



Cambridge University Combined Boat Clubs

# Novice Coaching Manual

## Before the First Outing

- Novice rowers should sign the College's consent form stating that they are able to swim at least 100m in light clothing in the event of capsize.
- Give a tour of the boathouse and introduction to equipment and jargon
- Understand coxes' commands (particularly how to 'hold it up')
- How to get the boat on and off the rack properly
- How to carry the boat and blades
- How to adjust the foot stretcher position
- How to get in to and out of the boat properly

## Rules of the River

- All coxes must wear a lifejacket
- All novice crews must be accompanied by a coach on the bank
- White lights must be carried on both the bow and stern of boats out within 15 minutes after lighting down or before lighting up
- No crew is permitted to be on the water during hours of darkness (CUCBC website)
- No College crew is permitted to boat before 11:00 at weekends during Full Term
- No novice crew may boar before 07:30 or within 15 minutes of lighting down (whichever is later)

## The Flag

The flag status is shown on the CUCBC website ([www.cucbc.org](http://www.cucbc.org)) and defines which crews may boat given the conditions.

|            |   |
|------------|---|
| Green      | No restriction on which crews may boat  |
| Yellow     | Boating restricted to <ul style="list-style-type: none"><li>• First boats</li><li>• Crews in the top 2 men's and 1 women's divisions of the May Bumps (no novices)</li><li>• Smaller boats made up of these crews</li></ul> |
| Red/Yellow | Boating restricted to <ul style="list-style-type: none"><li>• University crews</li><li>• Tub pairs (above Chesterton Foorbridge)</li></ul>  |
| Red        | No crew may boat  |

The flag is a guideline. At the end of the day, it is up to the crew, cox and coach whether it is appropriate to boat. Do you think it is safe? Can your cox and crew handle the conditions?

Always consider if it is safe to boat. It may be unsafe to boat due to

- Wind
- Stream – can your cox and crew control the boat
- Fog – can you see where you are going? Is it appropriate to carry lights?
- Ice – do not boat if ice extends more than 10cm from the bank

## Navigation

Always navigate on the right-hand side of the River (if you are facing forwards), except between the crossover points (downstream of Ditton Corner and in the Gut) where you navigate on the left.

Change side of the river at the crossover points. Crews coming upstream have right of way. If another vessel is crossing, stop and wait. Cross over as quickly as possible. Never stop on the crossover points.

## Spinning

Never spin in front of another crew and consider if you have room to get round (the Cam gets narrow!). Spin quickly and once round, get over to your side of the River as soon as possible. Don't sit blocking the River!

## Overtaking

Slower crews should let faster crews overtake, but only overtake if it is safe to do so (*i.e.* there are no crews coming the other way and never overtake on corners or at the crossover points). Always ask the crew you are overtaking if you may "come by" and wait for a response. Get past the crew and back to your side of the River as quickly as possible.

## Collision with Moored Boats

If a crew collides with a moored boat, they should stop the boat ('hold it up') and pull in their blades. Back down with stern pair if possible to get free. If provided, push off of fenders (or tyres) on the moored boat. If there are no fenders, always push off above the water line so that any damage can be seen. Apologise to the owner of the boat!

## Congestion

The River can get very busy, particularly in the early mornings. Where possible, try to avoid outings before 9am. Outings will be more productive when the River is clearer later in the day.

At busy times, please be considerate to other crews (and other river users). Do not stop in front of other boats and keep the traffic moving. When moving in a queue, row with at least half of the crew at half slide, then do exercises when the river is clearer.








At all times, be considerate and polite to others. Do not be aggressive. Everyone has to learn at some point!

## Noise

Before 07:30, coaching from the bank is prohibited upstream of the Railway Bridge and use of cox boxes must be kept to a minimum (essential commands only at a low volume). The use of loudhailers is prohibited anywhere on the river before 07:30.

CUCBC will be monitoring the noise levels in the early mornings and if noise gets out of control, all college rowers are liable to lose access to the river in the early mornings by order from the City Council. Please be considerate to the local residents!

