Common Mistakes In Rowers' Techniques and How to Correct Them

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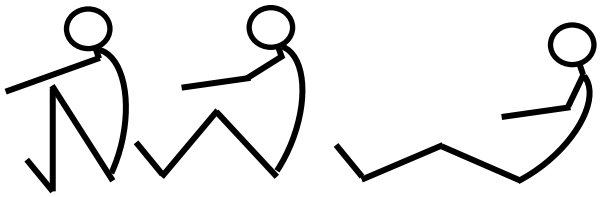
(modification by Coach Jon 2019)

Coach Jon

IMPROPER POSTURE

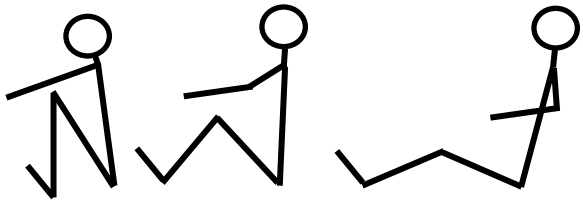
Many rowers row with improper posture in the boat. Most commonly, the error comes from rounding the back which causes the shoulders to rise, the chest to sag and the lower back to slump:



A bent back is a weak back. A bent back reduces the size of your lungs (not a good idea for racing). A bent back is a short back and reduces your length (reach) at the catch.

PROPER POSTURE

Try to keep your back as straight as possible without being stiff. Sit up tall, try to feel as though the oar handle is well below your ribs. Try to keep your chest full, but relaxed. Let the back have only one pivot point, the hips – **BEND AT THE HIPS NOT THE LOWER BACK!!!!**

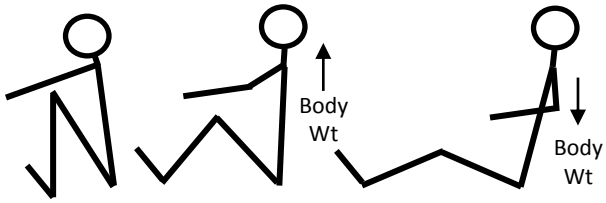


A straight back provides:

1) A better connection between the back and the legs
2) More room over the thighs for feathering
3) More room in the rib cage for lungs
4) A stable platform against which the arms can draw for a steadier finish

SHOULDER LIFT

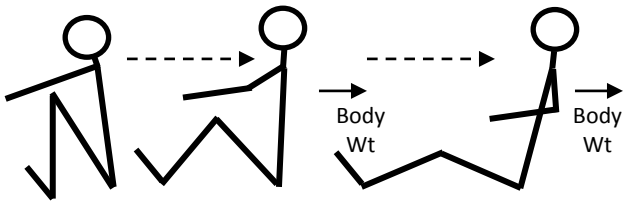
Many rowers either initiate their drive or place the blade into the water with a shoulder lift. The beginning move at the front stops is a raising up of the shoulders:



A shoulder lift causes the body weight to shift during the drive, forcing the boat down into the water at the finish and killing the run of the boat. Shoulder lifters often have stiff arms, too much layback at the finish, slow legs and really tired backs which compound the problem.

STEADY SHOULDERS

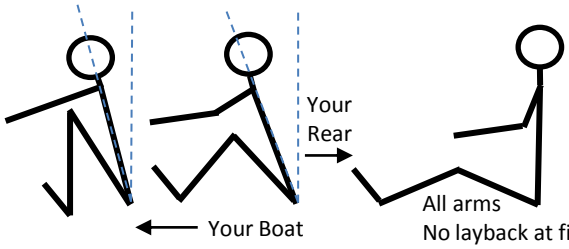
The blade should be inserted with just the hands and the boat should be picked up with the leg drive. Try to hold the shoulders steady throughout the drive, make sure they are moving in a horizontal plane:



Steady shoulders primarily keep the body weight moving horizontally in the boat, which allows the boat to run. Steady shoulders also keep the legs strong and quick and prevent them from stalling.

SHOOTING THE SLIDE

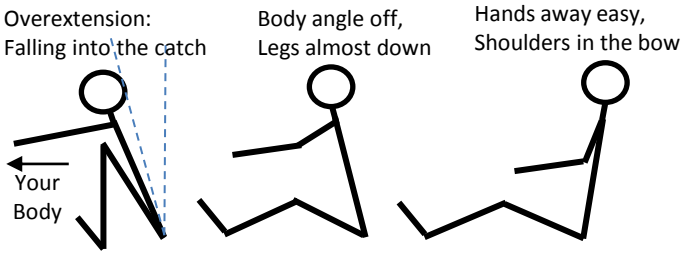
Forward body angle increases at the start of the leg drive. The rower is weak in the lower back and drives without holding against the legs in the lower back. The result is "shooting the slide", driving the legs without moving the boat.



