

A Beginner's Guide to the Joy of Sculling



**Navesink River Rowing
Red Bank, New Jersey**



A Beginner's Guide to the Joy of Sculling

Table of Contents

Adult Beginner Lesson Outlines	3
A Quick History of Rowing	4
Rowing and Health Benefits	5
Safety and Clothing... ..	7
Types of Rowing Shells	9
Diagram of a Rowing Shell	10
Equipment Check	11
Transporting and Caring for the Shell	13
Grip	14
Rowing Stroke	15
Posture	16
For Safe and Enjoyable Rowing	17
Policies and Procedures	18
Beginner Continuation Membership	20
Glossary of Rowing Terms	21

Adult Beginner Lesson Outline

Day 1

By the end of Lesson One, students will be able to

- **select** a beginner level rowing shell, carry it with a partner, check it for problems, and set it up for an on-water session.
- **get in and out** of a boat unassisted, and be secure and stable in the boat.
- **grip** an oar properly, **feather** the blade, **square** the blade, **demonstrate** a level pull and keep the oar blade at proper depth.
- **row** several strokes “arms only” and “arms and back.”
- **back** the boat; **stop** the boat.

Day 2

By the end of Lesson Two, students will be able to

- **demonstrate** improvement of skills covered in Lesson One.
- **row** with full strokes with proper blade work (squared blade at entry, feathered blades during recovery, and blades off the water during recover).
- **select** a beginner level rowing shell, carry it with a partner, check it for problems, and set it up for an on-water session.
- **independently** set up a boat for an on-water session: adjust the foot stretchers, place the oars properly in the oarlocks, and enter the boat correctly.

Day 3

By the end of Lesson Three, students will be able to

- **apply** skills from lessons one and two and use them in a single.
- **row**, turn around, and row back to the shore in the launch area.
- **use** a “point” to steer outside the launch area; start to adjust course without stopping.
- **complete** a tip test.

Day 4

By the end of Lesson Four, students will be able to

- **demonstrate** understanding of skills introduced and practiced in lessons one, two and three (stroke sequence, blade work, slide control, level “pull through,” steering without stopping the boat, proper grip, relaxed hands, and smooth release).
- **row** for at least thirty minutes utilizing the skills mentioned above.
- **identify** traffic patterns and obstructions/obstacles unique to the Navesink River.



A Quick History of Rowing

(From Sammamish Rowing Association "ABC's of Rowing")

Rowing is one of the oldest sports in existence today. But, as with many sports, it did not originate as a sport, but as a practical means of transportation on the water. Most ancient civilizations located near the northern and mid-latitude oceans of the world used rowing to initiate and expand trade and, for some, to engage in war. Victory usually came to those with the fastest and most maneuverable boats.

Competitive rowing undoubtedly started as two boats with spirited captains vying for speed supremacy of local waters along trade routes. Over 2,000 years ago, between 30 and 19 B.C., races between oared galleys were common in Egypt and Rome. It was not until the 1700s, however, that such challenges became popular as a sport among ordinary citizens. This occurred in England, along the Thames River, where river boatmen would race long barges. The oldest documented sport-rowing contest in the world, the Doggett's Coat and Badge Race, has been held annually on the Thames since 1715.

More recently (1829) the annual rivalry of the Oxford-Cambridge race was initiated on the Thames, followed shortly by the equally famous Henley Royal Regatta (1839). The original Yale-Harvard race in 1852 on the Charles River in Boston was the first intercollegiate event of any kind in America; and competitive rowing was part of the original Olympic Games first held in Athens, Greece, in 1896.

The first recreational rowing boat was introduced by Arthur Martin in 1971. He wanted to row on coastal waters too rough for racing shells. Now many manufacturers offer recreational rowing shells that are more stable, wider, and shorter than racing shells, allowing rowers of all skill levels greater access to the sport. Navesink River Rowing owns several more than a dozen recreational rowing shells, which are available to all members. Also available are several doubles, nine quads and five racing singles.

The Health Benefits of Rowing

--Marie Hutchinson

Slide seat rowing is the most magnificent sport there is, according to Fritz Hagerman, Ph.D., a professor in the Biological Science Department at Ohio University. Hagerman, who studies exercise physiology such as aerobic and anaerobic capacities, metabolic response, and the effects of blood lactate levels on athletes, found that competitive rowers expended almost twice the number of calories on a 2,000-meter course as a runner in a 3,000-meter steeplechase. He says the latter is considered one of the toughest events.

Doctors say there are now 1,000,000 joint replacement surgeries performed each year due to high impact sporting related activities. In 1999, 440,000 people had joint replacement surgery in the United States, with the hip and knee making up 98 percent of those procedures. For hip surgeries, the average age was 66 and for knees, the average age was 68.

Both competitive and recreational rowing are unique in comparison to most sports in that they exercise all of your major muscle groups. Everything from your legs, back, and arms are engaged while rowing. In addition, rowing is a low-impact sport. When executed properly, the rowing stroke is a fairly safe motion, providing little room for the serious injury often found in contact and high-impact sports. The motion of each stroke is made up of four parts that flow into one another. These are the catch, the drive, the finish, and the recovery. The following is a description of the biomechanics of rowing.