## Basic Technique

|   |   |  |
|---|---|--|
| <p><b>1.<br/>Stretch</b></p> <p>Occurs from finish position</p>                   | <p>1 Hands lead out with loose grip on oar (feathered).<br/>                 2 Let go of tension in knees, but DONT SLIDE yet.<br/>                 3 Handle continues to move away, drawing arms then upper body.<br/>                 4 Forward stretch comes from HIPS. (Shoulders forward but loose).<br/>                 5 Upper body is forward &amp; weight moving to bow/stroke side.<br/>                 6 The weight of the oar carried is being in the hands.</p>                    |  <p>A side-view photograph of a rower in a white shirt and black shorts on a rowing boat. The oar is in the water, and the rower's body is leaning forward, illustrating the stretch phase of the stroke.</p>                     |
| <p><b>2.<br/>Control</b></p> <p>Occurs during recovery</p>                        | <p>1 Body loose; weight between seat and feet.<br/>                 2 Shoulders relaxed in sockets.<br/>                 3 Upper body position now ready. No change until blade in water.<br/>                 4 Allow boat to slide under you, lifting knees towards chest.<br/>                 5 Handle and seat travel together.<br/>                 6 Once near your ankles, handle starts to rise, blade squaring.<br/>                 7 Compression of legs by boat nearly complete.</p> |  <p>A side-view photograph of a rower in a white shirt and black shorts on a rowing boat. The oar is in the water, and the rower's body is upright and relaxed, illustrating the control phase of the stroke.</p>                 |
| <p><b>3.<br/>Entry</b></p> <p>Occurs at end of recovery</p>                       | <p>1 With blade fully square, handle rises until spoon covered.<br/>                 2 Body posture unchanged, though weight is leaving seat and<br/>                 3 Moving up onto the feet.<br/>                 4 Blade is buried by the time you are up on your toes.<br/>                 5 Torso is tall but not rigid posture.<br/>                 6 Body is on balance ready to connect.</p>  |  <p>A side-view photograph of a rower in a white shirt and black shorts on a rowing boat. The oar is in the water, and the rower's body is upright and ready to connect, illustrating the entry phase of the stroke.</p>          |
| <p><b>4.<br/>Push</b></p> <p>Occurs at beginning of stroke</p>                    | <p>1 PUSH down from legs causes spoon to engage body weight.<br/>                 2 Hips are light on seat (also engaged to spoon).<br/>                 3 Hip connection forces Back to engage pressure.<br/>                 4 Arms are left hanging off handle.<br/>                 5 Lats fill out because of this pressure.<br/>                 6 Body weight is suspended between feet/hands/spoon.</p>   |  <p>A side-view photograph of a rower in a white shirt and black shorts on a rowing boat. The oar is in the water, and the rower's body is pushing down, illustrating the push phase of the stroke.</p>                          |
| <p><b>5.<br/>Draw</b></p> <p>Occurs in front of pin (i.e. 1st half of stroke)</p> | <p>1 Leg push continues, driving hips to bows.<br/>                 2 This keeps Back fully engaged.<br/>                 3 Back opens dynamically to augment legs.<br/>                 4 Arms still straight but have full pressure from legs/back.<br/>                 5 Leg &amp; Back angles opening and accelerating powerfully.</p>   |  <p>A side-view photograph of a rower in a white shirt and black shorts on a rowing boat. The oar is in the water, and the rower's body is drawing the oar towards the chest, illustrating the draw phase of the stroke.</p>    |
| <p><b>6<br/>Pull</b></p> <p>Occurs behind pin (i.e. 2nd half of stroke)</p>       | <p>1 Legs into final third of push.<br/>                 2 Back pulling hard on handle (via arms).<br/>                 3 As handle travels in past knees, arms break.<br/>                 4 Arms add to legs and back increasing handle speed.<br/>                 5 Pulling with both hands (like bench pull).<br/>                 6 Keep pushing into toes, pulling handle to chest.<br/>                 7 Push and draw into own rigger.</p>  |  <p>A side-view photograph of a rower in a white shirt and black shorts on a rowing boat. The oar is in the water, and the rower's body is pulling the handle towards the chest, illustrating the pull phase of the stroke.</p> |
| <p><b>7<br/>Release</b></p> <p>Occurs at finish of stroke</p>                     | <p>1 Push and draw keeps weight up, out of boat.<br/>                 2 As acceleration stops, oar drops you and boat into water.<br/>                 3 Spoon uncovers itself. Allow puddle to detach from spoon.<br/>                 4 Use momentum to push handle down and away from body.<br/>                 5 Inside hand feathers oar once clear of water.<br/>                 6 All tension is released from body ready for recovery.</p>  |  <p>A side-view photograph of a rower in a white shirt and black shorts on a rowing boat. The oar is in the water, and the rower's body is releasing the oar, illustrating the release phase of the stroke.</p>                 |

## Coaching

- Demonstrate the technique – full technique, then building it up in stages starting with arms only. It is easier to learn first on an erg.
- Build a training programme and co-ordinate between coaches for consistency between sessions.
- Be positive, e.g. a ‘compliment sandwich’ (“you’re doing \_\_\_\_ well, but I want to try \_\_\_\_ to help \_\_\_\_, but overall it’s coming on nicely”)
- Have a briefing before the outing. Recap previous sessions. Describe what you will be doing today and why.
- Debrief after the outing to consolidate and discuss points to think about next time.
- Coach the crew as a whole as well as individuals.
- Work on one thing at a time, but change the focus occasionally and revisit things.

## When to Coach

When to coach the crew depends on their athletic ability.

Beginners will not be able to listen, think and change while they are actually rowing. Coach them when they have stopped and maybe get them to try it out, then reinforce with calls while they are moving.

More advanced athletes will be more able to listen, think and change while rowing, depending on the complexity of the change to be made. Keep calls concise while they are rowing and reinforce the change with discussion when stopped.

## Example Training Programme

|  |  |
|--|--|
| <p><b>Stage 1</b></p> <ul style="list-style-type: none"> <li>• Learn about overall boat safety</li> <li>• Basic technique</li> <li>• Use and effect of oar (e.g. grip, feathering &amp; squaring, handle heights and change of direction)</li> </ul> | <p><b>Session 1</b></p> <ul style="list-style-type: none"> <li>• Tour of boathouse, introduction to equipment, safety</li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Getting boat on and off of rack</li> <li>• Carrying boat and putting it on the water</li> <li>• Adjusting stretcher positions</li> <li>• Getting in and out of the boat</li> <li>• Pushing off and landing the boat</li> <li>• Messing about/confidence exercises – tapping/balance</li> </ul> |
|  | <p><b>Session 2</b></p> <ul style="list-style-type: none"> <li>• <i>Warm-up &amp; stretching exercises</i></li> <li>• On the <u>ergo</u></li> <li>• <u>Explain</u> drive phase (push, draw, pull, release)</li> <li>• <u>Execute</u> drive phase</li> <li>• <u>Explain</u> recovery phase (hands, body, slide)</li> <li>• <u>Execute</u> recovery sequence</li> <li>• Building up and putting it together</li> <li>• <i>Correct faults</i></li> </ul>                              |