Shooting the slide loses all the punch at the catch, since the oar handle does not move but you do and the boat (at the footboards) receives a big backward push. This backward push kills the run of the boat.

FALLING INTO THE CATCH

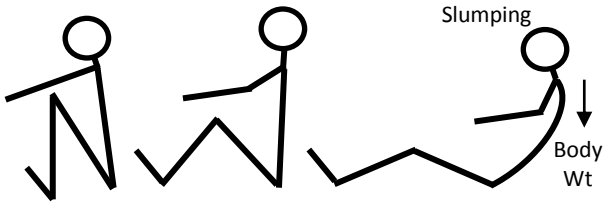
Rowers often tend to fall, lunge, or dive into the catch. This means that just before the catch, the rower tries to get extra reach by suddenly bending forward more and stretching the body and shoulders.



Falling into the catch, leads to shooting the slide, since your overextended back cannot hold effectively against the legs. The body momentum into the stern from the lunge is hard to break, consequently the catch will be slow and the boat will have a severe check.

FALLING INTO THE FINISH

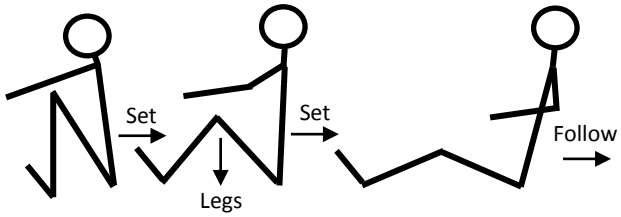
Some rowers have a problem with too much layback. Excessive layback tends to cause loss of body control and falling or slumping into the finish.



Excessive layback not only dumps the boat down into the water but kills the boat run. Slumping also makes it harder to row at high cadence, makes your abdominal muscles sore and gives you less room in your lap to feather.

PROPER CONNECTION

The rower should be "set" against the legs in the lower back at the catch. The "set" should feel roughly as you would if you were doing dead lifts. By bracing the back, the legs will be the prime movers through the drive.

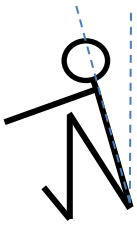


Try to feel the set in the lower back, beginning just above the hips. Make your back so strong and firm that you know for every inch you drive on the slide, you move the oar handle a corresponding inch.

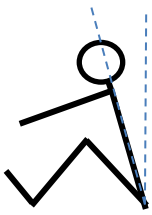
PROPER BODY CONTROL AT THE CATCH

Proper body control at the catch can be attained by:

1) recovering in the proper sequence: hands away quickly; lean forward from the hips getting the body angle while the legs are still down; then coming easily up the slide
2) as you start to approach the catch, start to set the lower back.



At about 1 ½ inches before the seat direction change, the lower back is set.

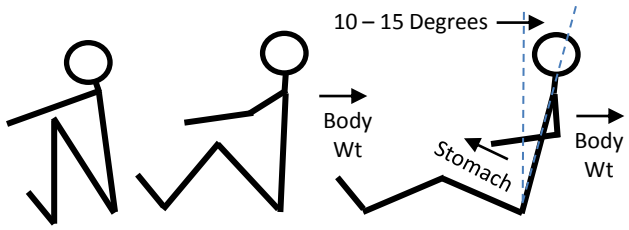


At ½ slide on the recovery the forward body angle, shoulders and arms are set and remain set all the way through the catch.

By angling from the finish position, you make it easier to get your body angle. By anticipating your set in the lower back, you stop the forward momentum of your seat and can reverse direction easily and quickly (efficient transfer from recovery to drive at the catch).

PROPER BODY CONTROL AT THE FINISH

1) Open the back sharply and quickly to an angle between 10 – 15 degrees past perpendicular.
2) Use the stomach muscles and the draw of the arms against the oar handle to stop the body momentum into the bow.

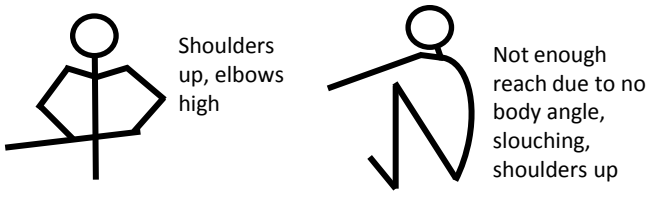


It is very important to learn how to control your body at the finish. You will find that feathering the oar is far simpler when you are sitting perfectly still at the finish. You can only do this by catching your body with the stomach and saving the arms to help control the finish.

