

Treadmill for Swimmers

by Susan Dawson-Cook

TAKING AN ENDLESS POOL FOR A ROAD TEST



The author swims breaststroke in the Endless Pool at TriSports in Tucson.
Photo by Christopher Ferko

Magazines and glossy brochures

boast of swim-in-place pools that can be installed in any small space in and around the house: buy one of these and before long, you'll be swimming in your basement or garage any time day or night.

As a former competitive swimmer and current recreational Masters swimmer, I found the concept appealing and off-putting at the same time. If I could swim without leaving the house, perhaps I'd put in more distance each week? But would swimming in place be enjoyable or merely frustrating? The only way to find out was to give one of these "swimming treadmills" a test drive.

Days later, I was donning my swimsuit in a changing room at Trisports, an online and retail triathlon store based in Tucson. I would swim in one lane in the facility's two lane Endless Pool, beside a swimmer receiving instruction from Geoff Glaser, a co-founder (with Jeff Cummins) of Dolphins of the Desert Swimming Academy.

The Trisports pool, custom built to meet the company's needs, is larger and deeper than the standard 8 foot x 15 foot x 42 inch dimensions; it has a current-creating propulsion unit in each of the two lanes. A poolside knob enables the swimmer to increase the pressure and resultant current from the propulsion unit, which can move up to 5,000 gallons of water per minute. Current can be adjusted to match the swimmer's skill level or to compensate for transitions to different strokes, such as breaststroke, butterfly, and backstroke. Even kicking drills can be performed in the pool.

It took several minutes for TriSports Manager Susan Meeker, to match the current to my swimming ability. At first, I was barely moving. Then, as Meeker cranked up the knob to nearly full throttle, the motor's whine intensified and swimming upstream quickly left me exhausted and out of breath. Once we established equilibrium between current and my stroke, I fell into my normal freestyle rhythm. Without all the wall turns, the experience reminded me of open water swimming, except I didn't have to lift my head forward to site on

buildings or buoys. My arms transported me into a comfortable zone and soon I heard a favorite song playing in my head. An underwater MP3 would make this even better, I thought, if the music could be heard over the whining motor.

Swimming too close to the propulsion unit, my goggles filled with water and my skin pressed back from my face as if I was being whirled through a high gravity chamber. I eventually established a comfortable distance from the current generator; my goggles remained water-free, yet I could see my reflection in an angled mirror that was tilted toward me at the end of the pool beneath the underwater propulsion unit. My image in the second mirror, a long rectangular mirror which lay flat on the deeper-than-normal bottom, was too obscure for me to monitor my stroke.

I found myself curious about distance and time. If only there was an underwater digital clock, I thought. I later learned that Endless Pools sells a six-inch digital pace display, which can be mounted on the edge of the pool. The user simply adjusts the current with a wireless remote control to display pace per 100 yards or meters. Also offered is a digital swim meter, which tracks speed and distance in miles or meters.

When swimming freestyle in a pool, I often breathe every stroke. In the Endless Pool, I found myself breathing less often, wanting to spend more time watching my kick and the placement of my hands in the underwater mirror. I'd never seen my

stroke before, in either a mirror or on videotape. I found myself paying more attention to the particulars of my arm pull, and trying to maintain a more consistent kick.

When I switched to breast stroke it felt fabulous. With the ebbs and flows in the power of the stroke, I moved closer and then farther from the propulsion unit, which reminded me of swimming away from the shore in the ocean and being pulled back by the undertow between waves.

I enjoyed kicking most of all. At the lower intensity, the sound of the motor was nearly undetectable. I imagined swimming in my back yard, clutching my kick board and kicking freestyle and breast stroke while I watched Headline News on a high definition TV suspended above the end of the pool.

I loved being able to study my stroke in the underwater mirror, the sensation of uninterrupted swimming — free of repeated turns — and fantasizing about being able to swim at home. The down side was listening to the whine of the motor, swimming inside, and the boredom of going nowhere.

If I owned a swimming treadmill, its motor would be put to good use. It wouldn't be in our basement (partially because we don't have one) or our garage, it would be in our back yard, where I could feel the sun on my shoulders and breathe in the scent of jasmine. I would dive in to wind down after a difficult day, to squeeze in yardage on days when I was

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too swamped by deadlines to leave the house, or just because the water is my favorite place to be.

