Learn to Row Sculling Guide

1 *Introduction*

The Learn to Row course is intended for those who have never rowed before, or who have rowed quite a number of years ago and are in need of a refresher. This guide serves as an overview of safety in the rowing world, the equipment we use, rowing terminology and basic technique. It is not a course overview, as all of your time will be spent on the water after the first lesson, but a compliment to the practical portion of the course for you to learn all of the basics in rowing.

You will find that although rowing looks easy, as with many sports, it takes some time to initially get a feel for the flow and get comfortable with the technique. It is different for everyone, but typically it takes a season of rowing to really consider yourself a competent rower.

This sport is one of a few full body, low impact sports that can be done for your entire life. We often say "Good from 8 to 98" and it is no exaggeration. Welcome to rowing, we are so very excited you have decided to try out this amazing sport, recreation and way of life!

2 *Safety*

2.1 Sign Out Procedure

Since most lessons are coached with a fairly high coach ratio, the coach responsible for the session will ensure that all rowers make it safely back to the centre. In some instances though, with large groups or unsupervised rowing, we may use a sign out book to let the head coach and others know when we left, when we are coming back, and what equipment we took. If you are not back at the indicated time, then the head coach or designated person will know there may be a problem and come looking.

2.2 Equipment Repair Procedure

If you notice anything with the equipment that appears to be in need of repair or attention, or if something happens to any of the equipment while you are rowing, please be sure that a coach is made aware of the issue so that it can be repaired.

2.3 Lifejackets, Whistle and safety kit

Each rowing shell rowing on its own should carry a life jacket, whistle and safety kit containing 15m buoyant heaving line, a bailer and a waterproof flashlight.

2.4 Traffic Pattern

Each rowing location has a traffic pattern (map) of where we typically row and the direction in which we should row. This ensures that we do our best to avoid any chance of collision. While you are learning it is difficult to steer on your own, but it is very important that the traffic pattern is observed to the best of your ability.

2.5 Capsizing a rowing shell

In the event of a capsize with no coach boat present, the following should be completed:
- Put on your lifejacket (either in the boat, or in the coach boat)
- Stay with the boat as it is bouyant and more visible than you are in the water
- Use the whistle in the boat to alert attention
- In cold water drape yourself over the boat to get your body out of the water
- If unable to get out of the water, assume the 'help' position while floating in the water and for larger crews huddle with the remainder of the crew to conserve heat in warmer water conditions.

In the event of a capsize with a coach boat present
- The coach will throw out life jackets to the entire crew if more than one are capsized
- Climb into the coach boat either with a ladder or with the assistance of the coach and others in the boat.
- The coach will take all rowers back to the club if there is any risk of hypothermia, and then come back for the boat, or may help to assist the crew in righting the boat and getting back into the boat in ideal weather conditions

2.6 Navigating Waves

While navigating in any waves that could potentially swamp the rowing shell, the best approach is to turn the boat so it is parallel to the waves, since it is so narrow, and float up and down on the waves. With smaller waves, you can simply let it run, or even continue rowing, especially in Open Water (Touring) Shells.

2.7 Swamped Rowing Shell (safe exit)

In larger racing shells that are swamped, damage can be done to the hull of the boat if there is too much water in it. If it is full of water, and you must exit the boat, you should slide out into the water while holding control of your oars, and then follow the guidelines of a capsized shell above. This should not be done in cold water conditions, instead, a whistle should be used to signal for help. In Open Water/Touring shells, they can either be bailed out, or should likely not be able to take on enough water to capsize or do damage.

2.8 Bow Balls

A bow ball is a rubber ball on the bow of the boat to prevent damage to the boat and other objects in the event of a collision.

2.9 Appropriate Clothing

2.9.1 Cold Weather

Several layers of clothing are better than one thick one. Wear two pairs of socks with the first one being a little lighter than the second. Polypropylene long underwear is great because it draws sweat away from the skin. Body outfits such as lycra suits are particularly effective. Sweat pants and windbreakers are also very effective. Remember your hat! About one third of the body's heat loss is from the top of the head.

2.9.2 Summer Weather

In summer, the weather can be extremely hot and humid. A rower should always wear a hat, one that covers the ears and neck. Sunscreen, 15 SPF or higher, is critical to protect against the sun's ultraviolet rays. You may also want to protect your skin with lightweight and light coloured clothing.