SHRUGGED SHOULDERS

Many rowers row with their shoulders practically touching their ears. They do this usually for two reasons:

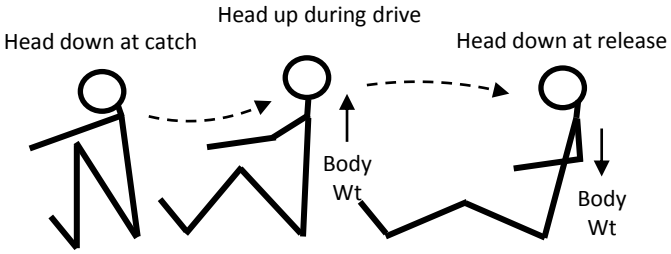
1) They need to push the shoulders up and forward to get enough reach at the catch.
2) They lift their elbows high to get the oar up where they can feather. These problems are often related to slouching.



Shruggers are uptight rowers. Either they cannot feather or are afraid they will catch a crab. They do not recover correctly and have to lift up to get the oar handle over their knees. They cannot follow the stroke and are afraid the coach will see it.

BOBBING THE HEAD AND SIGHTSEEING

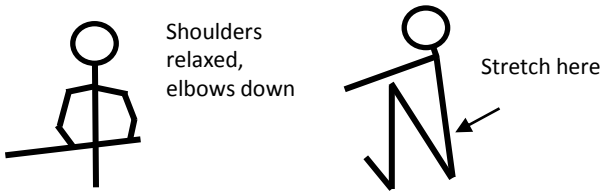
Most people's head weighs 10-12 lbs. (4.5-5.4 Kg) If you toss your head up and down during the drive (like the shoulder lift) you hurt the run of the boat.



Sightseers are rowers whose attention span is comparable to that of a four year old. Sightseers continuously look outside the boat. Sightseers are also the rowers who are never on time at the catch, who always rush their slide and who crab out in tight races.

HOLDING YOURSELF UPRIGHT

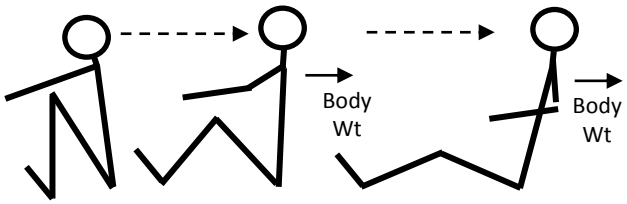
The stock phrase is "shoulders down and chest up." This means that the shoulders should be completely relaxed around the neck and collarbone while rowing. Often sitting a shade taller and firmer from the lower back will solve the problem.



The more you can relax and turn off muscles which are not required for rowing, the more efficient your rowing will be.

THE HEAD

Try to keep the head moving in the same horizontal plane throughout the stroke cycle (like the shoulders). Try to keep relaxed in the jaws and face. Do not let the chin drop at the finish. Keep the chin up through the entire stroke.



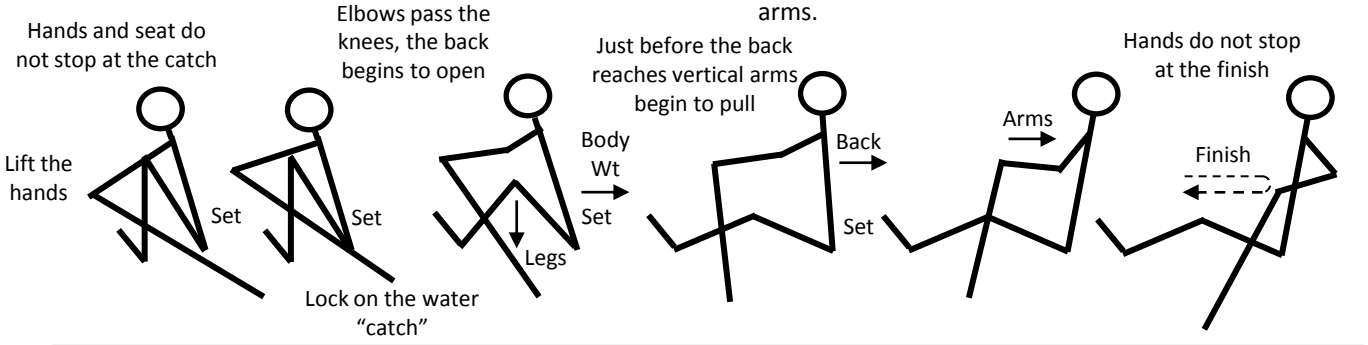
You must keep your head straight in the boat and your eyes focused on the correct oar collar. If you are in the seat behind the stroke, your eyes should be on the strokes oar collar at the strokes oar lock. If you are on the port side, your eyes should be on the next port rowers oar collar at the rowers oar lock. (6 on 8's, 4 on 6's, 2 on 4's). If you are on the starboard side, your eyes should be on the next starboard rowers oar collar at the rowers oar lock. (5 on 7's, 3 on 5's, 1 on 3's) **Do not ever watch another rowers blade**, you will always be late. Crew is a tactile sport and you will never be successful if you cannot concentrate and feel out the boat's motion and how your movement is relating to it. You can not concentrate if you are talking in the boat. **No Talking In The Boat!!**