But despite technology's great advances, I could never completely abandon the traditional swimming pool, partially because of the physical experience, partially because of nostalgia. In so many Ohio pools, starting when I was 12-years-old, my teammates and I swam best times, worst times, laughed and cried and even once got kicked out of a Best Western for jumping on beds and having potato chip fights. But even now, when I stroke from end to end, new memories are created whenever I enter the water.

A Tool for Stroke Analysis

Terry Laughlin, Founder and Head Coach of Total Immersion Swimming in New York (totalimmersion.net) has used the Endless Pool products extensively with clients and for his own training for nearly three years.

"I've seen that we can accelerate most outcomes by a factor of three to five compared with our experience teaching in regular pools," Laughlin says.

The pool enables instructors to have more control over students in the water. "We're almost always in the pool with them, so if anything isn't in the right position or moving in the right direction or the timing isn't what we want, we manually correct it instantly."

Laughlin recommends placing a large rectangular mirror directly below the swimmer on the pool bottom to study stroke.

"You can watch yourself move from extension to catch to stroking," he says. "We ask our students, while swimming at a given current speed to see how much they can slow that action without losing ground in the current."

Later, current speed can be increased incrementally with the student attempting to maintain ground without increasing hand speed.

"The combination of current and mirror produces an effect something like voodoo," he says. "You know instantly when you've made a more advantageous choice. If it's a better choice in evading current, it's suddenly easier to remain in place over the mirror. If it's a better choice in creating propulsion, you suddenly surge forward. The intensity and immediacy of that feedback is priceless."


Laughlin trains in the Endless Pool (EP) about 25 percent of the time. He says EP training helped him become the top-ranked USMS Long Distance swimmer in the 55-59 age group in 2006. Laughlin has won more USMS Open Water championship events than any other swimmer in his age group since he turned 55 two years ago.

Laughlin doesn't concern himself with pace while training in the EP. "In the EP, I'm mainly interested in exploring stroke adjustments."

Elite swimmers establish a solid "grip" on the water before stroking while the other 95 percent swim with more of a windmill style, which results in more turbulence than forward propulsion, he says.

When teaching freestyle, Laughlin tries to get the swimmer to spend "a bit more of the stroke cycle in a hydrodynamic position — with the lead hand extended through a portion of the recovery of the other hand." He also emphasizes the importance of establishing a good gripping surface with the lead hand and forearm and drawing power from weight shifts rather than just arm muscles.

Laughlin works through this process during his own training. He might focus on a series of focal points on the catch of his stroke in freestyle, for example, starting with a wider placement of the hand and elbow. He works through each focal point until he maximizes his sense of ease and control and then increases current until he can no longer sustain that sense of ease. He will slow the current when advancing to the next focal point. Once he establishes a favorable link between a specific focal point, he will practice that for a longer stretch, perhaps 30 minutes, "to imprint the tweak in muscle memory."

"When racing, unlike runners and cyclists who can look at pace times or speedometers, swimmers can be guided only by kinesthetic perceptions of relative speed and pace — the 'clock in the head' as coaches call it." Training for whole summers without a watch or pace clock "gets me far more focused on the essence and process of how I move through the water," he says. 

Interested in a Swimming Treadmill?

The best way to decide which product will best meet your needs is to give one a test swim or talk to other swimmers or coaches about their experiences. Make sure the company provides reasonable warranties on all equipment and that reliable customer service is available.

Endless Pool

endlesspools.com
TriSports, 4495 S. Coach Dr. in Tucson, is an authorized dealer. Toll Free 1-888-293-3934; Local 884-8743

Endless Pool provides the pool with propulsion unit and the basic accessories. Fast Lane is a propulsion unit attachment unit to add on to any pool.

A wide variety of accessories, such as a pacing unit, underwater mirrors and waterproof MP3 player is available.

Swim in Place Systems

fiberliner.info

Swim In Place Systems offers several models: the Exerswim Crosstrainer 24, designed for average swimmers, speed up to 6 mph; the Exerswim Protrainer 36, designed for athletes, speed up to 8 mph; and the Badustream Treadmill, propulsion units for new pool installations that are designed for recreational swimmers.

swimex.com, riverpool.com and hydrohottubs.com are other online swimming treadmill sources