The catch is the start of each stroke and it is the moment when you place your oar into water. The legs, hips and shoulders in use during the catch involve the following muscle groups: quadriceps, gastrocnemius, soleus, gluteus maximus, and biceps brachii.

The drive: As you begin to push with your legs, you are entering the drive of the stroke. During the drive your legs, back and arms are working with the trapezius, posterior deltoid, quadriceps, pectoralis major and biceps brachii muscle groups.

The pull: Once the legs are fully extended, you begin to pull the oar in with your arms and swing your shoulders backward, bringing yourself to the finish position. You have just utilized the rest of the entire body's muscle groups as follows: gluteus maximus, quadriceps, brachioradialis, and abdominal.

The recovery: The entire process is repeated, each movement flowing into the next, forming another stroke.

Achieve fitness goals faster: A University of Stockholm study has confirmed the added benefits of recreational activities when performed in an outdoor setting. Many of us already suspected that we exercise harder with outdoor exercise without feeling as tired or even like we have worked

hard. We also know that the higher the exercise intensity, the sooner fitness goals can be reached. Achieving fitness goals more quickly with the improvements that are gained such as weight loss, reduced stress levels, shaping and toning are the rewards that help us stick with our workout program and continue to see improvements.

Rowing is also a time-efficient work out and a low impact sport enjoyed by all ages.

Reduce the adverse effects of stress and increased cortisol: Stress causes chemical changes in the body such as increased cortisol levels that, left unchecked, can have negative effects on both mental and physical health. High levels of stress contribute to health issues as diverse as depression, insomnia, heart disease, skin disorders and headaches. Interestingly enough, stress has been the subject of more than 20,000 scientific studies. Even though studies confirm stress can have devastating consequences for our overall health, we sometimes pride ourselves on working longer and harder, staying on top of the competition and working late at the office. This may set us up for the stress cycle. To break free from the vicious stress cycle and stave off emotional fatigue and depression, try regular rowing along a local waterway. Your overall health will improve as your tension melts away with each breath of fresh, negative ion rich air.

Be environment friendly: Lastly while rowing you abstain from using an outboard motor and can enjoy the added peace of mind knowing you are not contributing the abrasive sounds, awful smell and heavy pollution levels of outboard power boating. For further information on this I recommend the book "Polluting for Pleasure" by Andre Mele. In 1993 his initial calculations showed that 50 million gallons of oil per year, or the equivalent of 5 Exxon Valdes oil spills were being released by pleasure boaters into the US waterways per year. In the end he concluded that outboard pleasure boating produces as much hydrocarbon pollution as all the road vehicles in America.

Aside from full body conditioning which builds lean muscle mass while burning 600 calories per hour, rowing allows you to release stress, lose weight and reduce your blood pressure. It's a great opportunity to enjoy movement and your connection with the water as you take each stroke. It can also be the opportunity to push yourself beyond limits you ever thought possible.

Rowing Safety and Attire

Like all aquatic sports, rowing requires basic safety equipment, appropriate clothing, and procedures to prevent serious injury or potentially loss of life. Following are a few important, general guidelines. Additional details and procedures unique to NRR can be found on the page titled "Policies and Procedures" on page 18.

1. Before you can row at NRR, you must certify that you are able to swim. For additional safety, we require that every boat have a "Personal Flotation Device" (PFD) on board
2. Rowers should study, understand and obey the traffic rules, restrictions and hazards of all waterways on which they intend to row, train or race.
3. Assess the weather conditions before rowing. Do not row if a lightning storm seems imminent or when visibility is poor (due to fog or heavy rain).
4. Review the weather forecast before rowing in inclement conditions. If in doubt, always seek the advice of an experienced coach or rower.
5. All shells navigating between dusk and sunrise must carry a white light clearly visible from all angles. Boat crews should check their courses regularly and be aware of boats that might change course without notice.
6. Protect yourself from the effects of extreme heat and sun. Hydrate, wear a hat, a long-sleeved training top, water-resistant sunblock and sunglasses.
7. Make sure to warm up adequately prior to any strenuous training session or race.
8. Know how to get into a boat if you flip.

Rowing Clothing Basics

Appropriate rowing attire is important for safety, performance, and health, especially during the colder and wetter weather.

The best clothing for rowing is soft, stretchy, breathable, and fairly form fitting. Since loose shorts can get caught in the slides under the moving seats, avoid basketball-style shorts or warm-ups. Likewise, since loose tops can get wrapped around the oar handles, it is best to avoid bulky jackets or sweatshirts.

Dress to retain body warmth in cold weather to prevent injuries and/or hypothermia. Good choices include hats, tights, thermal long sleeve tops, and appropriate jackets or vests.

Synthetic fabrics, such as polypro and Coolmax/DryWick are best, as they repel water while keeping you comfortably warm or cool. Wool has similar wicking properties. Cotton does not work well, as it does not wick moisture and tends to feel cold and clammy once it gets wet.

