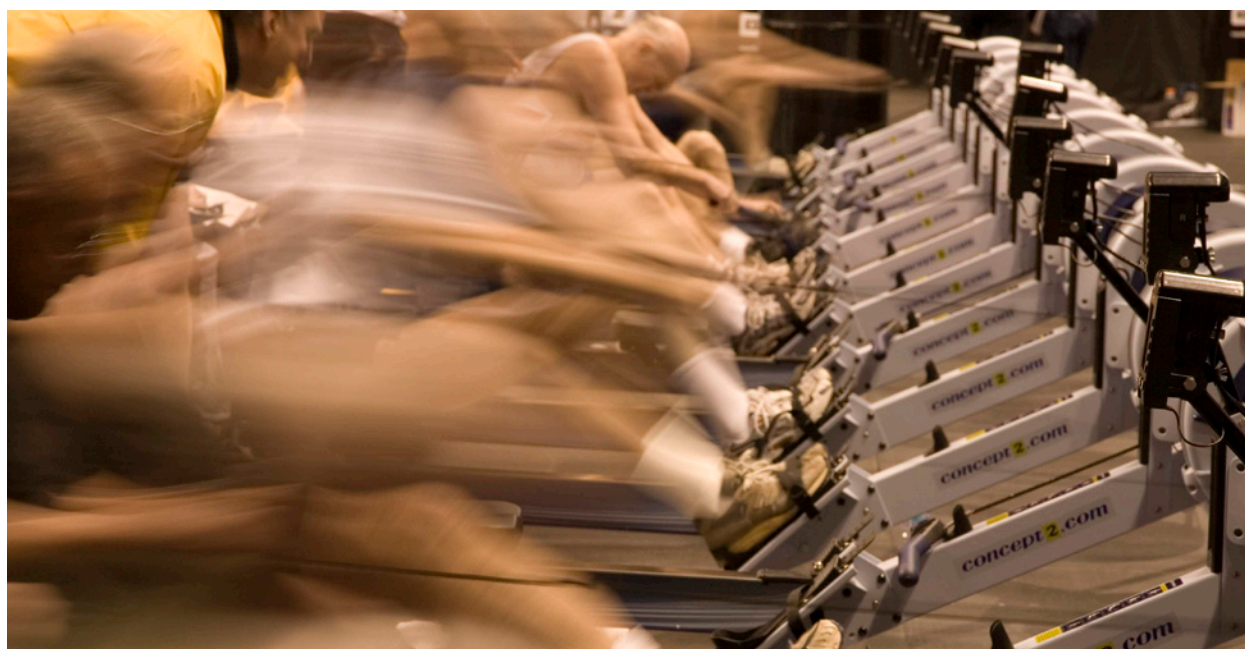


the **CrossFit** JOURNAL ARTICLES

Row Fast

How to Prepare for an Erg Test

Peter Dreissigacker



Competition is an incredible motivator. But even when the on-water season is over and rowing moves indoors for the winter, there are plenty of opportunities for competition, both against others and with yourself. In February of 1982, less than six months after Concept2 made our first rowing ergometer, a group of Olympic oarsmen in Boston organized the first “fun” indoor rowing competition. A friend called us and said, “We are going to hold a race on six of your ergs. Come on down and have some fun... Oh, and can you bring some T shirts for prizes?” I only wish I had come up with the idea. Today, rowers all over the world gather at these indoor rowing events, the largest of which involve more than 2000 people, many of whom have never rowed on the water. They come to test themselves in an atmosphere that literally pulls their best performance out of them.

I will be participating in this year’s [C.R.A.S.H.-B](#) (Charles River All-Star Has-Beens, named by and for its founders in 1980) international world indoor rowing championships at the end of February in the 55-to-59 age group. At

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55, I regard being on the young end of that range as just more pressure to do well. This is a 2000-meter race, but my take on how to approach a race would be the same for a 500-meter or 30-minute test.

About the race distance

A race, or any test piece, should be approached strategically if the goal is a top performance. The first rule is to “know” the distance. If your goal is to inflict the most discomfort on your body, you’ll just start rowing as hard as you possibly can at the beginning and try to hang on to the end. This will definitely hurt, and it will probably not result in your best performance. I have seen this happen far too often. Even a short 500-meter test will take longer than it does to run around a quarter-mile track, and no runner would start a quarter mile at the intensity of a 40-yard dash. Part of knowing the distance is understanding your pace and knowing your capabilities. You can get a feel for that as you train up to the test.

