

Backstroke - The Other Long Axis Stroke

How to use backstroke to enhance your freestyle

By Terry Laughlin

What makes backstroke unique among all the strokes? You're upside down and going backward, you have to navigate without the aid of the line on the bottom or the X on the wall, and you must stroke in a position that provides minimal leverage. Since you can't power yourself down the pool, you need to rely more on finesse. This is not necessarily all bad. Swimming on your back forces you to focus on making your body more "slippery," and this will heighten your kinesthetic awareness. And that awareness will carry over to all your strokes, especially freestyle. In fact, backstroke is the ideal cross-training and recovery stroke if you swim mainly freestyle.

Just ask Alexander Popov, the world's fastest freestyler. Popov, who started out as a backstroker before turning over in his mid-teens and going on to Olympic freestyle glory, still uses backstroke to help keep his freestyle sleek. Why? Because backstroke is freestyle's natural complement. Both are called long-axis strokes, meaning that the body rotates along the head-to-toe axis. (Breaststroke and butterfly are called short-axis strokes because they require that you undulate using the hip-to-hip axis.) As long-axis strokes, backstroke and freestyle share the same sense of balance, body rotation, and body alignment. That means you can use virtually identical drills to learn the basics of each. And, swimmers who become more efficient in one stroke often become faster and more efficient in the other, which makes backstroke the ideal cross-training stroke for freestyle.

Backstroke is also the ideal stroke to use while recovering from a hard freestyle set or workout. While freestyle and backstroke use many of the same muscles, they use them in slightly different ways. In backstroke, the movement is reversed, so easy backstroke swimming can "massage" tired freestyle muscles. The ones that were contracting are now lengthening and vice versa. Besides, in freestyle, the simple act of breathing correctly is a technique and you may tense up if you don't have it just right. Backstroke is more relaxing because you can breathe any time you want. On top of that, you get to take the session with something less than deadly seriousness. A slightly sloppy stroke technique can be brushed off more easily than it could in what most triathletes, swimmers, and cross-trainers consider their primary stroke. The idea is to use "non-prime" strokes for loosening up and waming down, as in a recovery workout, and save your prime stroke for fast swimming with good form.

So why don't more people swim inverted if it's so great? First there's that already-mentioned disconcerting sense of being upside-down and going backward, and, second, difficulty in staying afloat. Fortunately both are easy to fix and once you've gotten comfortable you can go on to make yourself sleek and slippery and, ultimately, fast.

1. Get your bearings. Use a line of tiles or lights or other markings on the ceiling to help you set a straight course. Failing that, just hug the lane line. Most pools have a set of colorful pennants hanging across the pool near each end wall. Swimmers call them "backstroke flags" because they warn you that the wall is 5 yards (three to four strokes) away.

2. Balance on your back. On your back, you keep your butt from sinking by hiding your head and leaning on your shoulder blades. Keep your ears below the surface; only your face should show above it. Once you have your head position set, it remains fixed; never move it. Then lean on your upper back until your hips and legs feel light. That will help you ride the waves like a pro, relaxing as you go. Now you're ready to get sleeker.

3. Shape your "vessel." With finesse so important, backstrokers must be good "vessel shapers"...or have been born with a good vessel. From John Naber to Jeff Rouse, an unusual number of world-record holders (including Masters world-record holders such as 46-year-old Laura Val and 71-year-old Roger Franks) have been tall and whippet-like, with long limbs. Even if you haven't been similarly blessed by natural endowment or if you don't aim to set records, there's still much you can do to enhance your own backstroke by creative body positioning and vessel shaping. Best of all, the most important skills are easily learned and can make an immediate and dramatic difference in your swimming. What's the most important skill? Swimming on your side. And one simple way to imprint this skill into your muscle memory is to make sure each shoulder rolls completely clear of the water in each complete stroke cycle.

4. Swim "taller." A longer vessel is also a more slippery and faster vessel. Though you can't stretch forward as you do while swimming freestyle, you can still swim taller in backstroke in two ways. One is to roll more; your body line becomes a bit longer on your side than when flat on your back. You can increase body roll by exaggerating it slightly in drills and at slower speeds so you'll hold onto the sensation as you increase your stroke rate to swim faster. The second is to stretch your arm overhead--as if reaching for the ceiling--as you recover it. Then maintain that stretch as you slice it into the water.

5. Practice long-axis combinations. A long-axis "combo" is several strokes of backstroke alternating with several of freestyle. You can do this while swimming whole-stroke, or in stroke drills. The long-axis combo helps in two ways. First, the full 360-degree rotation forces you to pay a bit more attention to maintaining a long, clean body line than while swimming either stroke by itself. Second, it reinforces the common aspects of the two strokes. Improvement in your backstroke will more directly benefit your freestyle if you switch between them more frequently. Start by alternating one length of back and one of free, just to get used to switching strokes. Then do a half-length of each, switching at mid-pool. Finally practice switching from one to the other several times in each length (a good combination is four armstrokes of backstroke followed by three armstrokes of freestyle).

6. Move your bellybutton faster. If you follow your instincts, when you want to speed up your backstroke you'll windmill your arms faster. The result: You give up the sleek form you've been working so painstakingly to develop. The best way to gain speed while maintaining form is to make it a habit to swim faster by moving your bellybutton from side to side faster. If you adjust your speed in your hips, it is far more likely that your arms will stay in synch with them. Practice by doing 25-yard pickups, or 50-yard negative splits. The only thing that should change is your hip-rotation speed.