Here are several online retailers for rowing apparel, gear, and accessories:

<http://www.row2k.com/rowingmall/>

<http://www.jlracing.com>

<http://www.sewsparty.com>

<http://www.regattasport.com>

Navesink River Rowing has an online store at <http://www.power10sports.com>. To purchase NRR-branded merchandise, select "Navesink River Rowing" from the list of clubs in the pull-down menu. Enter "NRR" as the password. Items available in the store include tops, rowing trousers, jackets, hats, pouches, and duffel bags.

Types of Rowing Shells

There are seven classes of boats, four of which are for sweep-oared rowing (the rower has one oar and rows it with both hands) and three of which are for sculling (the rower has two oars, one in each hand).

Some of the sweep-oared boats carry a coxswain, who sits either in the stern or in the bow to steer the boat and provide direction or encouragement to rowers.

The boat classes are these:

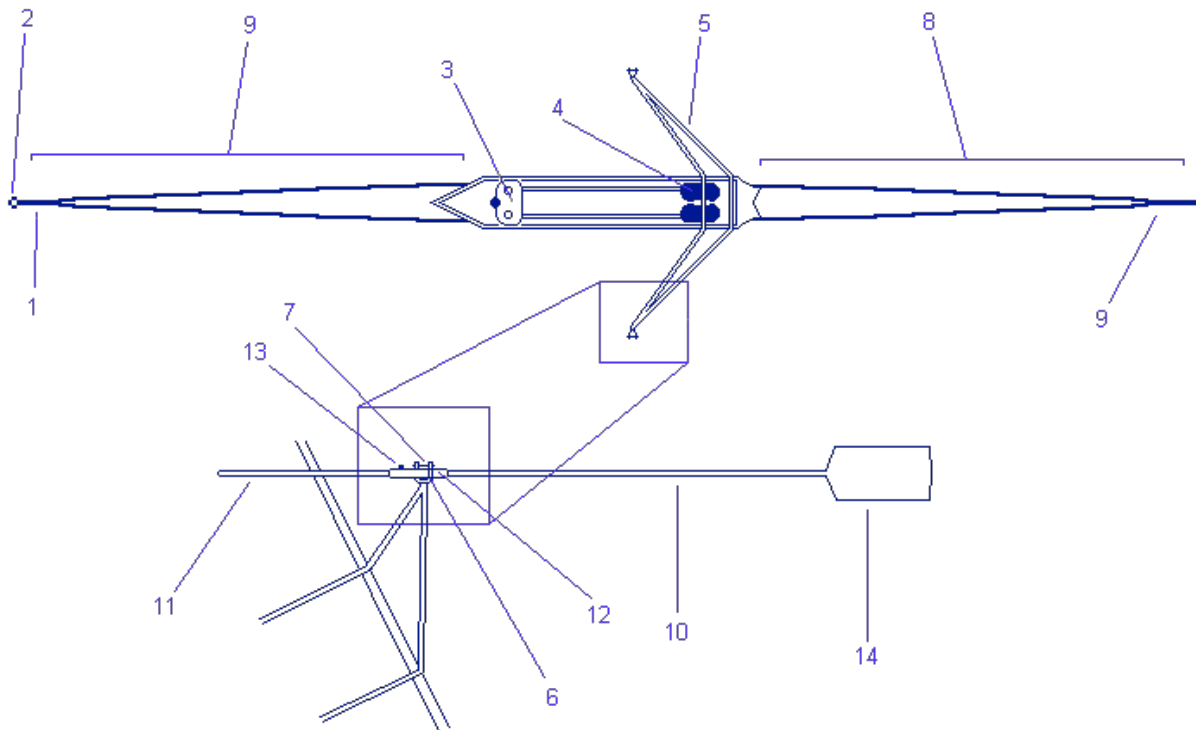
Sculling boats

- 1x single 21' trainer, 24' recreational, 26 or 27' racing
- 2x double approximately 34 feet long
- 4x quad approximately 44 feet long

