates [here](#)

## Cherry Beach

Outrigger canoe sessions are sometimes held at [Cherry Beach](#). Look for OCs at the east end of the parking lot. Other times, OC sessions will be run at Sunnyside Paddling Club

- Washrooms and change rooms are located near the roundabout, we recommend arriving changed under your normal clothes.
- Cherry Beach is somewhat TTC accessible, but is infrequent and semi-unreliable, or maybe thats just the entire system
- If using public transit or rideshare services, please leave your belongings with another member's vehicle. Do not bring valuables with you onto the OC.
- **Punctuality is crucial. Time slots are limited, and sessions start promptly. Late arrival may result in missing the opportunity to paddle or disrupting the session for others as the coach may need to accommodate your late arrival.**

## Equipment

### Paddles

For the competitive athlete, having your own paddle is a must. Regattas and clubs do not always provide good quality paddles and/or you may not find your size. It is one variable that you do not want to be scrambling for when you are about to get on the boat to race. Not having a paddle and scrambling for one at marshaling time will not be appreciated by fellow teammates.

### Anatomy of a paddle

Blade, Shaft, Handle, Tip

## Choosing a paddle

Consider various factors such as stroke style, stroke rate, body proportions, flexibility, and strength when selecting a paddle. Always test out a length before you commit to a purchase to ensure you have the right paddle for you.

- **Fixed vs Adjustable**

- **Adjustable paddles:** has a mechanism to adjust shaft length and secure handle.
  - Pros: can experiment with different lengths and understand the required length for different situations.
  - Cons: a concern with the adjustment mechanism failing from wear and tear or just quality, slightly heavier than fixed-length
- **Fixed-length paddles:** no adjustments.
  - Pros: lighter, less prone to moving part failure
  - Cons: As you progress in your paddle career and encounter different scenarios, you may find having multiple fixed length paddles for different situations is preferable over having a single adjustable paddle.

- **Wood vs Carbon**

- **Wooden paddles:** affordable, durable, and repairable. Great for beginners. We strongly recommend using SPC's wooden paddles if you are a beginner or if you know you're seated near beginners. Paddle smacking occurs and we have seen carbon fiber paddles come out of practice with a brand new chip, puncture or scratch.
- **Carbon Fiber paddles:** lighter and offer excellent performance. The paddler's choice. Super light, reduces workload and strain on certain muscle groups. They have a sharper blade tip, providing a smoother entrance into the water with little splash even for the newest paddlers. Think cannonball versus proper diving into a body of water. Be mindful that the thin blade and lightweightness also comes with fragility.

- **Flex:** A paddle can vary in flex, much like a golf club or a hockey stick. Flex affects strain on muscles and energy transfer, where more flex can reduce strain and soften the initial pull but can also result in more energy loss. Manufacturers may tell you how flexible their paddles are, but often without any quantitative measure. Best bet is to try it out yourself.
- **Balance:** Different paddles have different weight distributions across the blade to the handle. Entirely up to the paddler's preference.
- **Handle type:** Handles generally come in either a palm grip or T-grip. Some find a palm grip more forgiving on their palm with its roundedness; others prefer the traditional T-grip albeit a sharper edge that can chafe the palm of your hand.
- **Shaft diameter and shape:** Some paddle shafts have more girth, others less. You will also see rounded versus more oval profiles. Comfort is key when choosing shaft diameter and shape.
- **Blade Shape:** The general shape of the blade is regulated by the sporting organization and cannot be changed except for the middle spine, which is usually a flat profile or a dihedral. The dihedral allows the blade to track straighter on the pull, less wobbling, and move through water quicker. Think axe versus hammer to split a piece of wood. Though, the dihedral does not hold or catch water as well as the flat profile, decreasing stroke efficiency.
- **Length:** Paddle lengths are regulated to be no longer than 51 inch paddles. There are multiple factors affecting what length you should use. At a glimpse:
  - **Height:** when you first started, you were probably handed a paddle based on your height. See below for a general body to paddle length ratio:
    - 5'2": 45/46
    - 5'4": 47/48
    - 5'6": 48/49

- 5'8": 49/50
- 5'9" and taller: 50/51
- **Flexibility:** more hip flexibility gives the paddler more rotation and hinge. A recommended way to gauge a good paddle length for your height is to sit in the boat and go into your catch position. You want to observe that your blade is fully buried without overreaching or compromising posture.
- **Strength:** the stronger you are relative to your teammates, the more resistance you can handle at the same given stroke rate. In that case, a longer paddle and higher choke on the shaft of the paddle may benefit you.
- **Stroke Style:** how paddlers take their stroke can differ not just between teams, but can also between countries. For example, west coast paddlers tend to hinge more at the hips than to rotate. This leads to the use of a shorter paddle with the extended hip reach. Similarly, if you find you have greater hip flexibility where you can hinge forward more and bring your upper torso closer to the water, then consider a shorter paddle.
- **Stroke Rate:** the higher the stroke rate is and outside your comfort zone, the more advantageous a shorter paddle would be. Similarly, a shorter paddle with the same 60° angle between your arms will lead to more leverage as your bottom arm is closer to the blade of the paddle, allowing you to keep up with the stroke rate.
- **Position in boat:** with the dragon boat itself being concave (and assuming the boat is well balanced front and back), paddlers seated at the front and rear will be slightly elevated higher off the water versus those who are seated in the middle

Some manufacturer suggestions:

[Afterburn](#) (Yes- Andrew owns this gym) value oriented paddles

[Burnwater](#) (Contact Danny Hayek, [danny.hayek@gmail.com](mailto:danny.hayek@gmail.com) and tell them Andrew from Water Vipers referred you): Expensive but very nice and arguably best quality

[Chinook](#): (also tell them Andrew from Water Vipers referred you) Value priced

[Hornet](#): Don't have a contact but they are normally at the regattas we go to

If you are on a budget, our teammates may offer to sell a used one to you. There is always a market for buying and selling used paddles.

## Neoprene Gear

Neoprene is a synthetic rubber material excellent for heat insulation. We highly recommend this for the colder practices.

- **Neoprene for the core:** shorts and a vest is mandatory for Outrigger Canoeing between May and June due to the low water temperature, which typically sits around 8°C regardless of air temperature. Failure to wear neoprene can result in your body freezing up and potentially lead to drowning, regardless of swimming ability. Keeping your core warm with neoprene provides crucial time to regain control, swim to shore, or receive assistance.
  - [See here to learn more about coldwater safety](#)
- **Neoprene boots:** boots that cover just above the ankle are recommended for comfort. In dragon boat paddling, water often accumulates in channels on the floor, resulting in at least one foot being partially submerged in cold water during the early season. Alternatively, neoprene socks worn with sandals can also provide protection.
- **Neoprene gloves:** great for insulating hands from cold water in earlier months. However, some paddlers may find that gloves degrade grip and blade feel. If your hand is numb and you're unable to grip the paddle without gloves, it's advisable to use them.
- Neoprene gear can be purchased at outdoor retail stores such as Sail, Canadian Tire, MEC, as well as online retailers like Amazon or TEMU.