3 *Equipment*

3.1 Overview

3.1.1 Rowing Shell Types

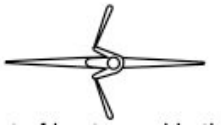
Sweep – We refer to sweep rowing and sweep boats as those where the rowers each control one oar.
Sculling – We refer to sculling or sculling boats as those where the rowers each control two oars.
Racing (Flat Water) Shells – Shells used in competitive flatwater races, with the most typical distance being 2000m.
Open Water (Touring) Shells – Multipurpose rowing shells that are more stable and meant to handle more conditions. Used for teaching, for tripping and touring and for fitness as well as used in open water competitions of various lengths.
Coastal Rowing Shells – These are rowing shells that are ocean worthy vessels. There are many different types; surf rowing, ocean crossing, and more.

Typical Sweep Boats (Flat and Open Water Shells)
Pair – 2 people, one oar each. No coxe (except on very old rowing shells!)

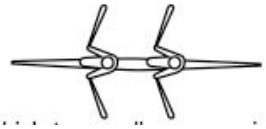
Four – 4 people, one oar each, a coxed four has a coxe and a straight four has no coxe

Eight – 8 people, one oar each, typically always with a coxe

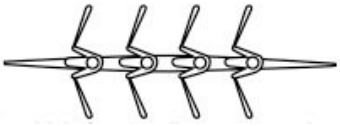
Typical Sculling Boats (Flat Water and Open Water Shells)
Single – 1 person, two oars.



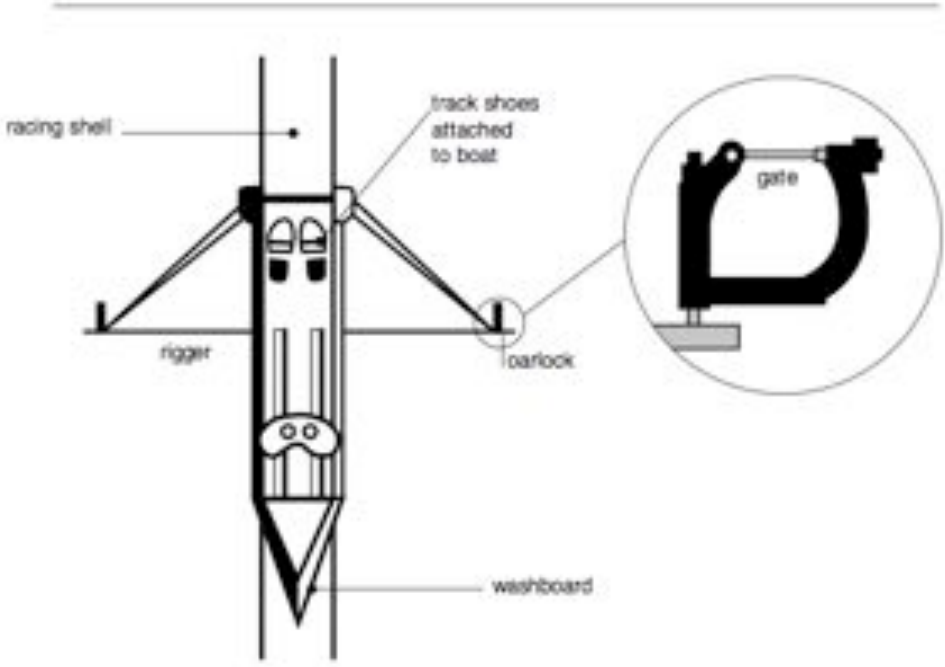
Double – 2 people, two oars each. No coxe.



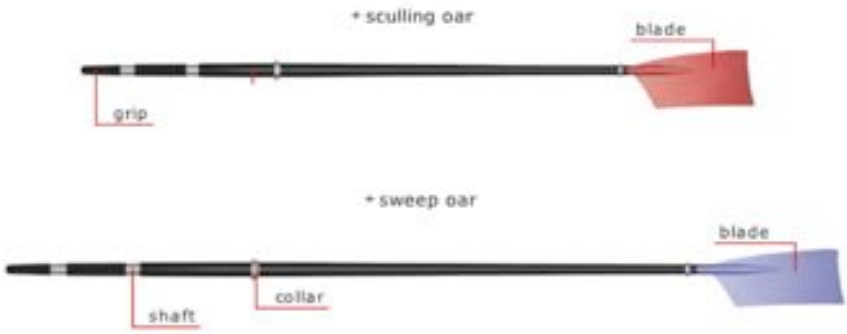
Quad – 4 people, two oars each, often with no coxe in flat water shells, and usually with coxe for open water shells.



