

the **CrossFit** JOURNAL ARTICLES

Inside-Out Breathing

Getting the Air You Need

Terry Laughlin

One of the major differences between swimming and land-based sports is that breathing in the water is a skill, and a fairly advanced one at that. In recent weeks, since opening a new Swim Studio in New Paltz, NY, I've spent many hours teaching in an Endless Pool, where proximity to my students has allowed me to observe the extent to which breathing comfort is essential to their progress and success. This has convinced me that, until breathing becomes routine, effective focus on other aspects of the stroke is impossible. But once students master breathing, other skills follow much more rapidly.

Breathing is such a natural activity that we seldom give it a thought. The only time we even become conscious of it is when we're breathless from exertion or, well, panic. Or, in the case of swimming, sometimes both at once.

There is probably a greater range of breathing skill in swimming than in any other activity. Elite swimmers can breathe effortlessly while maintaining perfect form at maximum exertion and world-record pace. Seasoned open water swimmers can do the same with waves or chop smacking them in the face or a pack of churning swimmers at their elbows. At the other extreme,



novices may be unable to experience any comfort so long as any part of their face or head is in the water, and the challenge of getting air can be so all-consuming that they have no presence of mind left to focus on form.

Breathing is unquestionably the most fundamental of all swimming skills. If you can learn to do it nearly as well and automatically

in the water as on land, it helps calm and focus you to work on skills. It also provides the aerobic capacity to swim long distances and fuels the power you need to swim at maximum speeds. Finally, swimmers who master aquatic breath control can use breathing skills effectively to relax, to improve their ability to concentrate and deepen self-awareness while working on skills, and to recover more fully and completely from any level of exertion. Since you have no choice but to breathe while swimming, why not choose to become a true master of aquatic breath control?

Bad air out, good air in

For most folks, the most instinctive way to breathe is to pay attention to the inhale but for the exhale to be an afterthought. In swimming, as well as other activities

1 of 2

Inside-Out Breathing (continued...)

that involve enough exertion to lead to breathlessness, it should really be the opposite. Focus on the exhale; let the inhale take care of itself.

Here's why: Each time we take a breath, the air that goes into our lungs is about 21 percent oxygen and the barest trace carbon dioxide. The air we exhale is about 14 percent oxygen and nearly 6 percent carbon dioxide. What this means is that, when we feel "out of breath" it doesn't mean we're suffering a lack of oxygen, since we consume only about one third of the oxygen we take in. That breathless feeling is actually caused by an increase in the level of carbon dioxide in the bloodstream. Thus, to maintain a sense of relaxation and comfort, you should focus mainly on exhaling fully, because that will clear more accumulated carbon dioxide. You can heighten your awareness of the distinction between inhale-focus and exhale-focus through a series of exercises we might call "inside-out breathing." You can do this while sitting comfortably at your computer as you read this:

1. Start by actively and emphatically drawing air into your lungs. Exhale by simply releasing it, rather than actively pushing it out. You can do both through your nose. Repeat five or six such breaths.

2. Switch emphasis by actively pushing air out. You can heighten awareness for this change by practicing a breathing exercise, known as pranayama, drawn from yoga. As you exhale, constrict your throat slightly to produce a rushing sound, loud enough to be heard by someone across the room. As you do, you'll be more conscious of the air passing through your throat than through your nostrils. Repeat 8 to 10 such breaths.

3. Finally, continue your exhale-focused breathing, but consciously shift to making each inhale as passive as possible. See how much of your lungs can you refill simply as a response to the "vacuum" you created with your exhale before needing to switch over to a more active inhale. Repeat until you notice an increase in your ability to refill passively.

Practice breathing focus

The next time you go swimming, I suggest you put your primary focus on breathing, and specifically on using your exhale as a way to both regulate and control effort. Try the following two sets of progressions.

1. Swim some easy 25-yard repeats. On these 25s, let your need for air entirely dictate the speed and rhythm

of your stroke. If it helps, count off your exhales and inhales by one thousands (one-one-thousand, two-one-thousand, etc.) For your rest interval between 25s, take several deep, slow cleansing breaths. When you can repeat 25s with a sufficient sense of ease that you need only three cleansing breaths before starting the next, you can progress to 50-yard repeats.

2. Swim a series of three sets of repeats, with each set lasting 6 to 10 minutes. Choose any repeat distance from 25 to 200 yards. Rest for three (for shorter repeats) to six (for longer repeats) deep, slow breaths between repeats in each set, and for an additional 1 to 2 minutes between sets. Breathe every two to three strokes (not cycles) throughout.

- Swim the first round at a moderate pace, perhaps 65% effort. Maintain consistent effort throughout the set, or increase your speed slightly every few minutes. Put most of your focus on exhaling steadily, beginning as soon as you complete the inhale. As you progress through the set, consciously make the inhale more and more passive.

- Swim the second round at about 75% effort. Support the increased effort purely by increasing the force with which you exhale. Your goal is to gradually feel that a more emphatic exhale, rather than more muscular effort, is providing all the energy needed to support your increased speed.

- Swim the third round faster yet, at perhaps 85% effort. On this round, increase the force of your exhale as needed, but this time put a bit more ...continued from page 10 focus on finishing each exhale—just as your mouth clears the water—with about 20% more force. Feel as if you're blowing the water away from your mouth, making it easier to get your next breath. Continue to focus on a goal of inhaling passively. Certainly you'll gulp more air more quickly, but work on how completely you can make it occur purely as a result of emptying your lungs.

This article is excerpted from *Getting Air*, a special e-book to be published by Total Immersion in December. For more suggestions on swimming sets that focus on breathing skills, visit www.totalimmersion.net/mag-pl.html.