## Clothing

### Practice Gear

Your choice of clothing is crucial for safety, comfort, and can impact the effectiveness of your coach's training program.

- **Safety and Comfort:** Inadequate clothing can lead to discomfort, shivering, and potential interruptions to the training session if the coach needs to address the team's condition. At the beginning of the year, technique is a major focus and technical pieces will require long breaks for correction and discussion.
- **Layering:** Layering allows you to adjust your clothing according to your comfort level. Be prepared to add or remove layers as needed.
- **Clothing considerations:** With the exception of rainwear, ensure your clothes allow for stretching, movement, and breathability.

### Cold weather recommendations

- Top:
  - o 3MM Neoprene core layer (shorts and short sleeve top)
  - o Cotton or dri-fit T-shirt or long sleeve moisture-wicking base layer
  - o Thicker insulating layer
  - o Rain jacket
  - o Bucket hat with a neck strap for rain shedding and sun protection
  - o Snow or running thin beanie or neoprene cap for colder weather
- Bottom:
  - o Neoprene core layer
  - o Moisture-wicking insulating base layer
  - o Thicker insulating layer
  - o Rain Pants
- Shoes

- o Wear footwear you don't mind getting wet because Lake Ontario water can cause your clothes to smell :) If you do wear shoes you like, then make sure they are rinsed and properly dried.

### What NOT to Wear

- Jeans (prone to becoming wet and uncomfortable)
- Thick down jackets (not suitable for physical activity and can be cumbersome)
- Sweatpants and other thick cottons (can become wet and soggy easily)
- Winter boots (too bulky)
- Leather (What do you mean I can't wear my leather jacket to a water sport?)

### Post-Practice Care Instructions

- ***Do not leave wet gear in your car, someone else's car, or in your bag.*** Dry and hang them immediately to prevent unpleasant odors. (again, lake Ontario water)
- Pro Tip: drying your wet footwear under the sun after a good rinse is a good way to kill lake water bacteria and get rid of the smell

### Personal Flotation Devices (PFDs)

- PFDs come in two forms: a belt form or in a life jacket form. For life jackets, we recommend one specifically designed for paddling or kayaking as these allow for greater range of motion at the hips and shoulders.
- One-size-fits all life jackets are provided at races and by the paddling club; however, these may not be optimal for your body, affecting comfort and performance. Additionally, these provided life jackets may not be in the best condition and could have odors. It's advisable to consider purchasing your own life jacket, especially if you're on the competitive team.
- A common accidental purchase is a Seadoo or motorized craft lifejacket, please don't buy those. Consult store staff to ensure proper fit when purchasing a PFD.
- Some common models
  - o [MEC Fulcrum PFD - Unisex](#)

- o [Salus Eddy PFD](#)
  - o [Onyx Movevent](#)
- [See here for more information on picking the right PFD](#)

## Water Bag

In the event that you get very wet or worse, capsizing, your personal belongings such as car keys or your cellphone could become soaked or submerged. Please note that the club is not liable for any lost or damaged items under such circumstances. To mitigate this risk, we recommend storing your valuables in a waterproof bag or leave them securely stored in your vehicle.

This precaution ensures that your belongings remain protected from water damage and reduces the risk of loss or damage during water activities.

# Outrigger Canoe (OC) Program

## Purpose

Outrigger Canoes have historical significance, traditionally used by Polynesian indigenous people for oceanic travel and fishing. Their incorporation of a thin main hull and smaller pontoon-like hull provides both the ability to go fast and with increased stability from the pontoon.

Today, we utilize them for individual training and testing, offering opportunities to adjust technique, assess boat speed impact, and compete head-to-head—an advantage over the obscured performance visibility in larger group settings of the dragon boat.

## Components of an OC

- **Main hull:** central hull of the canoe
- **Rudder:** functions only when the canoe is in motion. To maneuver while not moving, use sweeping, reverse, and drawing strokes.
  - Fun fact: you may occasionally spot a rudderless OC in the wild waters of Canada.
- **Ama:** small pontoon providing stability
- **iakoo:** holds the main hull to the ama. These metal poles are specific to each boat and are inserted in a specific direction in a certain order. Check with the leader in charge before you begin building your boat.
- **Pedals/Stick Steering:** some OCs have pedals, others have a joystick at your feet to steer with. Press the pedal on the side you want to steer towards or nudge the stick in the direction you want to steer to with your toes.
  - Note: For pedal steering, you may not be able to wear thick shoes or boots as the feet cavity is small. Be careful not to press both pedals down at the same time or you will break the rope or rudder.

- **Seat:** Adjustable; ensure it's in a good spot before leaving from shore. Remember, you should be able to rotate at the hips while having your knees below your hips
- **Drain Plugs:** cover holes in the ama and main hull to allow water drainage; make sure electrical tape or drain plugs cover the holes before disembarking

## Practices

Practices typically last 60 minutes, on top of setup time to retrieve the boats from either a trailer or storage yard, assemble and then do the reverse at the end of practice, bringing the total time to about 1.5 hours. OC practices are structured similarly to dragon boat sessions with warm-up, technical focus, ESD (energy systems development), and cooldown.

## Requirements

- In water temperatures below 8°C, participants must wear:
  - o 3MM Neoprene vest and shorts
  - o Full non-inflatable PFD
- Participants must also be comfortable in water while wearing a PFD
- Full details of requirements are located on the Sunnyside Paddling Club website [here](#)

## Huli'ing

There is a much higher risk of flipping and falling into the water (aka huli) with an OC. For this reason, all participants must pass a Huli test before getting on the water. The test involves controlled capsizing and recovery procedures and is offered indoors at controlled pool environments.

If you do not attend and you are not exempted, you will need to do it in the lake, which could be quite cold. This needs to be completed before your first practice with the team. Please ask an exec for more details.