THE IDEAL STROKE

Begins as you approach the front stops. The weight of the hands comes off the oar handle, the blade descends toward the water, the lower back sets and the hands continue to rise (the action starts about 1½ inches from the seat changing direction). The blade falls into the water and the legs explode, driving against the set back. When the heels of the feet come into contact with the foot stretcher the leg drive accelerates.

Just before the legs finish, the back opens hard to 10 – 15 degrees. Just before the back finishes, the arms start to draw to finish out the stroke. The arm draw and stomach muscles are used to stop the back and the body's momentum into the bow. The style is legs, back and arms with heavy emphasis on the legs and back.

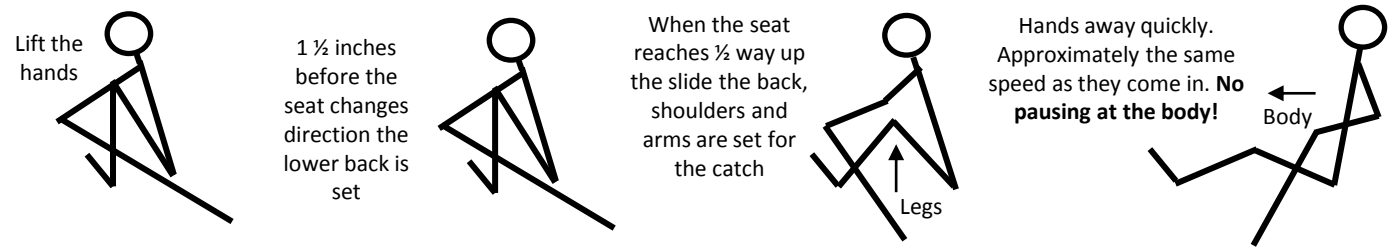
It is a sequence of moves, "Lift and set, catch, LEGS, BACK and arms.



THE IDEAL RECOVERY

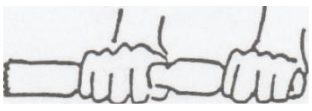
The recovery begins when the arms draw level to the body. By this time, the body should be still and the blade out of the water. The inside hand feathers and the outside hand leads the hands away quickly until the arms are loosely extended. Then the shoulders and upper body, which were riding in the finished position, move forward **from the hips**, getting the correct body angle for the next catch. This is a smooth and continuous motion. The oar handle never stops moving.

After the oar handle passes the knees, the legs begin to rise and the seat rolls easily forward as the knees come up under the armpits. The recovery should be as slow and gentle as possible to maximize the run of the boat. The recovery should take 1.5 – 2.0 times longer than the drive (longer recovery at a lower stroke rate). **The recovery should never be faster than the drive**. The ratio between the quick drive and the long recovery is called "swing".



IMPROPER GRIP

Very few rowers hold their oar correctly. Some clamp on so tightly (death grip) that their knuckles turn white. Others hold the oar too loosely and actually take their fingers off the handle at odd moments (piano playing).



Death Grip

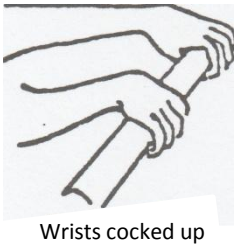
Other problems include: hand too close together, hands too far apart, hands too far down the handle, hands not responding to the brain, etc. etc.

