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Use Your Feet for Stronger Rowing

Tom Bohrer

Compared to the complexities of rowing a boat on the water, indoor rowing presents few technical challenges. There are no balance issues to contend with on the erg. You don't have to feather or square your blade. There is no splashing water or risk of capsize; the coach can be standing directly next to the athlete; and everyone stays nice and warm rowing inside. All this gives you a wonderful opportunity to really get hands-on, back to basics work on the fundamental body positions and mechanics for rowing both on and off the water.

If you're coaching rowers, you can have them row in front of mirrors or take video and show it right away so they get an image of what they are doing right or wrong. Show them how to relax their shoulders and how to engage their lats as they start the drive. The possibilities are nearly endless. However, in all the things I talk about in the stroke, I think I spend most of my time talking about the feet, which are so often overlooked in discussions of rowing technique.

Once I realized myself how important it is to keep contact with the feet on the foot stretchers for the final push at the finish, what it feels like to have your weight low in the feet compared to the upper body, and how to push off the balls of the feet at the catch—and how this can improve your rowing tremendously—I began to coach this to my rowers. I was not totally aware of what my feet were doing until I was 36 years old (I started rowing when I was 19) and rowing with Charlie Butt. I've spent a lot of time thinking about the role of the feet and breaking down the elements of it.

Here are some of the things that I was able to figure out about thinking about your feet can get you rowing better.

Get off your butt and onto your feet

Let's look at how the feet bear and transfer weight throughout the various phases of the stroke, starting with the recovery. As the body starts to tilt forward from the finish into the recovery phase, you feel some of your body weight going on to the foot stretchers. The closer you move to the catch, the more weight you feel going on to the feet. Having your weight down low, on the feet, allows the upper body to be more relaxed. And the more your upper body is relaxed, the better chance you have of a nice clean placement at the catch.

As you approach the catch, you can feel the heels come up slightly as more weight transfers onto the balls of the feet. At the catch, your weight is down low on the balls of the feet and for a split second you should feel as if you could stand up at the catch. Start the drive by springing off the balls of the feet. Don't even worry about the heels.

Think about keeping the feet in contact with the foot stretchers for the entire stroke. As you draw the handle into the finish, keep pushing with the feet as if you were going to point your toes so that you have a stable platform as you finish the work of the stroke. Then repeat. Sound easy? Work on rowing with special attention to your feet, and see if and how it affects your stroke.

The catch

There are not many rowers who can keep their heels down at the catch. Unless you are really flexible, the heels will come up some, and this is fine. Coaches who try to tell their athletes to keep the heels down are asking

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for problems such as rowers shortening up their slide as they come toward the catch and then overreaching with the upper torso at the catch. (The rower should not stretch out extra from the armpits and round the shoulders at the catch.) Be careful what you say.

You can use the feeling of your heels coming up as a reference point indicating that you are almost at the catch and as a cue to start swinging the arms up to place the blade. I also like to watch the speed of the heels rising; not coming up too fast, but controlled and smooth. If they come up fast and out of control, it usually means that you are rushing into the catch. You need to feel the patience of the weight smoothly rocking onto the balls of the feet. You can practice this out of the rowing machine by standing up and then stepping forward as in a lunge. Land smoothly on your heel then transfer the weight to the ball of the foot and then spring back. When you can spring back explosively, you know that you have done it correctly. The timing of the rock and drive has to be just right.

The drive and finish

When you are at the catch, you have your weight on the balls of your feet. During the drive, think about pushing off the balls of the feet as long as you can. If your back opens early as you start the drive, you take the weight off the balls of your feet, and your leg drive becomes less effective. (This is a common problem for many CrossFitters, who lean back too early against the handle and open the back angle prematurely.) As you go through the drive, the power will naturally transfer from the balls of the feet to the heels, but you don't want it to be early. Even as you finish the stroke, still concentrate on keeping the toes in contact with the foot stretcher, rather than thinking about what the heels are doing.

I strongly believe that it is important to be able to master the drill of rowing with the feet out of the foot stretchers. Why? Try rowing arms only on the erg with your feet either totally out of contact with the foot stretchers or with just your heels on the foot stretchers. Then try it again with your feet on the stretchers and pushing with your toes as you draw the handle to your body at the finish. Which is more powerful? If the feet start to lose contact with the foot stretchers as you are opening with the back and then drawing with the arms, then you are throwing away power. It is a discipline and skill that should be learned.



Heels up at the catch. As you move into the catch, feel the heels slowly rise and your body weight rock onto the balls of your feet and toes. Get it right and you should feel like you can stand up.



Bad: Feet pulling off the foot stretcher at the finish. Remember, if the feet pull off at the finish you don't have a strong platform to pull from and you are ultimately giving away power.



Good: Feet maintain contact at the finish. Try rowing with a piece of paper under the toes at the finish. As you finish the stroke keep thinking about pressing with the toes to maintain contact with the foot stretcher. Have someone try to pull the paper out as you finish. You will have to concentrate, but you will be able to train yourself to do this even when rowing hard.

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Another problem with the feet losing contact with the stretchers is that it leaves your body weight almost in free fall as you drive. The result is very sloppy finishes. It becomes even worse as the stroke rate gets higher. To maintain contact at the finish, rowing coach Charlie Butt would say, think about pointing your toes. As you draw the handle in, push with the feet as if you were stepping on a car accelerator. I sometimes put a piece of paper between the foot and the foot stretcher to make sure a rower is keeping contact. Bill Manning from Harvard gave an erg demonstration at the rowing convention one year and he used dollar bills between the feet and the foot stretchers with his athletes. If he could pull the money out then they were not doing it right and he got the money.

As you come forward with the body (as the shoulders begin to get forward of the hips) in the recovery phase, feel as though more weight is going onto the foot stretcher as you come to the catch. I like to think of the foot stretcher as a scale; as you get closer to the catch, the weight increases. During erg practice, I will go and place my fingers between a rower's foot and the foot stretcher. I want to feel more pressure going onto my fingers as they come up the slide. If my fingers are getting crushed, I am happy. This is not a pushing pressure from the leg drive, but pressure from a shift of body weight on to the feet.

What it comes down to ultimately is regarding the feet as a part of the rhythm and coordinated movement of the rowing stroke. The circular flow of the stroke, from catch through drive, finish, and recovery—even on the erg—is about the transfer of body weight and the smooth handoff of force production throughout the body. Don't cut yourself off at the ankles by leaving your feet out of the loop.



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@tbfit.com or visit his website TBfit.com for more training information.