## Huli Test Requirements/ Procedure

- Fall into water by leaning forward and to the side away from the ama

- o Lean forward to reduce the risk of getting hit in the head with the ama or iakos
  - o Once entering the water keep your head under water for at least 1 second to allow the ama or iako to hit the water first and not your bobbing head
  - o Do not lose your paddle
- Once floating orient the boat with the nose or tail oriented towards the waves if warranted
- The boat should be upside down with you in between the ama and the main hull
- Swim to the opposite side, jump kick to grab the side of the cockpit and use your body weight to turn the boat right side up
- Then use whatever means necessary to get back into the cockpit while keeping your bodyweight on the ama side to avoid re-flipping the boat
  - o Recommended to use the same technique as you would to get out of a pool
- Requirements
  - o re-mount the boat within 2 minutes of falling in
  - o do not lose your paddle
  - o do not get hit in the head with either the iako or ama

[Sample](#) – also shows what happens when you don't keep your weight on the ama side when re-mounting

## Testing

- Testing involves 1-3 distances that mimic the average time for our boat to complete the distances we race in. For example, a 200M race takes roughly a minute for us to complete. Similarly, a 500M race in 2m15s, and 2000M race in 9 to 10 minutes. The corresponding distances we use for the OC test are: 120M, 330M, and 1200M
  - o For 2025 after Milton almost all races are 500M so testing will be a 330M distance

- Each individual in a heat (or by themselves) will complete the above distances for time and is given a single attempt
- Results will be compared across the entire team, by weight class and by paddling side
- This is mandatory for the Masters crew and is completed on a single person outrigger canoe (OC1)
  - o Performance crews can test on OC2's to give us a more pure paddling fitness result. Specifically, outrigger canoe requires some specific skill sets such as steering and balancing, with an OC2 there is a steers person that will help balance and steer
  - o OC1 is still the preferred testing method as OC1 will provide better feedback on your stroke for performance improvement and is more widely available, so we test on it to encourage paddling more on it
  - o Paddles can test on both OC1 and OC2 if they wish
- All club members are encouraged to participate
- 2025 Testing Logistics
  - o Typical schedule below:
    - May 31st Setup/Arrival 630 AM, Testing Start 7:00 AM
    - May 28 6:30 to 7:30 PM early testing for those going to HK or those that cannot make the 31st
  - o Measurement: Speedcoach/ crewnerd
  - o A single athlete will marshall to the start and go as soon as ready
  - o There will be 2-4 volunteer start and finish lines volunteers each with a synchronized start watch on their phones
  - o As soon as the result athlete goes the start judge will press lap on their phone locking in the start time

- o As soon as the athlete finishes the finish line judge will press lap again, locking in the end time
- o The start and end time will be entered into a spreadsheet which will calculate the total race-time
- o Race-Course: Marshalling at Sunnyside Beach (which is 500M west of where we practice)



## OC Practices for 2026

- **Schedule:** Two time slots (maximum 10 people per time slot)
  - 6:10 - 7:25 PM
  - 7:25 - 8:40 PM
- **Capacity:** eight OC1's and two OC2's
- **Cost:** \$18 per session for drop-in
- **Coaching:** Shan on Mondays, self group run on Thursdays
- **Club OC Tests:** See team calendar or attendance app for OC testing schedule
  - o Masters: testing with OC1, testing cost is included in team fees
  - o Performance crew: testing with OC1



## Off-season Program

Our off-season program runs from October to April, starting with the master's program and open to all members. Held at Afterburn fitness once a week on Saturday mornings, sessions last about 2.5 hours and consist of strength and conditioning training, alongside either rowing, paddle erg, or paddle pool training.

### Strength & Conditioning Program

- Designed by Khanh, a former paddler and professional athletic therapist, strength and conditioning coach, and personal trainer.
- The program begins with a focus on general rehab and proper movements, gradually increasing in intensity, complexity, and sport specificity as the on-water season approaches.
- There are typically 4-5 phases each lasting 3-4 weeks and focusing on a particular attribute to make a good paddler
  - For example speed, power and strength, aerobic, anaerobic and lactic acid systems
- Exercises are also prescribed to be completed throughout the week, recommending at least 3-4 sessions of individual time.
- Provides a unique advantage for the club, keeping members connected and active year-round.

### Cardio tools/implements

There are multiple components that collectively ensure a comprehensive off-season training program, enhancing performance and readiness for the upcoming on-water season.

## Paddle Pool

- Afterburn's unique paddle pool was specifically designed for dragon boat training in Toronto. It offers off-season water training, focusing on technique and conditioning. Read more about it [here](#).

## Rowing

- Although rowing is different from paddling, we row as soon as the water season ends to rebalance the body and provide energy systems development.
- The Concept 2 rowing ergometer is preferred for its standardization and widespread availability in most gyms.
- A great resource: [Dark Horse Rowing](#)

## Paddle Erg

- We use the Kayakpro Dragon Boat Paddle Ergometer as we approach water season for its sport-specificity. It is the closest thing to paddling out of the water.
- Provides quantitative feedback on output performance, but has a significantly higher resistance than actual water. Good for learning the movement, but you have a risk of building undesirable technical habits and higher risk of injury especially for those with less strength.
- We recognize that accessing paddle ergs is difficult as they are not readily available, but for masters' athletes it is a component of testing since it is the most sport specific. If really not available then supplementing by doing the ESD work on the rower would be your best bet with the most translation on to the paddle erg and paddling in general
- To access them there are two major options:
  - Afterburn
    - Buy a membership or pay the drop-in
    - If dropping in somewhat frequently then buy a pass card and staff can activate it on the day you need it with 24 hours notice

- If dropping in more than 3 times a month then a membership might be your best bet
- More information on the above is available [here](#)
- Some ideas for our team to make best use of your time
  - Before our practice for 15-20 mins to practice technique (Andrew will be there and can open the door, DM him to let him know)
  - After practice, follow drop in or membership procedures above
  - Check the afterburn schedule [here](#)
  - Sundays especially in the morning to avoid traffic.. Sundays before 10am is an amazing time for traffic to afterburn
  - Weekdays after 6pm can be pretty intimidating as the room gets packed.
- Alkame in Pickering
  - <https://www.alkame.ca/indoor/training>
- Toronto Panam Sports Centre
  - <https://www.tpasc.ca/>

## Injury Protocol

The Dragon Boat paddling technique consists of trunk flexion and rotation followed by trunk extension and derotation along with overhead shoulder abduction/extension and shoulder flexion/ extension of the opposite arm. Further to load this motion the stroke occurs on 1 side of the body. The sport demands repetitive motion of the above movements making it

especially vulnerable to musculoskeletal overuse injuries. The WV Strength and Conditioning Program addresses injuries through 3 objectives:

1. Prevent Injuries during the training process
2. Reduce the incidence of performance-related injury
3. Improve performance

#### Prevent Injuries During the Training Process

Every exercise down to the sets and reps in each phase of the program has been chosen based on a risk-to-benefit ratio. However we can't completely eliminate all risk, only minimize it. Is the benefit of the exercise worth the risk inherent in it? This ratio of risk-to-benefit changes with age and level of experience in the gym. As a result, the Strength Programs can change based on the paddlers coming in each year. For example general exercises like squats, deadlifts are excellent choices for everyone but Olympic lifts are not. A 20 year old is different from a 35 year old. One size does not fit all and neither does one exercise. We don't do Olympic Lifts because it is very technical and it is a sport in itself.

We use periodization to minimize injuries. Periodization is a method used in Strength and Conditioning to bring about peak performance while reducing injuries and overtraining. It is a series of progressively changing volume, intensities and non-sport exercises to sport sport-specific exercises throughout the off season.