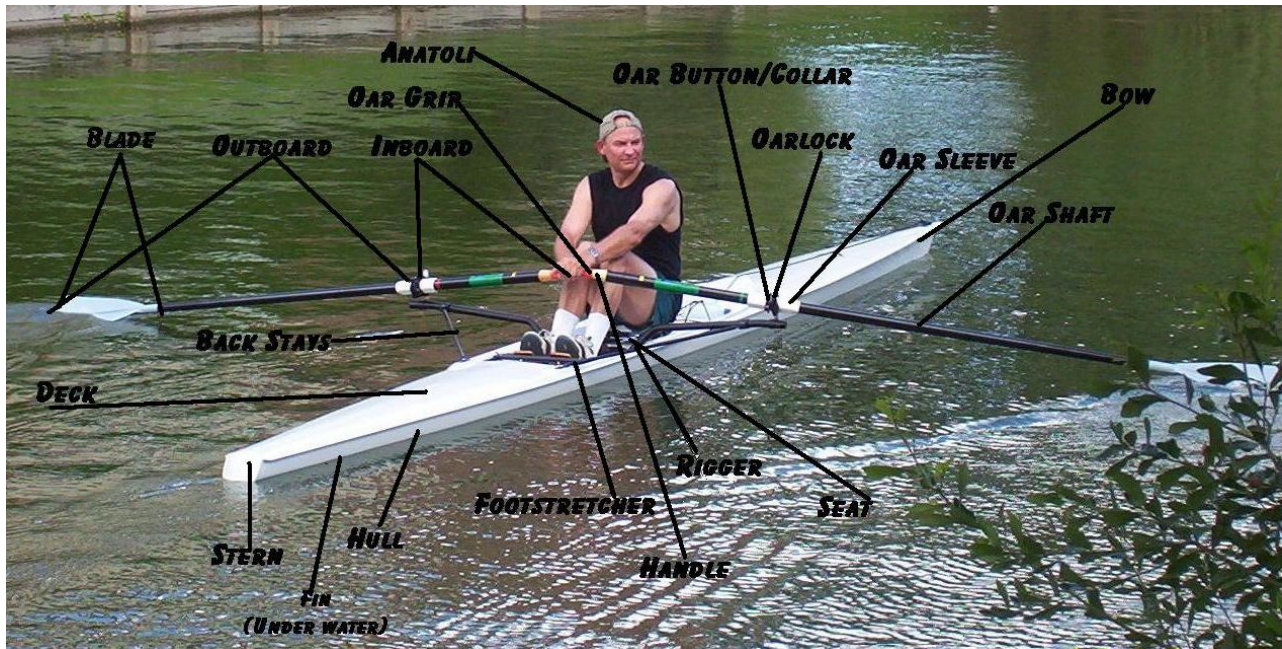
Sweep boats

- 2- coxless pair
- 4- coxless four
- 4+ coxed four
- 8+ eight

Diagram of a Rowing Shell



1. **Bow**- the forward section of a boat, the one pointing in the direction you are traveling. In a rowing shell, this is physically behind you.
2. **Bowball** - a rubber ball attached to the bow tip of a shell to protect against damage and injury in case of a collision
3. **Seat** - the sliding seat that the rower sits on
4. **Foot stretcher** – an adjustable plate with a pair of shoes or a set of straps attached to hold the rower's feet
5. **Rigger** – a framework attached to the shell and used to support the oarlock
6. **Oarlock** – a U-shaped device on a boat's rigger that holds the oar; it swivels to allow the oar to swing.
7. **Gate** – a bar across the oarlock to prevent the oar from popping out
8. **Deck** - the areas of a shell at the bow and stern
9. **Stern** – the back part of a boat - the last to arrive wherever you are going. In a rowing shell, the stern is physically in front of you.
10. **Oar** - a long shaft with a blade at the end, used as a lever to propel and steer a boat through water
11. **Handle** - the part of an oar held by the rower
12. **Sleeve** - the plastic jacket on the shaft of the oar where the button or collar is mounted
13. **Button** - a collar around the shaft of the oar that keeps the oar from slipping through the oarlock; can be re-positioned up or down the oar to increase or decrease leverage
14. **Blade**- the flattened, hatchet-, or spoon-shaped part of an oar that touches the water during rowing



Equipment Check

Before you take off on a row, check the following:

Foot stretchers - set to the appropriate position for your height, flexibility and stroke
 You may need to adjust the foot stretchers after you get into the boat. Make sure the wing nuts on the stretchers are only finger tight or you will need a tool.

Seat - facing the proper direction.

On most seats there is an indentation on one side to make room for your tailbone. Make sure this faces towards the bow. Remember "crack toward my back."

Tracks - free of debris and sand so your seat will roll smoothly.

Riggers - Check the nuts on top to make sure they are snug.

Drain plugs - in and fitting snugly. After you row, release the drain plugs to let out any water that might have gotten into the boat.

Oarlocks - with gates closed until you are ready to insert the oars. If they are left open, they can flop around and get bent. Once oars are in, make sure that gates are full closed and tightened.

Fingernails and Rings - You will find long fingernails and sharp rings painful when you row. Most rowers keep their nails clipped short and leave their rings at home.

Putting the oars in the oarlock

Swivel the oarlock so that the oarlock is parallel to the boat and the knob of the closed gate is pointing in the same direction as your toes will be. Unscrew the knob and open the gate.

Place the narrow portion of the shaft near the blade into an open oarlock and slide the oar so that the collar meets the inboard side of the oarlock (the side closest to the boat).

Important: Close the oarlock gate before getting into the boat. Failure to do this may result in the oar coming out of the oarlock unexpectedly, potentially causing your boat to flip.



Adjustments

1. Rigger height off the water can be set using the spacer washers on the oarlock pin. The hands should feather just above your navel. Due to left-over-right rigging height, your left hand will be slightly above your right.
2. Foot stretchers should be positioned along their notched tracks to accommodate the length of each rower's legs. They should be set so the rower does not hit the end of the seat track at either end of the stroke and so thumbs just grazes the stomach when feathering. Initially, your coaches will help you make the appropriate adjustments for your build. Once you know what they are, you will want to make similar adjustments as needed whenever you row.