|   |   |
|---|---|
| <p><b>Stage 2</b></p> <ul style="list-style-type: none"> <li>• Rough co-ordination of oar/scull</li> <li>• Grasp of boat manoeuvrability</li> </ul> | <p><b>Session 3</b></p> <ul style="list-style-type: none"> <li>• <i>Warm-up &amp; stretching exercises</i></li> <li>• Correct posture on seat</li> <li>• Proper grip of handle</li> <li>• Independent roles of each hand</li> <li>• Confidence that boat will not capsize as long as <u>blades are held on to</u></li> <li>• Correct blade profile through water, with &amp; without slide</li> <li>• Turning boat around</li> </ul>  |
| <p><b>Stage 3</b></p> <ul style="list-style-type: none"> <li>• Refining co-ordination of the rowing stroke (without much power)</li> </ul>          | <p><b>Session 4</b></p> <ul style="list-style-type: none"> <li>• <i>Run through &amp; clarify Stages 1 &amp; 2</i></li> <li>• <i>Warm-up &amp; stretching exercises</i></li> <li>• <u>Explain</u> direction change at front and back end of stroke</li> <li>• <u>Execute</u> drive phase &amp; recovery sequence (build it up)</li> <li>• <u>Execute</u> changes of direction (entry and release)</li> <li>• Put it together</li> <li>• <i>Correct faults</i></li> </ul> <p><b>Session 5</b></p> <ul style="list-style-type: none"> <li>• <i>Recap Session 4</i></li> <li>• <i>Warm-up &amp; stretching exercises</i></li> <li>• Stopping, backing down and turning around</li> <li>• Balancing the boat after paddling and backing down (blades clear)</li> <li>• Paddling with blades off the water</li> <li>• Hand co-ordination - reiterate independent roles of each</li> </ul> <p><b>Session 6</b></p> <ul style="list-style-type: none"> <li>• <i>Recap previous sessions</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Full strokes, executing drive and recovery phase</li> <li>• Arms only. Use of arms during draw phase. Relaxed, loose shoulders. No shoulder movement</li> <li>• Arms only. Handle profile using both arms and outside arm only</li> </ul> <p><b>Session 7</b></p> <ul style="list-style-type: none"> <li>• <i>Recap previous sessions</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Adding exaggerated use of upper body to arms only (swing from the hips, straight back)</li> <li>• Handle profile using outside arm only</li> <li>• Set up rolling through fours continuous paddling (stern four, middle four, bow</li> </ul> |

|  |  |
|--|--|
|  | <p>four)</p> <p><b>Session 8</b></p> <ul style="list-style-type: none"> <li>• <i>Recap recovery and separate task for each hand</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Explain slide and how entry is the last part of the recovery</li> <li>• Exaggerated use of upper body (single strokes then continuous)</li> <li>• Bring in the slide, one stroke at a time (just the drive phase, one stroke at a time)</li> </ul> <p><b>Session 9</b></p> <ul style="list-style-type: none"> <li>• <i>Recap previous sessions</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Legs only rowing</li> <li>• Legs and body</li> <li>• Complete drive phase (single strokes to arms away)</li> <li>• Continuous square blade, full slide rowing</li> <li>• <i>Correct faults</i></li> </ul>   |
| <p><b>Stage 4</b></p> <ul style="list-style-type: none"> <li>• Further refining rowing technique</li> <li>• Changes in pressure</li> <li>• Improvement in rowing rhythm</li> </ul> | <p><b>Session 10</b></p> <ul style="list-style-type: none"> <li>• <i>Recap previous sessions</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Rowing square blades</li> <li>• Improve use of arms rowing arms only, varying pressure</li> <li>• Progress to rowing in sixes then all eight by the end (blades feathered on the water)</li> <li>• No variable pressures rowing all eight</li> </ul> <p><b>Session 11</b></p> <ul style="list-style-type: none"> <li>• <i>Recap previous sessions</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Square blades</li> <li>• Bring in slide. Half slide then full slide</li> <li>• Vary pressures at each stage</li> <li>• All eight, feathered blades on the water</li> </ul> <p><b>Session 12</b></p> <ul style="list-style-type: none"> <li>• <i>Recap previous sessions</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Build up stroke from arms only to full slide. Incorporate this into the warm-up</li> <li>• Rowing all eight, feathered blades on the water</li> </ul> <p><b>Session 13</b></p> <ul style="list-style-type: none"> <li>• <i>Recap previous sessions</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Variable pressures, keeping the <u>ratio</u> as</li> </ul> |

|  |   |
|--|---|
|  | <p>the pressure comes up</p> <ul style="list-style-type: none"> <li>• Improve ratio and rhythm, entry and release at varying pressures</li> </ul>   |
|  | <p><b>Session 14</b></p> <ul style="list-style-type: none"> <li>• <i>Recap previous sessions</i></li> <li>• <i>Warm-up and stretching exercises</i></li> <li>• Timing – every part of the stroke together</li> <li>• Single strokes to arms away</li> <li>• Handle heights, keeping lateral pressure and balance</li> <li>• Rowing all eight, feathered blades off the water</li> </ul> |

## Coxes

In addition to coaching rowers, it is vital to train coxes. Above all the cox should feel like a valued member of the crew. During outings, coach the cox as well as the rowers, giving them feedback and advice on how to improve. Get senior coxes in your club to coach the novice coxes.