#### Reduce the incidence of performance-related injury

No coach or program can prevent injury, Injuries will happen. The goal then is to minimize performance related injuries to keep the athletes competing consistently throughout their season. Every strength session starts with Prehab. Prehab consists of soft tissue release, dynamic stretching and muscle activation. Prehab will help address concerns related to the common injuries found in Dragon Boating. A study of 95 paddlers concluded the top 3 common injuries in Dragon Boat were the following below (Mukherjee & Foo, OJSM, 2015). 99% of these injuries occurred during in season training on the water. Lower back/ SI (22%) 2: Shoulders (21%)3. Wrist (18%)

To address low back/SI dysfunctions one of the first movement patterns we teach is the hip hinge and rotation through the hips. The hip hinge ensures trunk flexion is performed through the hip joint (femur and pelvis) versus the lumbar vertebrae (low back). Excessive trunk flexion through the vertebrae over time can cause impingement in and around the vertebral disc. The waiter's bow is an excellent exercise we use to teach trunk flexion from the hips. Rotation is a basic movement pattern that needs to be trained so that other joints do not uptake the forces. If other joints are allowed to uptake the forces these joints overtime will cause injuries and dysfunctions.

Force production needs to happen through use of the hips and stabilizing the SI Joint/Lower back. This movement will be taught and practiced throughout the program.

To minimize shoulder injuries the strength program addresses the rotator cuff through the use of low level threshold to high threshold exercises. The rotator cuff consists of 4 muscles: Supraspinatus, Infraspinatus, Teres Minor and Subscapularis. Due to the nature of stroke the top arm raises over head (shoulder flexion) repetitively, imbalances can occur causing rotator cuff strains leading to neural activation imbalances.

The program uses a variation of Dumbbells, Kettlebells and unilateral exercises to address shoulder stability and wrist strength. Every session should start with Prehab, a combination of soft tissue preparation and muscle activation. More specifically, for the shoulders perform soft tissue work on the pectoralis muscle, supraspinatus/infraspinatus muscle (located above and below the shoulder blade. Exercises such as Y,T,Ws (prone, standing) to Turkish get ups directly target the rotator cuff. These exercises need to be performed on a daily/weekly basis to ensure muscle balance among the other shoulder muscles.

Improve Performance

Improving performance should be second to injury reduction. If you unfortunately do get injured, you take time away from your sport which is why we put performance goals second to injury prevention.

To improve performance we use the following rules in Strength Training

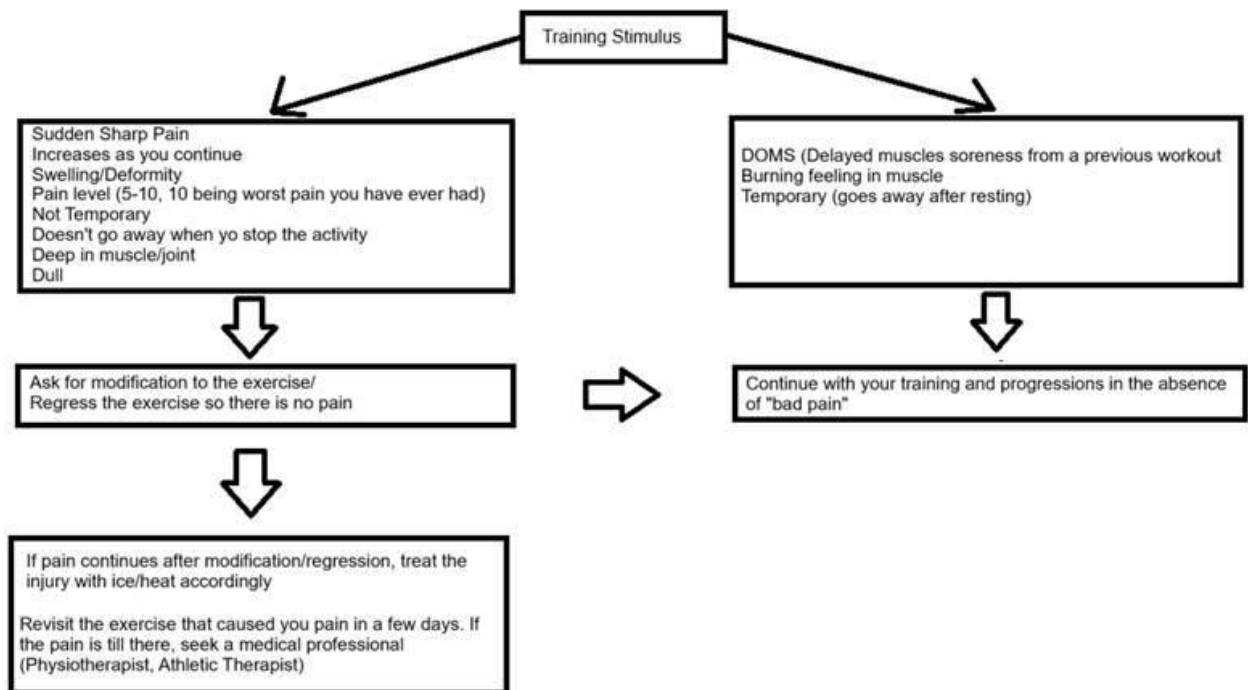
- Train Fundamental Movement Patterns
- Explosive Movements First
- Multi-Joint Exercises Second
- Use of Tempo training (contraction type)
- Single Joint Exercises Last/Or not at all
- Limit Machine Use

Good Pain vs. Bad Pain

"Take risks" or "lay it on the line" are phrases and things that we don't condone and want to do.

Pain/Stress is required in any strength and conditioning program. It stimulates the body's adaptation system allowing for higher capacity (increased strength, power, endurance). This is a result of good pain. We want to elicit just enough good pain and with proper rest the body is able to adapt with increased capacity/capability of that system. However sometimes good pain can lead to "bad pain" if you do not allow for proper progression or rest. Below is an

infographic helping you decide what to do when you experience discomfort after a training set/bout.



When you do experience "bad pain" the first thing to do is always stop the activity/exercise that is causing the "bad pain" or issue. Identify between good and bad pain using the above infographic. Don't push through the pain, you will only make the injury worse. Seek medical assistance if severe enough (ie. bleeding that won't stop/bruising/rapid swelling/unable to move).

Regression refers to selecting a less complicated exercise using the same movement pattern. Progression is the opposite; it involves selecting an exercise of a similar movement

pattern with a higher technical degree. We use progressions and regressions to help the athlete attain goals and to minimize injury.

If modification of the exercise does not help and you are not able to finish the workout, cease the session and try to determine the mechanism of injury. What activity, movement, position, weight causes the pain? In general try to determine the following things below if you can.

P (Provocation): What triggers the pain or makes it better?

Q (Quality): What is the quality of the pain? (sharp, dull, throbbing)

R (Region): Where is the pain located? Can you point using 1 finger

S (Severity): What intensity is the pain? From 1-10 (1 -minimal pain, 10 -maximal pain)

T (Timing): When does the pain occur and how long does it last

When trying to determine the mechanism of injury try not to make the injury worse by constantly trying to test the tissue. Don't test the injury everyday, leave as be unless you have sought instructions from a medical professional.