Train for the race

It helps to have time to prepare for your top performance. Even if you are fit on an ongoing basis, six weeks before a test is not too early to be planning and training your body for the specific rowing test. I like to take a portion of my rowing workouts, three times per week, and dedicate them to race preparation. Typically the work duration is shorter than the race distance so I can train to work at the high intensity of race day. Here are some examples of workouts I use training for a 2K test:

1) Intervals: 500 meters with 1 minute easy paddle rest; repeat 6 times. Rest for 5 minutes, and then row 500 meters for speed.

Here are my results from such a workout done about five weeks before the competition:

Interval #1: 1:45
Interval #2: 1:43
Interval #3: 1:42
Interval #4: 1:41

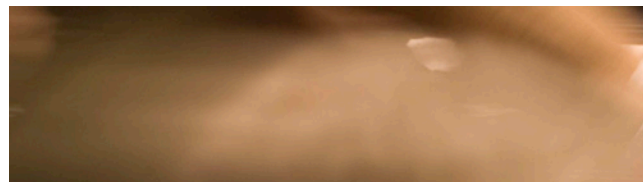
Interval #5: 1:40
Interval #6: 1:38.5
Rest 5 minutes
Row 500 meters: 1:33.4

The first six intervals are training pieces, trying to work them faster each interval. They are controlled and I am trying to get a feel for my race pace. Eventually I will do all six under 1:40. The seventh piece is to teach myself how to pull hard. I find that after a season of primarily long-duration, low-intensity work, it takes me some time to get these 500-meter times fast again. I am convinced it is more about (re)learning how to move and fire the muscles than it is any other type of conditioning. (Note: If I were training for a 500-meter test/race, I would do these as 250-meter intervals.)

2) Intervals: 1000 meters with 2 minutes easy paddle rest; repeat three times.

Interval #1: 1.44 pace/500m: 3:28
Interval #2: 1:42 pace/500m: 3:24
Interval #3: 1:39 pace/500m: 3:18

As the results indicate, these are also controlled pieces. (On a controlled piece I begin with a target in mind that is readily obtainable and try to match that target with my effort. On a “pushed” piece I do not limit the effort with a preconceived goal. All the paces shown are actual



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results from the workouts.) I row these as relaxed as possible during the first 500 meters and then increase intensity for the second 500 meters. By race day I will have done all three intervals at or below my target race pace. So what is the target? That is what I will be searching for by gradually pushing these workouts faster and faster. Last year my race time was 6:41, but I am determined to get back under 6:40 (below a 1:39.9 pace per 500 meters). (Note: If I were training for a 500-meter test/race, I would do these as 400-meter pieces with 2 minutes of easy paddle rest between.)

3) Pyramid: 500 meters with 1 minute easy paddle rest; 1000 meters with 2 min rest; 1500 meters with 3 minutes rest; 1000 meters with 2 minutes rest; 500 meters.

500m: at 1:42 pace/500m

Rest 1 minute

1000m: at 1:42 pace/500m

Rest 2 minutes

1500m: at 1:41 pace/500m

Rest 3 minutes

1000m: at 1:38 pace/500m

Rest 2 minutes

500m: at 1:34 pace/500m

The first two pieces are controlled. The third, the 1500 meters, gets pushed more in the last 500 meters. Coming down, I push the 1000 and the 500. As I push this workout faster (as race day approaches), I try to do the 1500 meters and the last two pieces at or faster than target. The 1500 meters is a good way to experience a somewhat longer piece at race target pace.

The general purpose of these workouts is to:

- Teach your body how to row at a high intensity
- Get your “head” used to rowing at high intensity
- Be able to row comfortably at your race pace
- Develop a race plan

Also work on your stroke rate and your breathing. This is a good time to develop habits that will be useful during the race. I tend to row the “controlled” pieces at 30 to 32 strokes per minute and as I push the speed that

might go up to 32 to 34 strokes per minute. Maintaining a pace within that range and trying to get as much out of each stroke as you can works better than flailing around at a higher stroke rate. Try to learn to relax on the recovery phase of the stroke during these workouts. Even in a 500-meter test there is much to be gained in learning to relax and take your time during the recovery phase. The recovery should take longer than the drive portion of the stroke, in spite of your desire for high intensity. It is interesting to note that when an Olympic rower is racing on the water at 36 strokes per minute (1.66 sec. per stroke) their oar is in the water (the drive portion of the stroke) for only about .6 seconds. Making a boat go fast is more complicated than rowing hard on a machine, but the lesson of optimizing your effort over the duration of a race is applicable to the erg as well. One could argue that as a test piece gets shorter, a higher stroke rating becomes more desirable, as long as you can gather yourself and coordinate for a strong drive. However, I would consider even a 500-meter test long enough to be concerned about efficiency, and accelerating your body mass up the slide on the recovery uses energy that does not go into making the wheel spin. Using the recovery to conserve energy can be very effective. That said, it is very common to see a racer increase stroke rate as they sprint to the end of a race, when thoughts of efficiency go out the window.