A good cox can make a valuable contribution to the development of the crew. Coxes should be familiar with good rowing technique, common problems to look out for and drills they can get the crew to do to improve their rowing.

CUCBC will organise a talk for all new coxes part way through the Michaelmas Term. This will give coxes important safety information as well as useful advice. Coxes should be familiar with the commands in the later section of this manual.

## Land Training

In addition to rowing on the water, training on land is useful for building strength and fitness as well as reinforcing good technique.

## Fitness Training

|   |            |                            |  |
|---|------------|----------------------------|--|
| <b>UT2</b><br>strength-endurance training | 60-80% MHR | 60-90 min                  | Develop a sound aerobic base through continuous exercise for a prescribed time or distance.<br><i>e.g. long erg, run, cycle, swim</i>            |
| <b>UT1</b><br>endurance training          | 80-85% MHR | 30-40 min                  | Same aims as UT2 but at higher intensity.<br><i>e.g. 10k erg, 5k erg</i>   |
| <b>AT</b><br>Endurance training           | 85-90% MHR | 20-30 min<br>10 min pieces | The maximum possible intensity before the debilitating effects of lactate set in.<br><i>e.g. fartlek training</i>                                |
| <b>AN</b><br>Anaerobic work               | MHR        | 90sec –<br>2min            | Maximum physiological response causing high levels of lactate accumulation.<br>Should be carried out with sessions of UT2<br><i>e.g. sprints</i> |

\* Maximum heart rate: MHR = 220 – age



It is important to make not to let novice rowers, particularly those with little sporting background, feel overwhelmed by land training. The appropriate amount of training depends very much on the ability of the athlete and will develop over time. Start with a gentle programme and gradually build it up. Above all, keep the land training sessions enjoyable, for instance training together in crews or groups.

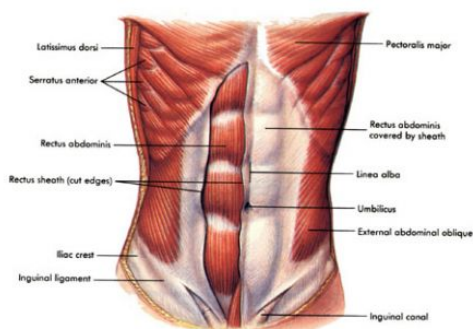
### Strength Training

Strength can be developed through weight training and circuit training (which will also improve endurance).

Weight training must only be carried out after proper instruction, particularly if using free weights to reduce the risk of serious injury. It is important that a weight training programme trains antagonistic sets of muscles to maintain muscle balance (e.g. exercising both the quads and hamstrings) and that stretching exercises are also completed to maintain and improve flexibility.

Muscular strength is best developed through hypertrophy, achieved in 3 sets of 12 repetitions with the maximum weight the athlete can manage. Endurance and lactate tolerance can be improved through lifting lighter weights more times, e.g. 2 sets of 60 repetitions. Appropriate recovery time should be allowed between sessions (i.e. a maximum of one weight training session every other day).

### Core Strength and Stability



The core muscles are vital in rowing to maintain a strong posture and to transmit the force from the leg muscles, through the body, to the oar handle.

Novice rowers should be taught where their core muscles are located. One way to do this is to breathe out through the ears while holding the nose – the core muscles are those that tense. The core consists of more than just the abs! There are a large number of muscles in this region that support the body.

There are many exercises to improve core strength and stability.



Plank

Side plank

Sit-ups

Crunches

Oblique sit-ups or "rockies"

Leg Lifts

## Warming Up

It is important to warm up properly in order to prepare the body for exercise (in terms of the cardiovascular system as well as flexibility) and to reduce the risk of injury.

### Cardiovascular Warm-Up

Raising the heart-rate gradually before exercise for around 10 minutes, either through a short erg (which will also reinforce rowing technique), jogging or running, or through a dynamic warm-up programme (an example of which is shown below).

#### Dynamic Warm-Up 1

##### 1: JOG

30s

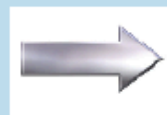
Jog between two points, keeping on your toes, springing off the balls of your feet. Jog forwards one direction, and backwards the other.



##### 2: HIGH KNEE JOG

30s

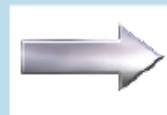
Jog at a quicker pace, bringing your knees above waist height.



##### 3: WALKING LUNGES

60s

Lunge forward onto one of your legs, as you lower yourself make sure you pull the trailing hip forward and hold it for two seconds. Stand up onto leading leg and swap legs. Do not use your arms to push up, shoulders must stay relaxed and low.



## Dynamic Warm-Up 2

### 4: SIDE SKIP

30s

Long side strides swinging arms out as wide as possible as you go, arms swing out as you return to the ground.



### 5: JOGGING LEG CURL

45s

Jog with very short quick steps, every 5th stride lift one heel up to your bum, then snap it back down to the floor quickly. Alternate legs.



### 6: SQUAT JUMP

30s

Squat with arms out to the side touching the ground. Jump into the air, by driving up from legs, opening body and swinging arms across your chest. Land smoothly, and lower back to the start position.



## Dynamic Warm-Up 3

### 7: WALKING TWIST

30s

Start with your knee to waist height and to your side and your upper body twisted in the opposite direction. Swing your knee across your body, simultaneously twisting your upper body the opposite way. Take a few steps forward and repeat starting with the opposite leg.