Once you have stopped the activity and you are still experiencing pain (medium to high) use ice to help with the pain. The ice will block the pain receptors. Treatment of ice is the following below;

1. Apply ice to the affected area for 10-20 minutes,
2. Ensure a towel is put between the layer of the skin and the ice. Do not put ice directly on the affected area.
3. You can perform this 2-3 times a day for the next 72 hrs or when pain starts to subside.

4. You can start using heat after the 72hrs to help with the recovery.

Usual tendency for people with pain after an injury is to stretch the muscle/area. Do not stretch it as it will make the injury worse. Try to immobilize or minimize movement in the area for the next 48-72hrs. Stretching is beneficial later on during the rehabilitation process. If the pain has not subsided or gone away in 3-7 days of rest (staying away from the activity that caused the pain) your next step is to seek a medical professional.

### Return to Activity/Play

Once pain has gone or you have been cleared to return to play/activity, use the following parameters below and progress slowly. Continue only when there is no pain from a previous session. Do not start back at the same intensity at the time of your injury.

1. Type of Activity
  2. Duration of Activity
  3. Frequency
  4. Intensity
  5. Complexity of Activity

When returning to play/activity track your progress using the metrics below.

1. Pain and Tenderness (progress only when there is less)
2. Range of Motion (progress when ROM increases pain free)
3. Swelling (progress when swelling decreases over time)

#### 4. Heat and Redness (Progress when redness and warm in the area reduces)

If any of the above gets worse after your session, you need to regress or provide more rest. Only progress/increase the number of repetitions and sets when there is no pain.

NOTE: The above is for informative purposes and is not prescribed for any specific injury. Please seek a medical professional when dealing with an injury.

## Testing

Tests are roughly every 4 weeks and provide insight to the coaches and to the team members of where people stand and how they are progressing. Generally, the tests are different depending on the phase or attribute being tested but each test has a strength or weight component and a ESD (energy systems development) or Cardio component

Testing is optional for non-masters athletes but is highly recommended to keep yourself accountable and for the learning experience.

Non-masters athletes may opt to not display their results.

- For masters athletes the following is considered when looking at results
  - Power to body weight
    - This incentivizes you to watch both sides of the equation, your weight which adds drag to the boat and the power you output for that weight
      - Technically, absolute power is most important for the performance of a boat as drag on the boat is not proportionately impacted by increases in weight however, there are small seats and there are big seats due to the design

of the boat, so power to weight gives everyone a chance to perform relatively, which is healthier than absolute power since that may be unattainable

- To look at power to weight, testing results have a body weight and an overall ranking, the overall ranking is normally just a straight average or sum of the ranks of the various components, not perfect and coaches weight a higher percentage to ESD results
  - Order the spreadsheet by overall rank and then by weight. If you're the lightest person on the crew but performed highest by overall rank then that would be looked very positively
  - A note on weight: weight is a complex and sensitive issue as coaches and execs we understand, there can be cultural, physiological issues and on top of that, a lot of misinformation
  - We highly recommend the precision nutrition program as its promotes a healthy relationship with food, food is a beautiful thing and it has so much power to positively impact so much of your life, we hope that you'd read more about it to
- Top 13/14 Male and female athletes on left and right, each gendered person is competing for 13/14 spots on the boat and those people are competing against athletes of their gender on the side they are paddling
- Trajectory over fit tests, doesn't matter where you start, its where you finish
- Preparation
  - How ready are you at test-time?
  - Late?
  - Are you figuring out technique on the spot? Not sure your numbers?
- Accounting for personal circumstances
  - The more you communicate with us the better we can give you the care you need
  - Stuff happens but we can't help if we don't know

- Test overall rankings are calculated by straight average of each component of the fitness test for simplicity
  - Typically, there are 2-3 strength components and 1 esd component
    - The strength components give an athlete insight on which attribute to work on
    - The ESD component in coaches eyes typically holds more weight as it typically is a product of the strength components PLUS your cardiovascular system performance which is more like our sport especially on the paddle ergometer

RPE

## Water Safety

### Weather

- Attending any practice is not worth attending if you don't feel safe, so use your best judgement and factor in your abilities and comfort... most common example is snow, if you're not comfortable driving, no worries just let the execs know
- Thunder/lightning is the most common source of cancellations for water practices, RAIN even if heavy is not
  - Coaches and the practice site monitor weather and try to make a call on cancellations at least 1.5 hours in advance, so before you leave the house, check whatsapp or message one of the execs to see if practice is on if in doubt
  - Thunder/lightning by its nature, can be very localized as a result it can be hard to predict, so their maybe instances where practice may be on but you show up and it gets cancelled
  - The most useful tool that coaches use is the weather radar forecast with red being bad <https://www.theweathernetwork.com/en/maps/radar>

## Water Quality

- E.coli and other bacteria, viruses and bad things are present in Lake Ontario and in varying levels over time and locations
- Read SPC's water quality advisory here for more details
  - Gist of it is the club monitors water quality, don't touch your orifices until you wash your hands, wash your entire body if submerged, consider your own comfort level and health considerations

## Air Quality

- For the first time, practices were cancelled in 2023 due to air quality, similar to the above
- Read SPC's air quality advisory here for more details
  - Gist of it is the club monitors air quality, wearing a mask or other filtering device can help consider your own comfort level and health considerations, your safety is priority

## Injuries

- They happen whether in the sport or through activities outside of the sport
- There are different types of pain, muscle pain/ soreness is usually not a concern, but pain that is sharp, shooting, radiating and doesn't go away when reducing usage should be addressed with the coach if possibly related to activity in the sport to address the root cause but also with a medical professional
- Try not to self-diagnose or even rely on other teammates, put your ego away and address them right away with a medical professional
- Your safety is first and we want you to have a good experience and an injured paddler is normally not going to have the best experience they can and paddling through it doesn't make you a champ, it makes you not so bright and could cause even further damage

- The most common injuries from dragon boat are below and usually due to technical errancies, please talk to your coach to see if they can identify where that might be in your stroke
  - Shoulders strains
  - Low-back
  - **Tips on finding a good health care practitioner:**
    - Don't be fixated on a particular practitioner, look for the attributes of a good practitioner:
      - Humble, less ego
      - Constantly learning
      - Explains what they are doing
      - Provides homework (that you actually do)
      - Admits they can't help you after trying and refers out
        - All bodies are different and a good practitioner admits they can't fix everything, if after 2-3 months there isn't change in any way then it's best you go elsewhere... some conditions regress but then move forward and that's fine but if you're doing what they are saying and things constantly aren't getting better or are staying the same then it's time for them to tell you to go elsewhere instead of continuing to play around
      - Doesn't try to fix things that aren't there or is very focused on maximizing your insurance dollars with "maintenance" there is good maintenance and there's "maintenance" that wants your insurance dollars
      - Less flash