3.1.2 Parts of the Boat



3.1.3 Parts of the Oar



3.2 Equipment Handling and Adjustment

3.2.1 Oars

Oars should be carried when possible with one in each hand, and the blade portion of the oar in front of you as this is the most expensive part of the oar, it is easiest to avoid contact with objects you are passing. Blades should be placed on the ground with the inside curve of the blade up, so that if someone steps on them, they are less likely to crack.

3.2.2 Boats

Boats are stored in the boathouse with the bows facing towards the water, ready to launch. Boats are typically either turned around on the water or on land prior to being stored again so that they are ready for the next use. At Hatchets, we turn the boats around on the water and back into the dock as we have no room to turn them around on land, plus it's great practice! After rowing, boats should be wiped down after each use to prevent buildup from anything accumulated on the boats while rowing.

3.2.3 Foot Stretchers (Foot Stops)

A basic adjustment that crew members can make at the dock is moving their footstretchers (foot stops). Adjusting the feet toward the bow or the stern of the boat enables the rower to ensure that the oars are setup so that an even amount of arc goes to the stern and bow of the centre point (in line with the oarlock).

In sculling boats, the initial setting should be made so that the butt ends of the sculling are 15cm apart at the release point of the stroke.

4 *Terminology*

4.1 Common Terms

Blades: Another term for oars, also the blade refers to the large surface of the oar that is in the water that is used to propel the boat.

Bow: The leading edge/front of the boat. There should be a bow ball on the bow of racing shells.

Collar: The plastic ring part way down the shaft of the oar that provides the fulcrum in conjunction with the oarlock.

Coxswain (cox, coxy)**:** The person who steers the boat and gives the commands to the crew.

Decking: The plastic material which is used to cover the bow and stern of the boat where no one sits.

Fin: A short piece of metal toward the stern of the boat on the bottom of the hull. This helps to keep the boat moving in a straight line.

Footboards/Foot Stops: This is where the rower places his/her feet when sitting in the boat. These are adjustable to permit shorter or taller people to sit in the same position relative to the desired arc of the oar. Some boats have clogs and other boats have shoes.

Gate: The top part of the oarlock which closes the oar into the oarlock.

Gunwales: Located above the boat's hull, rowers sit between the gunwales and the riggers are attached here. It provides some rigidity but is not as strong as it looks. One of the main purposes of the gunwale is to keep water out of the shell in rough conditions.

Oarlock: Holds the oar and acts as a swivel during the drive and recovery.

Port: This is the right side of the boat if you are rowing since you are facing the stern (on the left side of the boat for the cox since they are facing the boat). In some clubs, port oars are marked with red tape.

Rigger: The metal support that holds the oar. This is also adjustable, but typically is not adjusted for each row.

Rudder: This can be located in the very stern of the boat or attached to the fin. It is used to

steer the boat. It is not found on all boats, usually only on sweep boats, or larger sculling boats (quads).
Sculling: The participant rows with one oar in each hand.
Shaft: The long "stick" part of the oar.
Slide: The two metal tracks that the seat slides on.
Starboard: This is left side of the boat if you are rowing, since you are facing the stern (on the right side for the cox who is facing the bow). In some clubs, starboard oars are marked with green tape.
Stern: The trailing side/back of the boat. This is usually where the coxswain sits and is where the rudder is on larger boats.
Stretchers: The portable slings that the rowing shells are placed on when not on a rack.
Stroke seat: In boats with more than one rower, the rower who sits in the stern seat who sets the rhythm and pace for the crew.
Sweep: When each rower is rowing with only one oar, with boat hands on the oar.