### 8: CAN CAN WALK

45s

Walk, lift knee above waist height, keeping knee as high as possible straighten leg out. You must make sure that as you do this that you keep your upper body totally vertical. Keep arms loose and swinging at all times.



### 9: BOUNDING VERTICAL JUMPS

30s

Getting as much height as possible, stretch your right arm as high as possible whilst throwing your left arm behind you. As you are doing this bound off your right leg raising your left knee as high as possible. Height not forward distance is the aim.

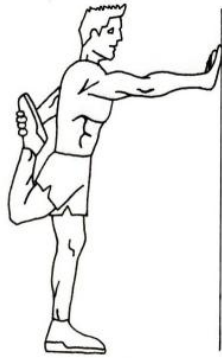


## Stretching

Stretching as part of the warm-up as well as at the end of a training session will improve flexibility of muscles and reduce the risk of injury during exercise. Muscles should not be stretched while cold, rather stretching should follow the cardiovascular warm-up.

Hamstring flexibility is particularly important in rowing, allowing the athlete to achieve length of the stroke off of back-stops while keeping the back in a strong, relaxed position and not overreaching at the catch. The major working groups of muscles should also be stretched, including the quadriceps, gluteals and anterior and lateral deltoids (shoulders).

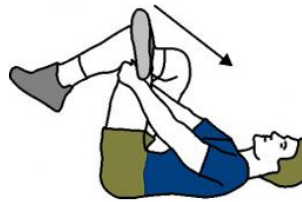
Some examples of useful stretching exercises are shown below.



Quadriceps



Hamstrings



Gluteals



Shoulders

## How to Boat Properly

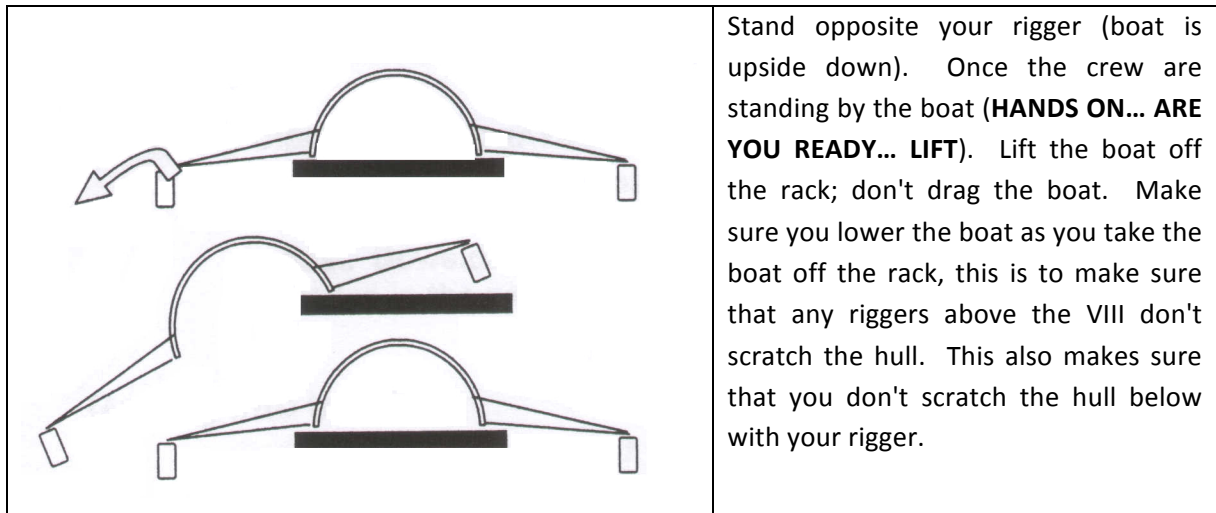
### When does the outing start?

When you meet up and discuss the outing plan.

### Assembling Together

Get together and discuss the outing plan, from then on no more talking from the oarsmen. Listen out for the cox's commands.

#### (HANDS ON)



### Carrying Boat Out of Boathouse

Stand opposite your rigger, face out of the boathouse and carry the boat making sure you keep both hands on the boat. (*Walking out of the boathouse minding the rigger*), walk out of the boathouse in a straight line until the cox says (*Stern Clear*). Then you turn the bows so that the boat is facing downstream. Take the boat to the waters edge stopping when you are about 1.5 metres away. (*Stop*).

### Turning Boat Over

(*Turn the boat over keel towards the river*). You then turn the boat over so that the keel of the boat moves towards the river (rigger nearest river goes under boat). You now are standing next to your own rigger. (*Strokeside holding ... bowsides under*). The side nearest the boathouse (strokeside) holds onto the boat whilst the other side (bowsides) slides under the boat and holds onto the boat as well.

### Putting Boat on Water

(*Walk toward the river feeling for the edge . . . gently lower the boat into the water*). Walk the boat slowly to the waters edge until your feet feel the edge of the riverbank, then gently lower the boat into the water.

## Carrying Blades from Oar Rack to Boat

The cox holds the boat at four's rigger. Go and get your own numbered blade and carry it spoon first back to your seat in the boat. Bowside put your blades across, and strokeside put the blades in the gates (making sure the spoon is facing downwards).