- Clinics with a lot of show, fancy ads, upscale decorum shows where your money goes to and that doesn't necessarily help you get better
- On that same line don't look for a "sports doctor" or elevate doctors or sports specialists to a place or designation that doesn't exist a static "doctor" can be ineffective when compared to an RMT or physio that's been constantly upgrading and sharpening their toolset

## Dragon Boat Capsizing

- Typically happens when the boat is hit with a large or unexpected wave on the broad side and/or a paddler shifts weight due to that wave or for a variety of reasons
- Mitigating actions:
  - Always keep your hip to the gunnel
  - Do not shift your weight or stand up unless getting confirmation from the coach/ steersperson
  - The steers person and coach has the final say on any changes in weight distribution do not tell them what to do
  - Do not stop paddling when passing gaps in the breakwall, a stable boat is one where the paddlers are paddling, not stationary
  - Feathering is a type of stroke where paddlers put their body weight on the blades while it is parallel to the water, similar to spreading butter, this increases the center of gravity of the boat, artificially widening it and adding stability to the boat
  - Always listen to your coach
- If the boat does capsize:
  - Keep your paddle close as to not hit anyone in the head
  - When entering the water stay calm because:
    - You float, the boat floats, help will be on the way and you're never too far away from shore on our waterway

- o Pull your cord on your belt PFD
- o It is critical that you properly fitted your PFD if not a belt type and that you also know how to use your belt PFD (it has to be facing forward before pulling the cord)
- o Look for your seat mate and confirm they are ok
- o Paddlers that are having difficulty should be guided to the front or rear of the boat to either mount the boat or better access the gunnels to hold onto
  - If a paddler is unconscious immediately flag this to your coach, try to keep their head above water without moving their head as they may have an injury
- o Listen to your coach for a buddy roll call and further instructions
  - Depending on the conditions the coach may instruct you to stay with the boat or swim to shore
- o If the coach would like to flip the boat upright then 8 or more paddlers will climb on top of the hull with their bellies on the hull, grab the gunnels and use their body weight to flip the boat upright
- o Once this is complete paddlers can re-enter the boat and start using the bailers to bail water
- o The boat should float throughout this time period as it has air filled sealed sections in the front and back
- o The boat can either be paddle back to shore or the club or towed back
- o Coaches should assess for any other injuries, hyperthermia, shock and concussions and a final roll call when returning to the club

For a more extensive list of SPC's safety protocols, see [link here](#) (In progress)

# Financials

## Relationship with Andrew, Afterburn and Sunnyside Paddling Club

- The team itself does not MAKE any money; the costs are fully allocated/ balances to zero
- I do provide several services to the team by nature of my work revolving around paddling
- I own Afterburn
- I work for Sunnyside as a General Manager
- I personally own the OCs we use
- The rates I charge for the services I provide personally (Afterburn and OCs) are at market price or below if you want to check
- Our organizing committee oversee the budget and the operations to ensure our relationship is in the best interests of the team
- The rates charged by Sunnyside and Afterburn are generally at market or very close to, to ensure fairness across all the people I deal with
- When making EMTs be careful.. if it's for dinner or something not business related then send to my personal email [aliew23@gmail.com](mailto:aliew23@gmail.com)
- If it's run by Sunnyside (like the OC course, then send to [payments@sunnysidepc.ca](mailto:payments@sunnysidepc.ca))

## Team Fees

For all team fee-related inquiries, please speak with Katie, our team Treasurer, or Melissa. Team fees should be sent to [wvipers@gmail.com](mailto:wvipers@gmail.com). It will be under Andrew's name but the account is managed and overseen by the volunteer leadership team.

Our team fee disclaimer is sent out to all new members of the team, sending in your team fees mean you agree to the terms and conditions of joining Water Vipers: [Team Fees Disclosure 2025](#)

Regattas are paid in full. It is assumed that you are attending all regattas. You must let your captains know if you cannot make a regatta a month in advance

# Dragon Boat 101

## Technique

Coaches draw on technique from sprint canoe, kayak, marathon canoe and outrigger canoe. While the emphasis on different components of the stroke may vary, the foundation of the stroke is roughly the same. Below is an outline of the execution of the stroke as developed from the below sources. This again will have differences depending on the coach you are being led by and which program. But the below should provide a good foundation:

Some videos to watch:

Watch seat 1 for best [full stroke](#) example

This [video](#) to see maximum lower torso recruitment from an overhead view

This [video](#) to see our full team in action in a race

Credits: Jim Farintosh, Warriors Dragon Dragon Boat - Outer Harbour Dragon Boat Club with additions from Andrew Liew, Owner/ Coach – Afterburn Fitness

## Execution

### 1. Setup or Peak

- Neutral and tall spine with a slight forward lean to improve leverage
- The Top arm is open with a slight bend to find the strongest possible upper side support
- Bottom arm is parallel to the water and not over extended to maintain effective pressure
- The paddle side is wound through the torso with the legs stabilizing the set up position to optimize pre-loading of the stroke.
- Paddle side leg should have a slight bend at the knee for pre-loading. Both heels of the feet should be on the foot rest in front of you

- Hip should be on the gunnel and perpendicular/ squared to the gunnel
- Head should be facing forward to maintain an open wind pipe and to see the front of the boat for the pace
- Grip on the paddle should be strong but not overpowering
- Wrist should be neutral and not be bent
- Paddle Side Grip may vary over the course of a race to achieve maximal leverage for power
- 80% of maximum reach to ensure drop is completed at optimal paddle angle entry with the body and not the arms
- Elbow at ear level and pointing parallel to the ground as opposed to into the air. Should be consistent throughout stroke to avoid “Chicken Winging” best for shoulder stability and a strong press
- Shoulder blades should be retracted and down throughout entire stroke, think setup for a deadlift movement

## 2. Drop

- Motion to the catch is slightly downward to ensure both upper and lower side recruitment
- Try to maintain an open lat angle (torso to paddle side arm) for as long as possible to best make use of larger muscles (connection with torso/leg drive)
- Hinge at the hips and not the spine
- Maintain tall spine
- At end of drop paddle should have a positive or neutral angle for optimal pulling angle
- Rotate and Hinge more

## 2. Pull

- The body spreads the derotation through the pull phase by keeping the upper shoulder back as long as possible in mid-pull
- The paddle side leg/ hip engages to stabilize and contribute to torso recruitment as desired

- The pull phase generates power by mainly torso rotation (Leg Drive), but also assisted with an upper side downward pressure as the paddler presses up through the stroke
- The paddle side shoulder stays low through the last part of the pull phase to ensure the best possible connection as long as possible before the exit
- The stroke continually accelerates through the pull phase to ensure the highest degree of pressure/connection at all times

## 2. Recovery

- The exit is as clean as possible with the paddle tracking back to the setup with the minimum of extraneous motion of the arms and a brief relaxation to prepare for the next pre-loaded setup
- Similar to the Pull phase, focus should be maintained on utilizing torso rotation to return the paddle back to the pre-loaded setup
- Paddle path should be tight to the gunnel and water for efficiency
- Keep body and arms connected (one should not move without the other at any point) Arms maybe traveling a further distance then torso, but should still be connected
- Top arm should move on a 7-up path, starting towards 2pm or 11pm and tracking back at the very end of the recovery