PROPER GRIP

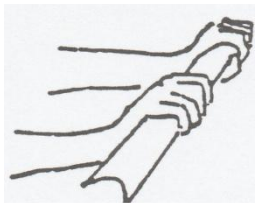
1) The outside hand (left if you're port, right if you're starboard) should be at the end of the handle, pinky finger parallel to or overlapping the butt end.
2) The inside hand should be two widths of your hand (thumbs included) down the handle. In other words, there should be two hand-widths between your hands on the handle.
3) The oar should be held between the joint of the thumb and the face of the fingers. **At no time should the palm fully contact the oar handle**. If you have big palm blisters, you are holding the oar too tightly. If you have blisters on the span of your thumb, you are holding the oar too tightly.
4) The oar is held in the crook of the four fingers at the top of the palm. **Do not squeeze the handle when you drive**. Let the handle sit snugly up against the four fingers and keep the thumbs in loose contact with the handle.

WRIST COCKING

Many rowers cannot understand why their forearms get tight or why someone else's do not. The problem is called wrist cocking and it is simply driving with the back of the hand at an angle to the forearm.



Wrists cocked up



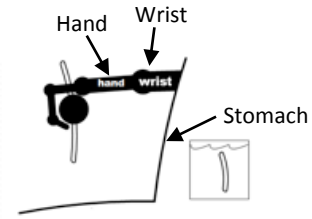
Wrists cocked down

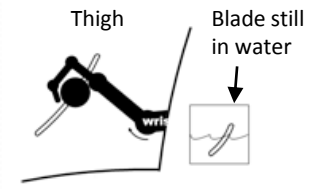
This habit invariably creates problems like:
Squeezing the handle
No room in the lap to feather
Feathering with both hands
Tightness in arms and upper body

FEATHERING

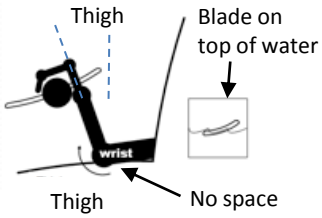
This is the most difficult aspect of rowing to learn. Many rowers row for years without doing it properly, some never get it right. The improper techniques are to numerous to discuss, but in general, the main problems stem from:
1) **Quickly jamming the wrist down** at the finish and trying to press away with the wrist tucked under the handle.

Wrists jams down as handle comes toward the body, thumb squeezes handle. Results: no body control or relaxation at the finish, no room to press down to get the blade off the water, scraped thighs, tight forearms. Also it is impossible to reach for the next catch carrying the wrist under the handle.





Notice in the diagram how the handle level remains the same height over the thigh, only the wrist goes down. The wrist jams down into the thigh leaving no room. **You can not get the blade off the water that way**.

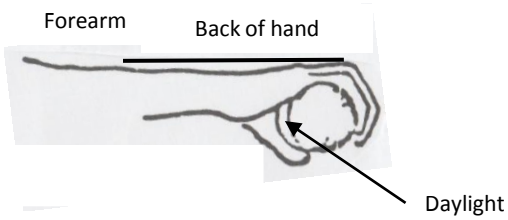


2) **Feathering the blade while still pulling**. Any form of feathering while still pulling makes it difficult, if not impossible, to be doing any of the following: Balance the boat; Getting the blade off the water; Get your body off the back stop; row at a high cadence.

3) **Pulling the handle into the body and then feathering**. Makes all the above worse.

RELAXING THE WRISTS

Both the fingers and the wrists must relax before relaxation of the hands, wrists and arms can be achieved. It is important to make sure that the wrists are not cocked. Check to see that the backs of your hands are parallel with the plane of your forearms

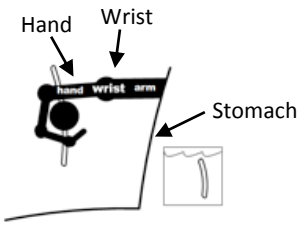


Parallel back of hand to the arm is the correct position for both hands. Think of your forearm and the back of your hand making a straight line. In the drawing, note that there is daylight showing between the palm and the handle. This is how your hands should look holding the oar handle.

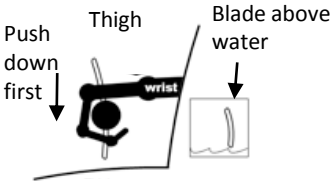
FEATHERING CORRECTLY

1) **You must attain body control at the finish FRIST**. You must stop the body momentum in the bow with the stomach and the draw of the handle and give your hands a still platform to work off of.
2) **Press down on the handle first in order to get the blade out of the water**.

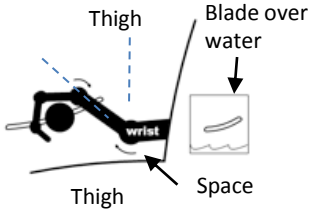
The first motion in feathering correctly is to push the handle down to allow the blade to clear the water.