## Getting Into the Boat

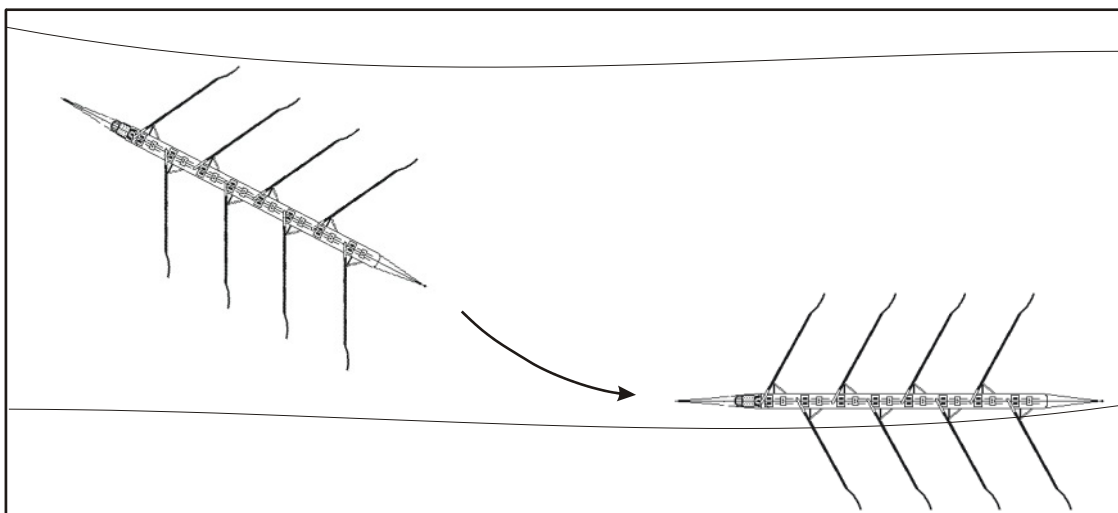
*(Pushing the boat out off the riggers. Strokeside holding your riggers. Bowside hands across ...)* bowside, bend over and put one hand on each saxboard. *(One foot in ...)* Put your left foot in the middle of the boat on the decking (not on the hull). *(Together).* Bring the other foot into the boat and place it directly onto your footstretcher, and sit on your seat on the way down. *(Blades out bowside).* Bowside the blades into gate. Once that is done cox says *(strokeside hands across ...)*. Strokeside, bend over and put one hand on each saxboard. *(One foot in ...)* Put your left foot in the middle of the boat on the decking (not on the hull). *(Together).* All this time the cox holds onto four's rigger.

## Pushing Off the Landing Stage

Once all your feet are strapped into the boat, cox says *(Number off from bow when ready)* and once everybody has numbered off then the cox carries on *(Lean over to bowside, pull the boat in, get ready to push off... 1... 2... 3... push).*

## Getting Back to the Boathouse

### Landing the Boat



Stop the boat about two boat lengths before you get to your boathouse (to make sure the landing area is clear). Cox says *(Easy all... drop)*. Then line yourself up at an angle to come into the bank. Aim the bows for the point on the bank where you want the cox to end up. Paddle in very slowly so as to have control when coming in. Paddle in using bow 4 or pair *(paddle on bow four (pair))*. As you get close just get the crew to lean over to strokeside *(lean over to stokeside)*. The stern will swing in.

### Getting Out of the Boat with Blades

This is the reverse of getting into the boat. Firstly bowside get out *(Bowside out, hands across... one foot out... together... hold onto your riggers)*. Whilst bowside hold onto the riggers, strokeside get

their blades out of the gates. (*Blades in on strokeside*). Then strokeside can get out of the boat once the cox sees that strokeside are ready (*Strokeside hands across... one foot out... together*).

### Taking the Blades from Boat to Oar Rack

The blades must be carried spoon end first back to the boathouse. The cox, meanwhile, holds onto three's rigger.

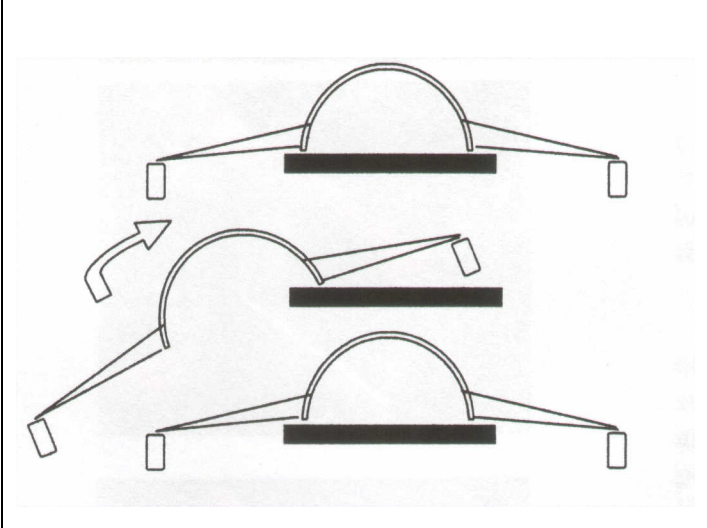
### Getting Boat Out of Water

(*Hands on*) means everybody gets next to their respective seats in the boat. (*Hands on, lifting to waists, 1... 2... 3... LIFT*). Making sure that the hull clears the bank. Now walk away from the waters edge to give some room to turn the boat over (*Walking away from the edge*).

### Turning the Boat Over and Carrying it into the Boathouse

(*Bowside hold onto the boat, strokeside under... turning the boat keel towards the river*). Now carry the boat into the boathouse making sure that after turning the boat over, that everybody ended up opposite their rigger. (*Walking into the boathouse stern first minding the riggers*).