For rowing, there are essentially two types of breathing: one breath per stroke and two breaths per stroke. During a race I like to make a conscious decision which one to use. The one breath is inhaled during the recovery and exhaled during the drive. During the two-breath cycle, you inhale in the first part of the drive and exhaled before the drive is finished and then inhale again during the first half of the recovery and exhale before the catch. I shouldn't have to tell you to use the two-breath cycle when you are pushing the intensity up. I will often begin a test in the one-breath mode and at some point during the piece switch to two breaths per stroke. Stroke rate and breathing are a good thing to practice as you do these workouts in advance of test or competition so you are comfortable with them on race day.

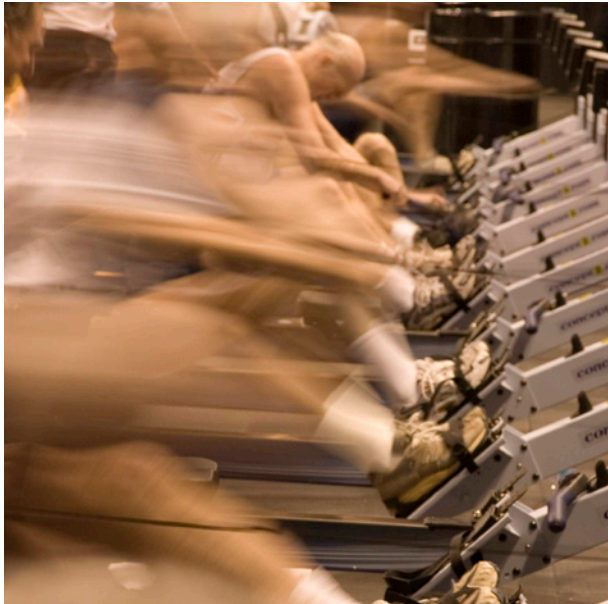
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Race plan

I like to break a race down into sections. A 2K can be looked at as $4 \times 500\text{m}$. A 500-meter test can be thought of as 5×100 , or as 200-200-100. Get to know how you want to do each section, what you should feel like at the end of each, and what your time or average pace should be at each milestone in order to achieve or better your goal.

There are many advocates for the “decreasing split” style of racing. This is a race plan where you pace yourself at the beginning and actually go faster in the last segment than the first. Others predict a faster time if the first segment is pushed a bit harder. I am in the “decreasing split” camp myself, and I do not remember a time when I finished and said “I should have gone faster at the beginning.” You can always “empty the tank” at the end, but if you use up all your energy at the beginning, you could find yourself without the gas to finish strong.

The more knowledge you have from training at race intensity, the better off you will be halfway through the race to know how you can push yourself. The trick is to train at shorter than race distance so you can go at race-day intensity on a midweek workout. When race day comes along, the extra distance will take care of itself...if you just don't start out too fast!



Thinking about competition?

There is an event coming up in March that is a combination of hard rowing and teamwork. The Concept2 Rowing Challenge is a 2000-meter relay race that will take place at IHRSA's 26th Annual International Convention and Trade Show in San Francisco on Friday, March 30, 2007. It is an indoor relay race of four athletes who each row 500 meters. The winning team will be sent to the FIBO fitness trade show in Essen, Germany, to participate in the Concept2 International Indoor Rowing Regatta in April 2007. For details on how to enter your team, visit concept2.com/relay or call Tracy Desrocher at 877-887-8467.

Peter Dreissigacker, along with his brother Dick, founded [Concept2](http://concept2.com) in 1976. At the time, they were competing for a spot on the U.S Olympic team, and they saw a need for a lighter, stiffer, faster oar. After a series of kitchen experiments with carbon fiber and fiberglass, they developed the first viable, affordable composite racing oar to hit the market. In 1981, they developed the first Concept2 indoor rower, which rapidly became the standard for wind-resistance indoor rowers.

In addition to his work at Concept2, Peter continues to row competitively both on and off the water, with some backcountry skiing for variety in the winter. He also makes time for painting and drawing, and at 55, is a novice piano student and closet accordion player.