Transporting and Caring for the Shell

Please use care in handling, storing, and transporting your shell. It is always preferable for two people to carry one single. Your coach will demonstrate a method for one person to carry a shell down to the water.

Your boat should be washed down with soap and water after each use and properly stored on the corresponding numbered rack you took it from. Wash your boat on slings before returning it to the rack.

The sculling oars should also be cleaned after each use. Rinse the grips, shafts, and both sides of the blades with clear water to remove any dirt or grime.

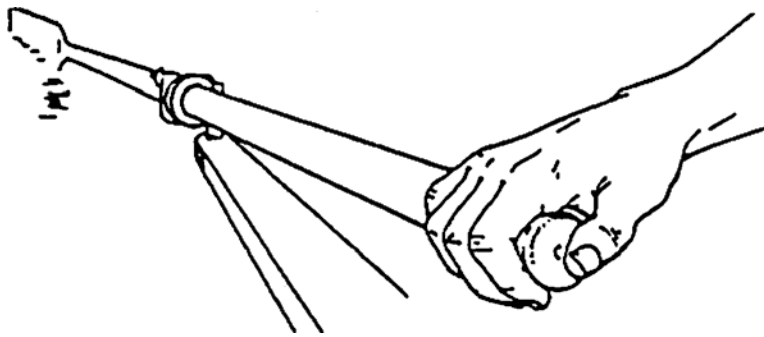
Start a routine clean up and maintenance check after each row and report any missing parts or damage in the logbook.



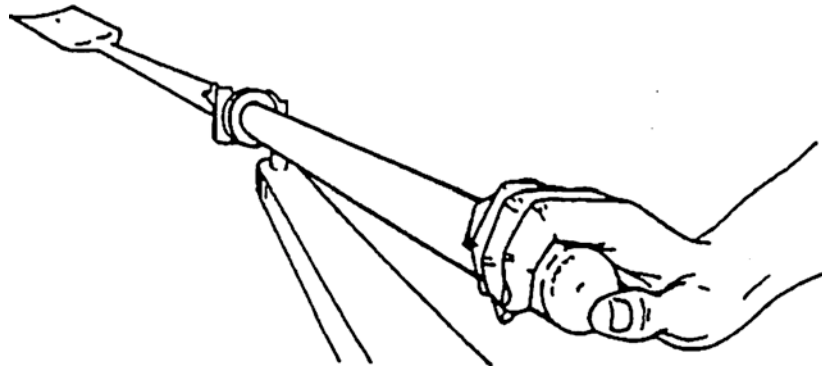
Grip

It is important to learn the proper grip for holding the oars.

- The proper grip is relaxed with the fingers wrapped around the handles and the thumbs on the ends.
- Maintain pressure on the end of the handles to push the oars against the collars/buttons. Keep the heels of the hands away from the handles by using the fingers to grip the oars.
- Keep the wrist flat during most of the drive and recovery.
- Feather and square the oars by rotating the handle in the hook of the fingers without bending the wrists.

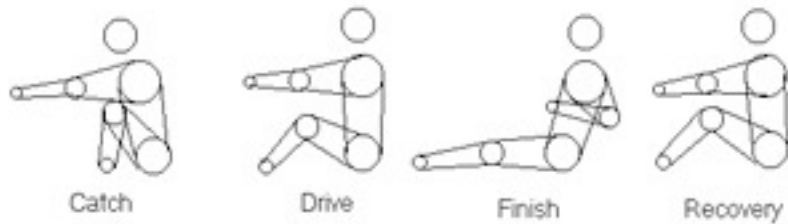


A relaxed grip is one with your thumbs at the end of the handles. This allows you to exert pressure towards the oarlocks throughout the stroke.



To feather or square the oars during the stroke, rotate the handles in the hook of your fingers. Keeping your grip light (relaxed) will help you do this more easily.

The Rowing Stroke



Catch (or Entry) - The point where the blade enters the water. The legs are compressed in a 90-degree angle, the arms are stretched out, and the body is angled forward

Drive - the part of the stroke where the legs are pressing down, sending the body to the bow. Then the back and arms swing backward.

Finish (or Release) - the point at which the rower pushes down on the oar handles to pop the blades out of the water and begins to push the hands and arms out of the bow

Recovery - the time spent pulling the body back up to the catch; first the arms extend, then the body angle is set, and finally, the legs are **slowly** drawn up to the catch.

On the square - keeping the blades perpendicular to the water on the recovery

On the feather - keeping the blades parallel to the water on the recovery

Proper Posture

Back

Keep your back as straight as possible without being stiff. Sit up tall, shoulder straight but relaxed. Chin up. Do all pivoting at the hips.

The benefits include

- a better connection between back and legs.
- more room over thighs and legs to feather.
- more room in rib cage for lungs and deep breathing.
- a stable platform against which the arms can draw for a steadier finish.