Notice in the diagram how the combination of rotating the wrist and opening the hands reduces the amount of wrist rotation needed to feather the blade compared to when only the wrist is used. **Less stress on the wrist allows the wrist, hand and arm to relax.**



Notice in the diagram that with the blade over the water there is still space between the wrist and thigh. **This allows the hands to move away quickly and easily.**



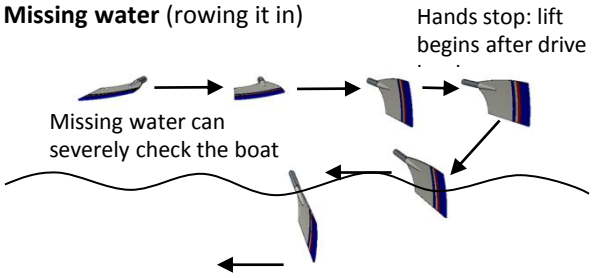
3**) After the blade clears the water rotate the wrist downward and rotate the hand grip open**.
4) **Squaring the blade is the opposite, rotate the hand grip closed and rotate the wrist up.**

The feathering hand is the inside hand only. The outside hand's wrist always remains straight. The hand relaxes and the oar handle rotates inside the outside hand.

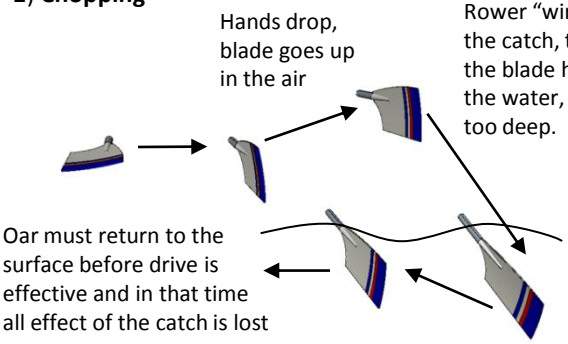
BAD CATCHES

Bad catches are usually why a crew is unsuccessful. The catch is the most important part of the stroke. Here are ways rower abuse the catches:

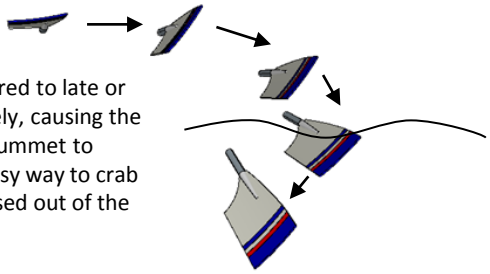
1) **Missing water** (rowing it in)



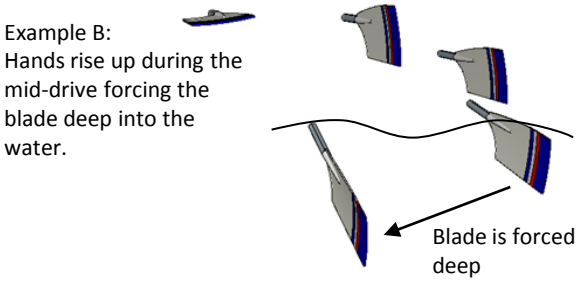
2) **Chopping**



3) **Knifing** (digging deep)



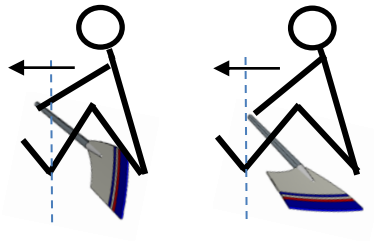
Knifing is an easy way to take a bath 



The catch is the most difficult to learn, but it is the key to boat speed. A quick, hard catching crew will beat a mushy, slow crew **every time**. As a strong, hard-charging line in football can dominate a game, hard catches can dominate a race.

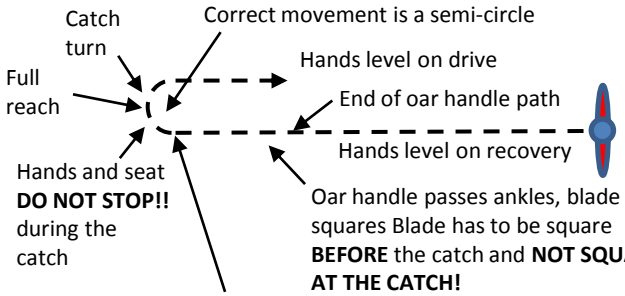
THE CATCH AND HOW TO DO IT

1) **It begins by squaring the blade properly**. When the handle passes over the ankles, square the blade (not before, not after). Getting the timing right requires **anticipation**. Blade should be fully squared by ¾ slide.