## Primary Movers/ Muscles driving stroke

Latissimus dorsi

Gluteus maximus aka that booty

## Cues (BCELPT)

The below are some internal cues, things that a coach can't necessarily see from the outside but that you can through an internal self-assessment/ things going on inside your brain and your body

- **B**alanced Pressure on the upper and lower sides of your body to optimize recruitment
- **C**onnection, to ensure the highest quality of pressure in the catch, mid-stroke and release point of the stroke
- **E**fficiency, a general overview to clean up and minimize motion that is not productive to the best possible stroke cycle
- **L**everage, using your height and hand position on the paddle to allow you to use the best degree of leverage you can handle in the stroke
- **P**atience, in your pull phase to allow the body to sequence motion effectively and to minimize shearing/ cavitation in your connection
- **T**empo, a team commitment to an accelerated, compact stroke that is powerful and optimizes glide, especially in the travel portion of races

## Video Capture guidance

Guidance for taking videos to be reviewed for technique

- One shot as perpendicular to the athletes as possible
  - Capture their legs (so slightly elevated)
  - Capture the entire stroke from blade entry to exit
- Second shot from directly behind
  - capturing their buttocks (we're looking for weight distribution and rotational movement at the tailbone)
- 10 stroke minimum

## Race Strategy

Work In Progress

A race consists of a start, a travel portion, and a build.

### Race Progression 500M

| Call                                                                   | Stroke/<br>Distance | Thinking                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Steers person approach the start line                                  |                     | Roughly 2-3 minutes to start, once we leave the docks all focus is in the boat and listening to your steersperson. Especially important as we approach the start line as the steers person may need help to draw or pry to keep the boat straight. They will also need help moving the boat forward or backward to line up. You should be in your set positions. |
| Attention Please or Paddlers are you Ready? Or Start within 10 seconds |                     | Paddles fully buried, all muscles braced and tense to transfer power effectively                                                                                                                                                                                                                                                                                 |
| GO (or a gun)                                                          | 0                   | GO                                                                                                                                                                                                                                                                                                                                                               |
|                                                                        | 1                   | Gear 1 strokes which is 50% ROM (Range of Motion), stay forward and rotate (cut out the front 25% and back 25% of your stroke)                                                                                                                                                                                                                                   |

| Call | Stroke/<br>Distance | Thinking                                                                        |
|------|---------------------|---------------------------------------------------------------------------------|
|      | 2                   | Continue to stay forward and use your hips to drive the rotation                |
|      | 3                   | Keep your body weight on the blade                                              |
|      | 4                   |                                                                                 |
|      | 5                   |                                                                                 |
|      | 6                   |                                                                                 |
| GEAR | 7                   |                                                                                 |
| 2    | 8                   |                                                                                 |
| NOW  | 9                   | Gear 2 strokes 75% ROM, a bit more movement through the upper torso to press up |
|      | 10                  |                                                                                 |
|      | 11                  |                                                                                 |
|      | 12                  |                                                                                 |
|      | 13                  |                                                                                 |

| Call    | Stroke/<br>Distance | Thinking                                                                   |
|---------|---------------------|----------------------------------------------------------------------------|
|         | 14                  | Gear 3 strokes at 100% ROM                                                 |
| GEAR    | 15                  | Start from the footboard, how's the pressure?                              |
| 3       | 16                  | Are you rotating your hips                                                 |
| NOW     | 17                  | Is your spine neutral? Are you big and tall?                               |
|         | 18                  | Arm straight                                                               |
|         | 19                  | How's your RPE? Is this the intensity you can hold for the next 2 minutes? |
|         | 20                  |                                                                            |
|         | 21                  |                                                                            |
|         | 22                  |                                                                            |
|         | 23                  |                                                                            |
|         | 24                  |                                                                            |
| 150 NOW | ~ 150M              | +1-2SPM                                                                    |

| Call    | Stroke/<br>Distance | Thinking                                                                                                                                                                                                                      |
|---------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 250 NOW | 250M                | Check your RPE and energy level, adjust as necessary to ensure it's not too easy and not too hard .Re-focus on technique efficiency (run through your cues, find efficiencies, check footboard pressure, check sync) + 1-2SPM |
| 350 NOW | 350M                | Re-focus on technique efficiency (run through your cues, find efficiencies, check footboard pressure, check sync) + 1-2SPM                                                                                                    |
| 450 NOW | 450M                | EMPTY THE TANK + 1-2SPM                                                                                                                                                                                                       |

## Dragon Boat Terminology

*First and foremost, we “Paddle,” not “Row.” It’s a crime punishable by burpees to say that you do the latter 😞*

## Sections of the Boat

**Fronts or Pacers :** The front 3 rows, these people are typically adept at maintaining the right pace and rhythm depending on the strategy being implemented, the feel of the boat and the racing conditions. Row 1 are typically the most experienced and able to do the above, of that row there is normally a lead pacer. Physically, this group is also usually smaller in stature as the boat gets narrower in the front 3 rows and the floor of the boat rises

to the seats. Narrowness means the wider the hips and shoulders the more cramped, floor rising is a result of the concaveness of the hull of the boat, so there is less leg room.

**Middle or Engine Room** - The middle 4 rows, paddlers are usually larger in stature since the height of the seat is the highest providing more leg room and the width of the seat is maximal as well. These people are tasked with two jobs, to follow the pacers while providing maximal power on demand.

**Backs or Rockets** - The back 3 rows, similar to the pacers but in reverse the leg length and seat width decreases the further in the boat you go, so smaller paddlers are typically in this section. In more recreational teams, this section can be for less experienced paddlers that may be figuring things out and technique wise so as to provide less disruption to other paddlers. In more experienced teams some of the most technically proficient and intelligent paddlers are placed here. Water towards the back of the boat typically moves faster than at the front so paddlers that can “feel” the water and find good resistance in this fast moving water are placed here.