4.2 Rowing Jargon

Ready to Row? Ready…ROW!: The command to start rowing.
Catch a crab: The blade gets caught in the water as a result of going too deep or not getting the blade out quickly enough at the release.
Feathering: During the recovery, the blade is rotated so the spoon is carried parallel to the water.
Hold water: The command used to stop the boat. The blades are held slightly squared in the water.
Inside hand: In sweep, it is the closest hand to the oarlock.
Let it run : This is a command that means stop rowing and setup(balance) the boat, but let the boat keep running along the water.
Outside hand: In sweep, it is the hand that is farthest away from the oarlock.
Square blades: The blade is in the working position, perpendicular to the water.

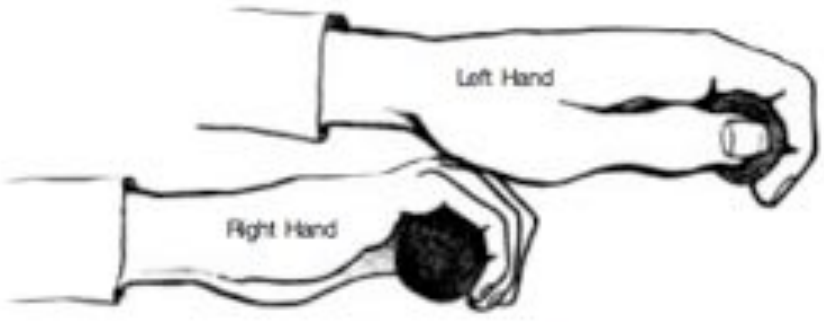
4.3 Rowing Commands

Hands on the boat: Crew places themselves along the boat across from the assigned seats and puts hands on the gunwales, standing ready to lift the boat.
Ready to roll the boat toward… : The rowers grab the cross pieces inside the boat and together roll it in the direction they are told. If the crew is going to put the boat onto stretchers, it is important that the boat be rolled away from the stretchers to avoid putting a hole in the boat.
One foot in and down!: Participants step into the boat (instructor will demonstrate and assist) and sit on the seat and always hang on to the oar.
One hand on the dock ..Ready! Push!: All crew members push the boat away from the dock.
Over the head, ready up!: The boat is pushed from shoulder height to over the rowers heads with arms stretched straight with one hand on each gunwale.
Roll it to the water!: Slowly the crew rolls the shell toward the water and sets it down together.
Up to the shoulders, ready up!: Crew lifts the boat to carry it at shoulder height. This command may not be used depending on the club's boathouse, boat's location on the racks and the height of the riggers on boats in the boathouse.
Hands on the boat, lift to the waist, or lift off the rack, ready up!: The crew lifts the boat off the racks on the command.

Toe the edge!: Crew places foot at the edge of the dock to ensure that they do not place the boat on the dock and damage it.
Walk it out! And watch the riggers: Crew carefully walks the boat out of the boathouse, watching carefully to make sure that the riggers do not bang on anything.
Water side slide the oars across: The water side blades are pushed out so that the collar is against the oarlock and the blade is feathered on the water. This provides stability while the participants are getting into the boat.

5 ***Sculling Grip***
- The thumbs should be over the end of the handles at all times.
- The wrists and knuckles should be flat during the drive and recovery.
- Keep relaxed fingers without losing control.
- The hand just counterbalances the oar and keeps the blade at the correct height off the water on the recovery.
- It is easier to feather the blade by turning the handle with the fingers instead of bending the wrists.
- The wrists should be flat as the oar handle is being drawn toward the body.
- The wrists should be flat while the handles are at the body after the release.
- During the squaring and feathering action, the handles should be rolled in the fingers rather than being turned by excessive wrist movement.

- Because of the length of the inboards in sculling, the handles will overlap during the stroke (mid-drive/mid-recovery). This overlap in sculling is called the crossover. It is easy to manage in both directions if a couple of simple steps are followed:
- On the drive, the right hand should come through the crossover ahead of the Left hand, and slightly below the left hand.
- On the recovery, the hands are in the same position, with the right hand slightly below and behind the left, as shown below.
- The arms and wrists must be straight and long during the drive; the arm pull should start as the hands are coming through on the crossover. Right hand leads in, left hand leads out.



GRIP AND CROSSOVER

6 ***Technique***

The purpose of this section is to provide basic information about rowing technique to assist you in learning more about the skill that you are trying to master. Correct posture will help you to be more comfortable as you learn this new skill.