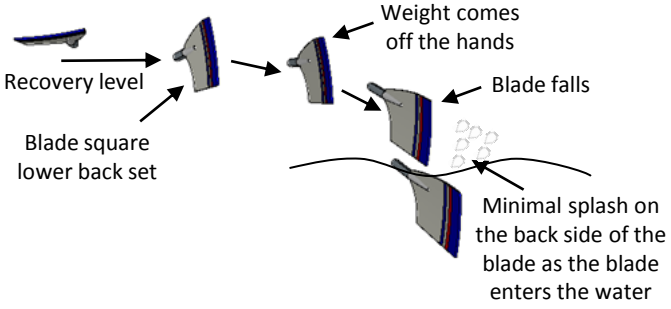


Anticipate movement so the blade will be square at the right time

2) **As you approach** the front stops at reach (back, shoulders and arms are set for the catch at half slide) begin to take the weight off your hands and allow the blade to fall into the water. Take the weight off your hands at about 1½ inches before the seat changes direction. This is approximately the same point you should be locking your lower back. The combined movement of the seat moving toward the stern and the hands moving up make the first half arc of a semi-circle. The seat changes direction in a split second (no pausing). The combined movement of the seat moving toward the bow and the hands moving up make the second half arc completing the semi-circle. The catch is part of the recovery **NOT** part of the drive!



3) If you begin the hand movement at the catch properly (before full reach) the blade will catch the water properly.



Remember, **gravity** will put the blade in the water faster than you will. Do not try to be quick and force the blade, just anticipate each move before it happens. Be **relaxed** and the move will come along properly. When you feel the blade splash into the water, **immediately** explode with legs and set back. This will give you the quickness for **real speed**.

ABUSING THE SLIDE

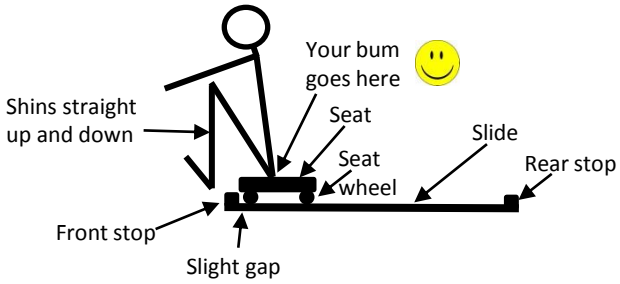
Many young rowers abuse the slide by hitting either the front or rear stops while rowing or by rushing the slide.
These problems can be fixed quite simply.

1) **Hitting the rear stops** means you need to move the foot stretcher towards the stern.

2) **Hitting the front stops** means you may need to move the foot stretcher towards the bow. It may also mean that you are without body control at the catch, or are rowing without forward body angle.

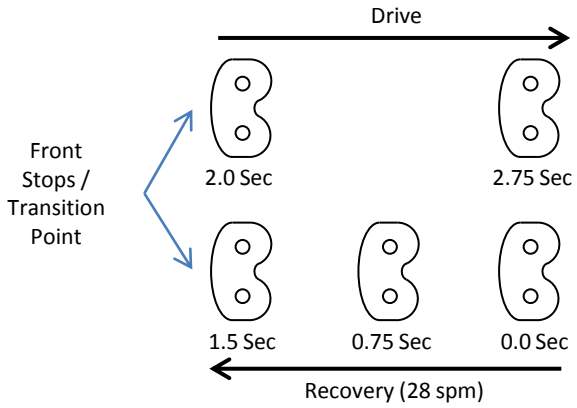
3) **Proper Foot stretcher adjustment:**

1) Move the seat to the stern of the boat until the seat roller touches the front stop.
2) Move the seat just a little bit to the bow to create a slight gap between the seat roller and front stop.
3) Move the foot stretcher to the stern or bow until your shins are straight up and down.
4) Get the feel of how far to come forward on the slide without banging the seat wheel into the front stop.



MORE SLIDE ABUSE

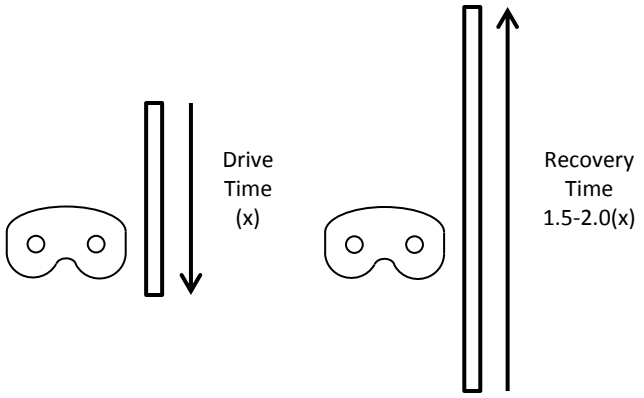
Just as a lot of rowers allow their hands to stop at the catch and there by get slow and in trouble, so do rowers allow their seats to stop at the catch (front stops).



