

the **CrossFit** JOURNAL ARTICLES

Smoother Rowing for More Power

Tom Bohrer

In rowing, the “catch” is the transition between the recovery and the start of the drive. If you were rowing on the water, this is when you would place your blade in the water. Once the blade is in, you would feel the resistance of the water against the blade as you start to push with the legs. On an indoor rowing machine, there is no resistance from water but there is a similar resistance from the flywheel. In either case this transition of moving from the recovery to the drive, if not done correctly, can take away from the power of the drive and make your rowing stroke less efficient than it could be.

Transitioning from the recovery to the drive is like running wind sprint indoors. If you run full speed toward a wall, you know that you need to slow down (decelerate) so that you don't crash into the wall. If you decelerate smoothly, you are able to stop yourself without feeling your momentum continuing toward the wall and then spring off the wall and change direction. If done right, it feels coordinated and powerful. Another example is squat jumps, where you need to control the landing so that you can spring up again. Landing without control makes it harder to do the next jump. You won't be able to go as high and it will seem slow. When you row, the same principles apply. It is all about control and applying the power at the right moment.

The following are the three most common problems at the catch:

1. Rushing or accelerating the slide into the catch.

As in the example of wind sprints, if you can control the speed of your slide (body) into the catch, you should be able to spring off the foot stretchers as you would off the wall in the sprints. Think of your erg being on a sheet of ice. If you rush up and stop abruptly at the catch your erg will slide forward. If your erg is sliding forward when you start driving the legs, your stroke will look “jerky.” You will feel a yank in your arms and back. So, instead of diving forward indiscriminately, control your momentum into the catch so that you can stabilize your core, back, and shoulders. This will allow you to maximize the transfer of power from your lower body as you start the drive.

2. Stopping the slide at the catch and then continuing forward with the upper body.

When your slide stops at the catch, your handle should also stop. Many rowers stop their slide and then either continue to reach out with the shoulders or try to get more forward body angle. In each case the handle keeps moving forward while the seat has stopped. The problem with this is that as the rower keeps reaching forward with the handle, they usually start pushing with the legs, so that the seat is going in one direction and the handle in the other. This again will make for a jerky and inefficient, less effective stroke—and it can hurt your back or shoulders.

3. Handle stops at the catch but the seat continues moving.

In this case, the handle stops but the seat keeps moving forward. This is particularly common among CrossFitters for some reason. When this happens, the seat comes up

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under the shoulders and causes you to lose the forward body angle. Losing that body angle diminishes the power of the leg drive, shortens the effective stroke length, and puts more stress on the middle of the back, which can eventually lead to back problems. There should be some space (on the order of three to eleven inches or so, for most people, depending on body shape and size) between the front of the seat and the heels at the catch, and the torso should still be inclined forward when the leg drive begins. Drive off the entire foot, not just the heels.

(The exact distance between the front of the seat and the heels will vary from person to person—but in no case should the seat ever hit the heels!) Thinner people will have less space—maybe three to five inches—because their legs are not thick. Those with more muscle and mass may have six to twelve inches. Ankle flexibility will also determine how much compression a rower gets at the catch. Either way, the knees should be over the ankles, and the shoulders should be slightly in front of the hips.)

One of the drills I use to correct these problems is to place a pole horizontally across the rower, in front of the shins. At full slide—i.e., at the catch—we look for the shins to be vertical, with knees directly over the ankles. The pole works as a barrier telling you where to stop sliding at the catch and makes you aware of your body position. When the shins touch the barrier, you know to stop both the slide and the handle. You want to slow down smoothly just before it and barely touch it, without moving it. One of my rowers said that he thinks of the hair on his legs like a cat's whiskers, sensing the pole before the skin actually touches it. (Hey, whatever works!) The instant feedback the pole provides is extremely valuable. It should be pretty clear what the handle and seat are doing once the shins are at the pole. Rowers will be able to differentiate between good and bad strokes and make corrections more quickly.

For this drill I have been using a PVC pipe or broomstick and placing it on chairs (or holding it) at a height just over the ankles. It should be positioned so that when the rower comes to the catch the shins are vertical (knees over ankles) and the shins just touch the pole.



Good position at the catch.



Overreaching. The shins stop, but the upper body and handle continue.



The handle stops moving but the seat slides forward underneath the shoulders.

As the athlete rows, check for the following:

- The rower should not come to an abrupt stop and run into the pole.
- The deceleration should be smooth so the shins just barely touch the pole, and then there should be a smooth acceleration out of the catch.
- As the slide stops and the shins are at the pole, the rower's upper body should not continue to travel forward.
- When the shins come to the pole, the seat should stop. The seat should not continue to slide forward such that it comes up under (or, even worse, in front of) the shoulders.
- When the shins stop moving, the seat and handle should also stop moving. Watch for this if you are coaching.

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A view of the catch from another angle. You can see how the pole is set up on chairs.



The rower is moving into the catch. Note that the pole is just over the ankles.



For a rower who is still reaching forward once the shins are at the pole, you can set up a "double barrier" by placing a chair in front of the handle at the catch as well.



The rower is just about at full slide. As the shins stop, the seat and handle should stop. Do not drop the body down (i.e., round the back forward) or extend the shoulders farther forward to try to get more reach.

Tom Bohrer has over 20 years experience rowing and coaching. He is a two-time Olympic silver medalist (1988 and 1992) and a three-time medalist at the World Championships. In 1989, he was voted U.S. Rowing Athlete of the Year. He is currently the head rowing coach at the [Union Boat Club](#) in Boston, where he trains rowers of all levels. He is a Certified Strength and Conditioning Specialist (CSCS) and a Certified Personal Trainer (CPT). You can send questions to Tom at tom@tbfite.com or go to his web site TBFite.com for more training information.