RELEASE

The release is the point in the stroke where the legs, back and arms have finished the work and the blade is taken out of the water square by pushing down on the handle. At the release:
- Lean back but lower back should remain firm.
- Keep chin horizontal.
- Shoulders should be relaxed.
- Hands should be loose and relaxed at this point.
- Legs should be locked.
- Blade(s) should come out on the square, while the hands tap the blade down, and then roll the oar(s) onto the feather with the fingers (inside hand only for sweep) and hear the oar(s) clunk onto the feather in the oarlock.

RECOVERY

The recovery is the part of the stroke from the release to the entry. During the recovery, the boat should run as far as possible so nothing should be done to interrupt the boat's glide. During the recovery, the body is slowly decelerating all the way to the catch. The Early Recovery should be done quite quickly as it is at the beginning of the deceleration, and the late recovery should be quite slow as it in the later part of the deceleration.

EARLY RECOVERY

With the blade being feathered as the oar handle moves away from the release position, the sequence should be: hands first, arms steadily extend and then upper body. Other key points:
- Legs are relaxed and down until the hands clear the knees and the body swings over the hips.
- Rower's weight is in the middle of the boat.
- Keep a loose relaxed grip.

LATER RECOVERY

The rower is getting ready to take the next stroke. Here are the key points at this phase of the stroke:
- Shoulders and upper body is ahead of the hips.
- Body is relaxed.
- The knees are starting to bend and the slide begins to come forward. • Arms are completely stretched but are relaxed.

APPROACHING THE CATCH

The rower keeps moving toward the stern. The swing forward of the upper body has finished. The blade starts to square as the oar handle passes over the feet. The blade should be fully squared just before reaching the entry position.

CATCH

The catch is the point in the rowing stroke when the oar is placed in the water. It is a transition phase in the rowing cycle.
- The arms should be straight.
- The body should be in a strong forward position (straight back).
- Heels should be down all the way, or just slightly lifted if required.
- The blade handle is 'unweighted' to let the blade DROP in at the catch, you will hear the correct

'plunk' sound from the oar as it lands in the water.
- The shins should be as close to perpendicular as possible.
- Chin/head should be horizontal.

DRIVE

The drive is the propulsive phase when the blade is secure in the water and the oar is pushing the boat ahead.
- The drive is initiated with the legs as soon as the blade is buried;
- The back starts to pull as soon as the hands come over the knees;
- The arms start to bend as the oar comes to a right angle position to the boat, and at this point the legs are almost straight and the back is nearly vertical.
- There should be a smooth transition between the legs/body/arms to ensure a strong straight pull through the water with no waivering.
- The blade should be at the same depth at which it would float, with the blade just buried under the water.

7 ***Drills for skills***

Your instructor will teach a number of drills that will help improve your rowing stroke. It is important to understand what the drill is and why it is being used to help you learn the rowing stroke.

LEARN TO ROW DRILLS

Stabilizing the boat: Holding the boat in the setup position while moving your body back and forth as if you were trying to tip the boat with your body; *Flip/Flop Drill:* Alternate putting one hand up, one hand down to flow the boat back and forth; *Barrel Role Drill:* Similar to the flip/slop drill but with your hands doing circles around each other; *360deg turning:* As it sounds. A 360 degree turn each way; *Forwards/backwards rowing:* Row three strokes, hold water, back three strokes, hold water. Repeat.

PLOP DRILL

This involves sitting at any position in the stroke, depending on what you are working on, and lifting the blades out of the water and letting them drop back in to hear the proper catch sound. Often done at the catch or release position to practice the catch or release, but since these are also the least stable positions, it is quite often done with the hand and body out, and legs straight to focus on pivoting at the shoulders when dropping the oars in.

SQUARE BLADE ROWING

In this drill, you will hold the blade on the square during the whole rowing stroke. The drill can be used to help teach and/or reinforce a number of rowing skills such as pushing the handle down at the release (before feathering), keeping the blade off the water on the recovery (one full blade width), putting the blade into the water fully on the square.

PAUSE DRILL

The instructor will use this drill to help you get the proper sequence of the body on the recovery. It involves pausing part way through the recovery at any position, but most commonly with the hands over the knees, the body angle set and legs flat. After this point, the rower glides up the slide keeping the upper body still and ready for the entry.