Shoulders

Try to hold the shoulders steady throughout the drive and make sure that they are in a horizontal plane. The blade should be inserted by lifting just the hands, and the boat should be propelled forward with the leg drive.

The benefits allow you to

- keep the body weight moving horizontally to allow the boat to run more efficiently.
- keep the legs strong and quick.

Head

Try to keep the head in the same horizontal plane throughout the stroke cycle; jaws and face relaxed.

Proper Body Control at the Catch

Start with proper body angle established at the finish. Move hands away; pivot at the hips to set body angle while the legs are still down, then come up the slide to about one inch before the forward stops. Anticipate the catch, stop the forward momentum of your slide, and reverse direction.

Proper Connection at the Catch

Lift hands slightly to drop the blades into the water. Brace the back and use the legs as prime movers throughout the drive. For every inch you drive, you move the oar handle a corresponding inch.

Proper Control at the Finish

Open back sharply and quickly after the legs are used up. Back swing should be no more than 0-15° past perpendicular. Use your abdominal muscles to keep from slumping or rolling back onto lower back.

For Safe and Enjoyable Rowing

How to Stay Upright and in the Boat

A common worry among new rowers is flipping the boat. It seems like a distinct possibility when you are new to sculling, for the singles sometimes feel somewhat tippy. Yet, this is actually a relatively rare occurrence and is fairly difficult to do if you hold onto both oars and keep your oar handles together. You can get a sense of this from the Safety Position you learn on the first day of beginner lessons (back straight, legs slightly bent, arms extended and hands together). Separate your oars and raise one or the other and the boat suddenly becomes very unstable. Bring your hands back together, and the boat becomes stable once more. If you find yourself in an unstable situation (you have grazed or hit a buoy, or you have encountered a large motorboat wake), hold your oars together and assume the Safety Position. This will keep you from tipping.

Flipping, Falling out and Getting Back in

Once it becomes clear that you are going to tip, don't fight it. Get back into your boat by following these steps:

1. Right your shell. You might need to reach over the hull and pull on a rigger.
2. Grip both oar handles with one hand.
3. Place your other hand between the tracks on the slide.
4. Push yourself up. You might need to kick your legs.
5. Swivel your body and swing your bottom onto the shell.
5. Lift your legs in.
6. Another method is to pull your torso onto the shell far enough so that you can swing your legs over to straddle the boat.

Watch this video of a tip test (flip test) on YouTube to help prepare for your own test:

<http://tinyurl.com/a29pwfe>

Catching a Crab

"Catching a crab" occurs when you bury a blade deep in the water and it seems to get stuck. To extract the blade, press down on the oar handle using very little wrist. Push the oars away sharply with firm wrists just slightly flexed. Feather your oars *after* your blades are extracted.

Waves and Weather

As a sculler, you need to do whatever you can to stay out of trouble because you are the most vulnerable boat afloat. Be aware of waves and weather - and the motorboat traffic on the river. Sometimes you will be able to avoid wake from motorboats. But sometimes that avoidance will not be possible.

When you see a boat with a threatening wake, move away from its course. As the first wave comes near, turn parallel to it so the boat will lift evenly. Keep both blades in light contact with the water and let the handles move upward and downward as the wave passes under you.

If a motor boat is approaching from the stem, change course 30 to 40 degrees away from the projected course of the vessel until its wake nearly reaches you, and then turn back toward the motor boat in order to meet the wave parallel to it. Rowing diagonally away gives you more time to put distance between you and the boat wake than if you have turned at right angles. In the wake, stop rowing and hold the oar handles loosely as your boat rises and fall.

Policies and Procedures

Shell Selection: NRR makes a variety of single shells and multiple seat shells available to members. Row only the classes of shells that are suitable for your ability level. If you are unsure about which shells are best for you, consult a coach. Always return your boat and oars to the same rack from which you removed them.

Logbook: NRR maintains a monitored logbook to keep track of members on the river at any time, to convey river conditions to fellow rowers and to note problems with boats. All rowers, including private boat owners, must log out each time they launch and log in when they return. **The log is located in the main shed on the desk top to your left as you enter.**

Personal Flotation Devices (PFD): For safety, wear a personal flotation device or have one on board each time you row. NRR-owned life vests (found in the shed) are unwieldy to row in but can be placed behind the foot stretchers in most shells. You may choose to purchase an inflatable vest or fanny pack that can be worn comfortably while rowing

Traffic Pattern: Unless prohibited by weather, row east (towards the Oceanic Bridge in Rumson) on the south (Fair Haven) side of the river and west (back toward Red Bank) on the north (Middletown) side. This counterclockwise pattern greatly reduces the risk of colliding with another rower.