### Putting the Boat Back on the Rack Properly

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|  | <p>Lifting the inside edge onto the rack first then the outside edge. Make sure that the hull doesn't hit any riggers that might be above it, or equally don't scratch the boat below with your riggers.</p> <p>(<i>Bowside under... lowering the outside... 1... 2... 3... lift</i>).</p> |
|--|--|

## Gripping the Handle

The outside hand holds the end of the handle (with the little finger hooked over the end). At arms away, the outside arm is straight and the wrist is kept flat. The fingers are allowed to hook over the handle comfortably rather than tightly gripping the blade. The forearms should be relaxed.

The inside hand is about shoulder-width away from the outside hand. When the blade is squared, the handle is held in the palm of the hand, not the fingers.



## The Outside Hand

The outside hand carries the weight of the oar and is responsible for extracting the blade from the water at the finish and lifting the handle for the blade to enter the water at the catch.

The outside hand draws the handle through on a level plane until it reaches the body (rather than the hands lifting causing the blade to 'dig' into the water — only the face of the spoon should be buried during the drive phase).



At the finish, the outside hand pushes down (pivoting from the elbow, not the shoulders), extracting the blade. At the finish, the outside elbow should be in to the body, not flailing out ('chicken wings').





On the way forward, the weight of the blade is kept on the outside had, again keeping the handle moving on a level plane until the catch. On the way forward (*i.e.* the catch is the last part of the recovery, not the first part of the drive), the outside hand is lifted, allowing the blade to enter the water. The shoulders should be kept loose and relaxed throughout.



The outside arm should not overreach at the catch as this will cause the core to collapse and the back to be in a weak position, meaning that the force is not effectively transferred from the leg drive to the handle.



## Squaring and Feathering

The inside hand is responsible for squaring and feathering the blade. The outside wrist remains flat at all times and the handle is allowed to rotate with the outside hand.

At the finish, the blade is squared after it is extracted from the water. The outside hand pushes down to extract the blade, then the blade is feathered by rolling the handle from the palm to the fingers of the inside hand.



The blade should be fully squared before reaching full extension at front-stops, to make sure that the blade can easily enter the water at the catch. The handle is rolled the fingers to the palm of the inside hand.



## Confidence Drills

Here are a few drills for novices to do in order for them to gain some confidence when they first get in a boat. The idea behind these exercises is for it to be light hearted, but also to gain an idea of how stable a boat really is. It should also give a feeling for how much effect bodyweight has on the trim of the boat.

|   |  |
|---|--|
| Stand up in boat                          | In pairs get the novices to hold onto their blades with one hand and stand up.   |
| Rock the boat                             | Rock the boat from side to side. Make sure they rock the boat to the extreme and also do it slowly. This is supposed to show how you can't capsize as long as you don't let go of the blades.  |
| Spin the boat around                      | Turn the boat around in 360° in both directions. Try and get them to do it as alternate strokes.   |
| Holding the boat up in a straight line    | Paddle off bow four for about five strokes, then easy and <i>gently</i> hold the boat up equally on both sides until the boat stops.   |
| Backing down in a straight line           | Turn the blades around the wrong way and with equal pressure back the boat down for about 10 metres in a straight line.  |
| Blades off the water and balance the boat | Square blades in the water at backstops and on the cox's call all oarsmen should push their handles down to the sax boards and try to sit the boat level.  |
| Sideways maneuvering                      | <p>This is an exercise where you get 2 to paddle on with bows blade and/or 3 to paddle on with 2's blade.</p> <p>2 takes bow's blade and turns it parallel to the boat and takes small strokes. This will swing the bows of the boat sideways without moving it forward.</p> |
| Hold it up stroke                         | Here again paddle off with bow four for five strokes and easy; then get stroke to slowly put his blade into the water (feathered) and watch the stern swing in. This is to be used when maneuvering the boat and when landing the boat.                                      |

## More advanced drills

|          |  |
|----------|--|
| Tapping  | At backstops, extract the blade then place back into the water using the outside hand. Emphasises timing within the crew.  |
| Roll-ups | From back-stops, perform the recovery (can be anywhere from arms-only to full slide) and place the blade in the water at the catch. This emphasizes form on the recovery and timing. |

And as rowers progress, more drills can be introduced to reinforce different parts of rowing.

## Coxing Commands

This is a list of the commands a cox should use, and what they mean. Oarsmen should listen and react to these commands immediately, as their safety could depend on it.

### End of the outing

| Desired Action               | Command   | Notes   |
|------------------------------|---|---|
| Landing boat                 | Paddle on bow four, very light.<br><br>Hold it lightly stroke (to swing the stern in)   | Stop a couple of lengths short of the boathouse: to make sure it is clear. So you can land very slowly, using bow four or pair. |
| Getting out of boat          | Bowside out, hands across... one foot out... together, and hold onto your riggers<br><br>Blades in on strokeside<br><br>Strokeside hands across... one foot out... together   |   |
| Getting boat out of water    | Hands on, lifting to waists, 1..2..3..lift<br><br>Walking away from the edge<br><br>Bowside hold the boat, strokeside under...<br><br>Turning the boat keel towards the river | Watch fin, cox by fin.  |
| Carrying boat into boathouse | Walking into the boathouse stern first<br><br>Minding the riggers   | Cox hold stern.   |
| Getting boat onto the rack   | Bowside under... lowering the outside.<br>1..2..3..lift   |   |