### Paddling Cues & Calls

|                        |                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>“Sit-up”</b>        | Be ready and attentive, get into a neutral spine position, hips perpendicular to the gunnel, heels on the footboard, grip on paddle ready to go into peak position |
| <b>“Paddles up”</b>    | Into the apex or setup position of the stroke                                                                                                                      |
| <b>“Take it away”</b>  | Start paddling, staying in sync with the rest of the boat                                                                                                          |
| <b>“Hold the boat”</b> | Dip the full blade into the water and hold the blade perpendicular to the boat. Do not let go until the steersperson calls it                                      |
| <b>“Let it run”</b>    | Relax and stop doing whatever you were doing (paddling, holding, backing it down, etc)                                                                             |
| <b>“Check”</b>         | Push your blade into the water and take it back out. Used to slow                                                                                                  |

|                                 |                                                                                                                                                                                                                                                                                                                                |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 | down the boat but not take away all the momentum.                                                                                                                                                                                                                                                                              |
| <b>“Feather/Brace the boat”</b> | Place your paddle blade parallel on the water, applying some bodyweight to the blade while gliding the blade forward and backward across the water surface. Used to artificially increase width of the boat, stabilizing against waves or when paddlers need to swap seats within the boat. Imagine spreading butter on toast. |
| <b>“Back it down”</b>           | Paddling in reverse, staying in sync with the person in front. Used to back the boat out of the docks or to align the boat to the starting line in a race.                                                                                                                                                                     |
| <b>“Draw”</b>                   | paddle perpendicular to the boat to move the boat sideways.                                                                                                                                                                                                                                                                    |

All of the above calls can be directed to individual sections or rows, for example the steers person may say: “Fronts (first 3 rows) 1 stroke forward” or Front Rights draw 1 => this would move the nose to the right or “Right side Draw 1” => This would side shift the entire dragon boat to the right

## Say Hi to Us!

### The Execs

Water Vipers is run by a team of volunteers. If you have any questions, reach out to any one of us! We don't bite

|                   |                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Andrew            | Captain, Manager, Club Founder                                                                                                                |
| Katie             | Finance, Treasurer                                                                                                                            |
| Melissa           | Overseer (AMA)                                                                                                                                |
| Jeremy            | Club recruitment, web, super smart logic organizer                                                                                            |
| Rocky             | All things creative & design! Graphics, jersey, social media                                                                                  |
| Mark              | Your most personal technical paddling Jedi Master                                                                                             |
| Jenny             | Socials, keeping the team fun                                                                                                                 |
| Kelly             | Emails, internal admin, fun sized but powerful                                                                                                |
| Prish             | Performance Head Captain! The friendly face of Performance : - )<br>Any issues/questions of the Performance team can go to her!               |
| Nick, Frank, Jake | Performance Co-Captains by Boat! Nick (A), Frank (B), Jake (C) -<br>any issues/questions about the specific Performance boats can go to them! |

### The Coaches

The people who make us better at paddling

|       |                                     |
|-------|-------------------------------------|
| Khanh | Strength and conditioning gym coach |
|-------|-------------------------------------|

|          |                                    |
|----------|------------------------------------|
| Laura    | Performance technical paddle coach |
| Fernando | Performance technical paddle coach |
| Shan     | Masters technical paddle coach     |

If you'd like to offer assistance, there are lots of ways to get involved. We are always looking for people who can help with the following:

- o Fundraisers
- o Recruitment
- o Special events
- o Coaching
- o Steering

## FAQs

Do I need to know how to swim?

- No, but you should be comfortable in water with a properly fitted PFD

Do I need to be strong or in shape to do the fitness workouts?

- No, the program is periodized, progressive, and led by a professional trainer with experience in a wide range of injuries and demographics. We'll get you to where you want to be so long as you're willing to work smart and hard.

What is sport-specificity? Can I do other sports at the same time

- Sport-specificity refers to training using activities and exercises that are close to the sport. In the gym, each movement has its purpose of improving your paddling technique. We start off with general movements and slowly tailor the program to be more specific to the sport as water season approaches.

While you can do other sports concurrently, it's important to note:

- Our program is designed to progressively tailor workouts specifically for paddling. To optimize performance, especially at the competitive level, your activities outside of our practices should be to become a better paddler and follow the prescribed program
- Other activities may interfere with the program's cycle and lead to potential injuries. IF you do other activities, general fitness bootcamps, endurance running, cycling etc; while they may improve your fitness, it won't be as efficient as following the program provided for our sport. Please be mindful that they do not interfere with the current program as it can lead to negative outcomes such as injuries.

What is a club versus a crew?

- A club is a collection of crews or teams. Sunnyside Paddling Club is a Club that services other clubs and other crews. Crews compete in a variety of different divisions. For example, open division has no restrictions on men or women while women's division is for women only. There are also age categories and ability categories.

How does the National Team work?

- The national team consists of the best individual paddlers in various categories competing for spots to represent Canada at the World Dragon Boat Race Championships. This differs from the World Club Crew Championships, which involve a set number of crews from each country competing against crews from other countries. [Read more here.](#)

## Appendix A

See below for a race day nutrition sample

|         | Game Day Nutrition                         |                                  |                                            |                                                                                      |                                                                                                                                             |
|---------|--------------------------------------------|----------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| ~Time   | Event                                      | Description                      | Type of Fuel                               | Example                                                                              | Avoid                                                                                                                                       |
| 6am     | Breakfast                                  | Pregame Meal (3-4 hrs before)    | Protein, fat(small), carbs (low GI), water | Scrambled Eggs, Oatmeal and Peanut butter, Dried apricots, apple juice, water        | Fried Foods, Spicy Foods, creamy sauces, high fiber foods, caffeine, soda, foods or beverages you've never tried before, fast acting sugars |
| 8:15am  | Warm up                                    | Top off Fuel (before warm up)    | Protein (optional), carbs, water           | Sports bar & water OR banana & sports drink OR fig bar & water                       |                                                                                                                                             |
| 9:05am  | 500m Qualifier                             | During Game (throughout day)     | Carbs, Fluids                              | Sports drinks, pieces of sports bars, fresh or dried fruit, trail mix, vector cereal |                                                                                                                                             |
| 10:50am | 200m Final                                 | During Game (throughout day)     | Carbs, Fluids                              | Sports drinks, pieces of sports bars, fresh or dried fruit, trail mix, vector cereal |                                                                                                                                             |
| 11:30am |                                            | Lunch                            | Protein, Carbs, Fat (small), water         | Grilled Chicken, Sweet Potato, Green Beans, Water                                    |                                                                                                                                             |
| 1:30pm  | Warm up                                    | During Game (throughout day)     | Carbs, Fluids                              | Sports bar & water OR banana & sports drink OR fig bar & water                       |                                                                                                                                             |
| 2:26pm  | 500m Final                                 | During Game (throughout day)     | Carbs, Fluids                              | Sports bar & water OR banana & sports drink OR fig bar & water                       |                                                                                                                                             |
| 3pm     | 2k                                         | During Game (throughout day)     | Carbs, Fluids                              | Sports bar & water OR banana & sports drink OR fig bar & water                       |                                                                                                                                             |
| 3:30pm  | Cool down                                  | Recovery (immediately after 2k ) | Protein, Carbs, Fluids                     | Sports bar & water OR banana & sports drink OR fig bar & water                       |                                                                                                                                             |
| 4:30pm  |                                            | Postgame (1 hr after 2k)         | Protein, Carbs, Fats, Fluids               | Sushi                                                                                |                                                                                                                                             |
|         |                                            |                                  |                                            |                                                                                      |                                                                                                                                             |
|         | ** Consume 100ml of water every 10 minutes |                                  |                                            |                                                                                      |                                                                                                                                             |