- Cross from one side of the river to another with your shell perpendicular to the shore. Angling across has been the main cause of collisions in recent years.
- The area between the mooring field (just beyond NRR) and the shore is for *outgoing boats only*. Only use it to return to NRR in severe weather/water conditions or if something is wrong with the boat.
- Watch out for mooring buoys and other obstructions, such as the Osprey Nest, sandbars and other shallow areas (especially at low tide). Check the map hanging on the shed door and posted on our website.
- Finally, do not row in the channel, as this section of the river is where the large powerboats travel. Red and green navigational buoys mark the sides of the channel, and rowers must stay to the shore side of these buoys.

Lights: If you are on the river before sunrise or after sunset, use adequate lighting. Various lighting options (headlamps, stern lights, and bow lights) are available from the retailers mentioned on page 8.

Buddy Up for Safety: All rowers are encouraged to row in pairs or groups.

Youth Rowers: Youth members (under age 18) may use NRR boats and equipment only when under the direct supervision of a coach during rowing sessions designated specifically for youth. Rowers under 18 who want to use their own boats and equipment without the level of supervision described here can do so if their parents or legal guardians agree to it in writing and absolve NRR of all liability.

Visiting rowers with rowing experience may row gratis for one week if they have received permission from the NRR coach and have signed waiver forms.

Damage to boats: If damage (besides normal wear and tear) occurs to any NRR boat each rower using the boat at the time the damage occurs shall be responsible to NRR for the lesser of \$100 or the actual cost of repair. This responsibility applies during any use (including but not limited to) use on the water, transport to the water, or transport to an event; but shall not apply to participants in the youth program or beginner sculling lessons.

Transporting Boats: Any member who wants to transport an NRR boat to a regatta or other rowing location must obtain prior permission from the NRR board.

Launch Use: Only members designated by the board may operate launches and only for official NRR activities. Anyone using an NRR launch must have a New Jersey Boating Safety Certificate.

Use of shells and oars:

- a. Before launching: rowers should close the hatch, and examine their shell for damage or unsafe conditions (such as missing drain plug, hatch, or seat, loose rigger, oarlock, or foot stretcher). Fix any problems before rowing, or red-tag and log problems, and choose another shell.
- b. At the beach: keep shells off the beach. Before getting into the shell make sure the stern is in water deep enough to keep the skeg (fin) from hitting bottom.
- c. After your row: Wash all equipment taken on the water. Wash off all sand, dirt, scum from boats (inside, outside, caring especially for oarlocks, and seat tracks) and oars.
- d. Storage: Carry the boat to its designated rack--the one with the same label as the shell--place it bow in or out (depending on the label which should be showing), and strap it down. Close the oarlock gates; open the hatch. Return oars to the oar shed. Remember to red-tag unsafe equipment.
- e. Log out. Include comments on equipment, weather conditions or other matters as needed.
- f. Lock up if you are the last rower(s) in. Check the log book to see if anyone is still signed out. Look to see if shells are missing from the racks. If not, lock the shed before you leave.

A few words about weather: we recommend that you check the forecast before you row and follow these guidelines:

- a. Lightning: DO NOT row during storms involving lightning. If you can see lightning, even at what seems to be a big distance, DO NOT GO OUT. If you spot lightning while on the water, GET IN ASAP. If it starts to storm, pull into the nearest shore and wait it out.
- b. Wind: Winds of more than 5 mph from the EAST or WEST pose a major challenge for rowers. Many of us avoid rowing under those conditions. Others take out more stable boats and stick to rowing back and forth in one of the coves or near the Cooper Bridge. We recommend the former.
- c. NORTH and SOUTH winds are tolerable at higher rates and can be coped with by rowing along the shore on the side of the river the wind is coming from. If this places you against traffic patterns, be extra careful about looking out for other rowers who won't be expecting you there.
- d. Usually, if you see whitecaps on the water or sailboats being bounced around a lot in the boat mooring field, you are better off not rowing.

Remember: the sun is almost always stronger than you think it is. Protect yourself with sunscreen. Wear a hat or visor. Mosquito repellent is also recommended.

Rowing privileges may be suspended or revoked by vote of the Board of Trustees for rowers who do not follow NRR policies.

BEGINNER CONTINUATION MEMBERSHIP



You've finished your Adult Beginner lessons and want to keep rowing . . . here's how.

Each year, Navesink River Rowing offers a special **Beginner Continuation Membership** to that year's Adult Learn-to-Row graduates.

- Use NRR boats, equipment and facilities for the remainder of the season - from the date you complete your lessons through November 1st.
- Participate in NRR programs, such as Master's Crew Workshops or get additional coaching, if you'd like.

This membership includes a brief, but mandatory orientation session, which all rowers new to NRR and the Navesink River - beginner or not - must take.

You can complete your orientation at the end of your fourth lesson or attend a New Member Orientation session by contacting Susan at 732-863-1321 or nrrnews@gmail.com

To become a Beginner Continuation Member, you will need to submit a [2013 Adult Membership Application](#) - also available from your coach.

The Beginner Continuation membership is available only to *this year's* Adult Beginner Lesson graduates. Previous season's graduates are eligible for Boat Use memberships and may choose to take a [Refresher Session](#).