### General Commands for Maneuvering and Safety

| Desired Action                       | Command   | Notes                            |
|--------------------------------------|---|----------------------------------|
| Stopping rowing                      | Easy all... lower   | Lower blades.                    |
| Stop the boat    Normal<br>Emergency | Hold it up (take the run off)<br><br>Hold it hard   | Use a forceful tone of voice     |
| Turning the boat around              | Get ready to spin the boat... from backstops.<br><br>Alternate strokes backing down strokeside, paddling on<br><br>Bowside... are you ready!?... GO | Say this very slowly and clearly |

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|--|--|---|
| Aligning the boat                          | Tap<br>Touch<br>Take a stroke<br>Paddle on x strokes   | Varying amounts of adjustment:<br>Tap = 2-3 inch stroke<br>Touch = ¼ -½ stroke<br>Stroke = a full light stroke<br>Paddle = a few full light strokes                             |
| Sideways maneuvering                       | Paddle on (2 with bow's or 3 with 2's) blade   | A sharp adjustment, especially if you are getting blown into the bank   |
| Assemble at Boat                           | Hands on   | One side has to get under boat  |
| Getting the boat off the rack              | Hands on... are you ready!?... lift  | Boat must be lifted off rack, <u>not</u> dragged  |
| Carrying the boat out of the boathouse     | Walking out of the boathouse minding the riggers<br>Stern clear<br>Stop  | If gap in boathouse is narrow then you will probably have to carry boat out on the ½ turn<br>Cox holds stern.   |
| Turn the boat over at waters edge          | Turn the boat over keel towards the river<br>Strokeside holding... Bowside under   | Riggers nearest water goes under  |
| Putting the boat into the water            | Walk towards the river feeling for the edge...<br>Gently lower the boat into the water   | Make sure the fin does not scrape on the riverbank<br>Cox by fin.   |
| Getting into the boat (one side at a time) | Pushing the boat out off the riggers<br>Strokeside holding your riggers<br>Bowside hands across... one foot in... together<br>Blades out bowside<br>Stokeside hands across...<br>One foot in... together | Bowside <u>have</u> to hold onto the riggers until strokesides blades are in their gates<br>When the oarsmen get into the boat, make sure they don't put their feet on the hull |
| Checking crew is ready to push off         | Number off from bow when ready   |   |
| Pushing the boat off the landing stage     | Lean over to bowside, pull the boat in<br>Get ready to push off... 1... 2... 3... push   |   |
| Paddling off                               | Backstops... get ready to paddle light...<br>Are you ready!?... GO   | Are you ready is more of a command than a question  |

## Avoiding Injury through Bad Rowing

- Don't over compress or overreach at the catch
  - Don't rush or bounce into frontstops
  - Ratio – "trundle, trundle, trundle"
- Keep a strong core at the catch
  - Avoid bum-shoving which can lead to back strain
- Legs are the strongest muscles, so use them the most
  - A missed catch can lead to an early finish
  - Leaning back a long way or drawing up really high to compensate can lead to a bad back
- Keep back strong but comfortable
  - Not slumped but also not bolt-upright
- Keep wrists flat during the drive phase
  - Extract blade before feathering to avoid force on bent wrists
  - Keep elbows above wrists at the finish
- Keep neck and shoulders relaxed
  - Not overreaching at the catch
  - Sitting back and letting the hands spin away at the finish
- Keep contact with the footplate
  - Don't use hamstrings to haul body up the slide
  - Imagine holding a coin against footplate with the balls of the feet and trying not to let it drop
- RELAX! Let the stroke happen naturally. When tense, crazy habits develop.

## If Someone Gets Injured

- Keep them warm
- Allow them to decide whether to drop out or to row back in the interests of keeping warm
  - If in doubt, drop them out
  - If ribs hurt when breathing in or laughing it is either a stitch or a cracked rib. They should not row until they have recovered
- Tell them to see a physio
- Monitor training until they are recovered

## Hypothermia

Symptoms of hypothermia include shivering, turning pale or blue and speaking incoherently. Hypothermia is a major risk in the winter, or when waiting around before or after racing, particularly in wet kit. In cold weather, crews should always have warm and dry kit (carry it in the boat in a plastic bag to keep it dry).

In the event of hypothermia, change them in to warm and dry clothing and get them back inside as quickly as possible. If they are immersed in water, get them out as soon as possible to minimise heat loss.

## **Exhaustion**

Exhaustion can be avoided by keeping sessions to less than 2 hours and by taking water to drink. Particular care should be taken in hot weather when sessions should be shorter.

## **Stay with the Boat!**

If someone ends up in the water, e.g. after capsize, it is much safer to remain with the boat and use it as a floatation device. Either swim to the bank with the boat or climb back into the boat (the capsize drill). In case of cold, the person can be draped over the boat to minimise heat loss.

Emphasise this rule to your rowers from the start.

Coaches should carry throwlines and be familiar with their use to assist in case of immersion. The priority is to get them out of the water to minimise heat loss.

## Coaching Resources

- **CUCBC**  
[www.cucbc.org](http://www.cucbc.org)  
Rules of the River, flag status, hours of darkness, coaching guidelines, guidelines for coxes, intercollegiate races and much more...
- **British Rowing**  
[www.britishrowing.org](http://www.britishrowing.org)  
British Rowing membership (essential for racing off-Cam), safety rules and procedures (RowSafe), coaching resources (RowHow)
- **OarSport**  
[www.oarsport.co.uk](http://www.oarsport.co.uk)  
Coaching and fitness training resources
- **Polar Personal Trainer**  
[www.polarpersonaltrainer.com](http://www.polarpersonaltrainer.com)  
Fitness training resources including weights exercises