The diagram above shows how the seat can stop at the front stops. The time in seconds represents elapsed the time of the stroke. The seat stays at the catch for 0.5 seconds. For that length of time your weight is in the stern of the boat.

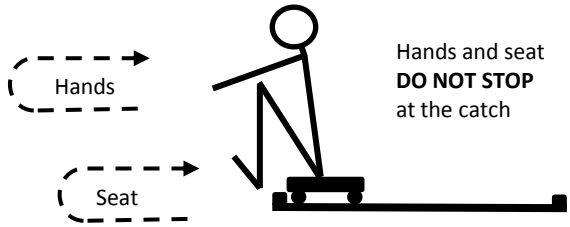
4) **Rushing the recovery**

Rushing the recovery is the easiest way to kill the speed of the boat. Rushing is when the seat comes back on the recovery in less time than the drive through the water. At a low cadence (22-28 spm) the recovery should take 1.5 – 2.0 times the amount of time of the drive. **Make the recovery slide long, slow and relaxed.**



THE QUICK, LIGHT SLIDE

Just as the hands should swing around the catch turn without stopping, the seat should also roll into and out of the catch without stopping. The diagram shows how the seat and hands should be coordinated at the catch.



If both the hands and the seat reverse direction simultaneously, and the blade is solidly buried in the water, you will be moving the boat. **Locking the lower back is critical for speed**.

RACING AND BEING A ROWER

TATICAL ERRORS IN RACING

Racing is a simple matter . . . you get ahead and stay ahead until the race is over. However, some crews make classical errors which are explained below:

1) F**ly and Die** – You blast out to a big lead in the first 500M rowing a high stroke rate, never realize how high you are rowing and then break by 1000M when the energy runs out. Your opponent steams past you rowing a lower stroke rate with better boat speed.

2) **Tortoise** – Basically, you become afraid to be aggressive early, take the boat off the line too tentatively and your opponent has an insurmountable lead by the 500M mark.

3) **Scrambling** – You are in the race okay, but you are rowing at 1 to 3 strokes higher than your opponent . The boat is not really together and swinging. You will probably lose in the last minute of the race.

4) **Sitting on a small lead** – You get out by 6 seats or so on your opponent and just sit there hoping to hang on until the finish. Meanwhile, your opponent sees you going nowhere and gains confidence the longer you sit there. This is similar to:

5) **Opening the door** – Allowing an inferior opponent to get a lead and keeping it long enough to believe they can beat you. Then the opponent gets tough going down the course.

6) **Breaking** – Allowing a crew to beat you at once with a single decisive move. You race even for 1000M, then your opponent takes a 20 and moves four seats before you respond and then your response is scrambled and not together because you got rattled.

RACING TO WIN

Here are some principles which will, if you can put them into practice, will win you some races.

1) **Execute your race plan** – Particularly at the start, do not worry about your opponent; pay attention to executing your race plan perfectly (right cadence, right moves, etc.) Get it going well, **then bust it!**

2) **Be aggressive but under control** – This is called **violence in a bottle**; you should be really keyed up and really busting it in a race, but not oblivious to what you are doing, not losing though or concentration. Do not let the race happen to you. **You make it happen**. This will take care of the fly and die, tortoise and scrambling.

3) **Move on your opponent** – Once you start moving, keep moving. Do not sit on any lead. If you have a lead, increase it – **Stomp on Your Opponent**! If you are behind, **do something** – bring the slide under control, take a 20, stop them, stop them cold and come right back at them!

Never stop moving, ahead or behind. A big move from behind by you can break a crew who is ahead of you but who might be scrambling. You never know how fragile their lead may be.

4) If an inferior opponent is leading you**, make sure they are paying a terrible price. Make them hurt for every seat, every inch. If you lose to them, make sure they beat your best**.

5) **Winning is a habit – Make it yours**. It is reasonable, to set a goal never lose a place in a race for the season. Do you have that kind of pride? Do you care enough? All real winners do! It does not take that much more to win, but it does require all of those corny virtues – **Courage**, **Perseverance**, **Pride**, **Strength** and **HEART**. What kind of rower or coxswain do **YOU** want to be?