GLOSSARY OF ROWING TERMS

Blade: the oar, also the end of the oar that is placed in the water

Bow: the forward section of the boat; the first part of the boat to cross the finish line; the person in the seat closest to the bow who crosses the finish line first.

Bowball: a rubber ball that protects the boat against damage in case of a collision

Button: a wide collar on the oar that keeps it from slipping through the oarlock

Catch, or Entry: the moment the blade first enters the water

Check: an unwanted motion of the boat when it appears to momentarily stop in the water

CLAM: Clip-on Load Adjusting Mechanism (C.L.A.M.) - a device that slides on and off the shaft of an oar to quickly adjust the inboard of an oar or scull. Adding one C.L.A.M. increases the inboard by 1 cm, decreasing the load the rower feels on the oars.

Crab: a stroke that goes bad. The oar blade slices the water at an angle and gets caught under the surface. The blade is not fully feathered before leaving the water. This results in the blade being stuck in the water, severely slowing the boat down and throwing off the set. This term is from the claim that "a crab grabbed the blade and wouldn't let go." "Crab" is also used to describe when a rower's blade jams in the water and he/she finds it impossible to get the oar out of the water at the end of the pull-through.

Crew: The term "crew" is used in American schools and colleges to designate the sport of rowing. When outside of the academic sphere, then the sport is known as rowing. The British and European universities and schools have rowing clubs, not crew clubs. When you use the term crew, you do not need to use the term team. To say crew team is redundant.

Deck: the part of the shell at the bow and stern that is covered with fiberglass cloth or a thin plastic

Drive: the part of the rowing cycle where the rower applies power to the buried blade

Double: a shell with two scullers

Ergometer: Rowers call it an "erg." It's a rowing machine that allows a person to approximate the actual rowing motion.

Feathering: turning the oar blade flat during the recovery to lessen wind resistance

Fin, or Skeg: a small flat appendage located along the stern section of the hull which helps stabilize the shell in holding a straight course

Finish, or Release: the oar blade leaving the water at the end of a stroke

FISA (short for Federation Internationale des Societes d'Aviron): the international governing body for the sport of rowing in the world, established in 1892

Gate: the bar across the oarlock that keeps the oar in place

Gunnels, or Gunwales: the top edges of the shell-- the riggers are bolted into them.

Heavyweight: a rowing category where there is no maximum weight

Hull: the outside skin of the boat

Inboard: the distance from the end of the handle to the blade-side face of the collar or the C.L.A.M. The greater the inboard, the lighter the oar or scull will feel in your hands, and the lighter the load will be when pulling through the water.

Insert, or Spacer: the plastic bushing fitting on the top and bottom of an oarlock

Jumped Seat: the unpleasant event that happens when a rower slips off his seat while rowing

Jumped Slide: when the seat comes off its slides

Keel: the centerline of the shell

Lightweight: refers to the rowers, not the boats; there is a maximum weight for each rower in a lightweight event, as well as a required boat average.

Oar: used to drive the boat forward: rowers do not use paddles

Oarlock: the D-shaped device at the end of the rigger in which the oar rests. There is a locking gate at the top to keep the oar in place.

Outboard: the distance between the tip of the blade-side face of the collar or C.L.A.M. The greater the outboard, the heavier the oar or scull will feel and the greater the load in the water will be.

Port: left side of the boat when facing the bow. In a rowing shell, "port" is "right," since rowers face the stern of the boat.

Power 10: a call for rowers to do ten of their best, most powerful strokes. It's a strategy used to pull ahead of a competitor.

Puddle: the effect in the water caused by the movement of the oar, particularly at the end of the stroke

Quad: a boat with four scullers

Racks: wood or metal structures in the boathouse used to hold the shells

Ready-All, Row: starting command for most races

Recovery: the time between drives, when the blade of the oar is traveling through the air

Rigger: the triangular shaped metal device that is bolted onto the side of the boat and holds the oars

Rudder: the device used to steer the shell

Run: the run is the distance the shell moves during one stroke. You can calculate it by looking for the distance between the puddles made by the same oar.

Sculls: another word for “oars.” Sculling boats require each rower to use two oars, or sculls, to propel the boat forward.

Shell: can be used interchangeably with “boat”

Single: a one-person shell

Sky: the effect of lowering the handles of the oars so much that the blades are high above the water

Slide: the set of runners for the wheels on each seat in the boat

Starboard: the right side of the boat, while facing the bow. In a rowing shell, “starboard” is “left,” since the rowers face the stern while rowing.

Stern: the rear of the boat; the direction the rowers are facing

Stretcher, or **Footstretcher:** where the rower’s feet go. The stretcher consists of two inclined footrests that hold the rower’s shoes. The rower’s shoes are bolted into the footrests.

Stroke: the rower who sits closest to the stern. The stroke sets the rhythm for a multiple-seat boat; others behind him/her must follow his/her cadence.

Stroke coach: a small electronic display that rowers use in the boat to be able to know important race information such as stroke rate and elapsed time.

Swing: the hard-to-define feeling when near-perfect synchronization of motion occurs in the shell, enhancing the performance and speed