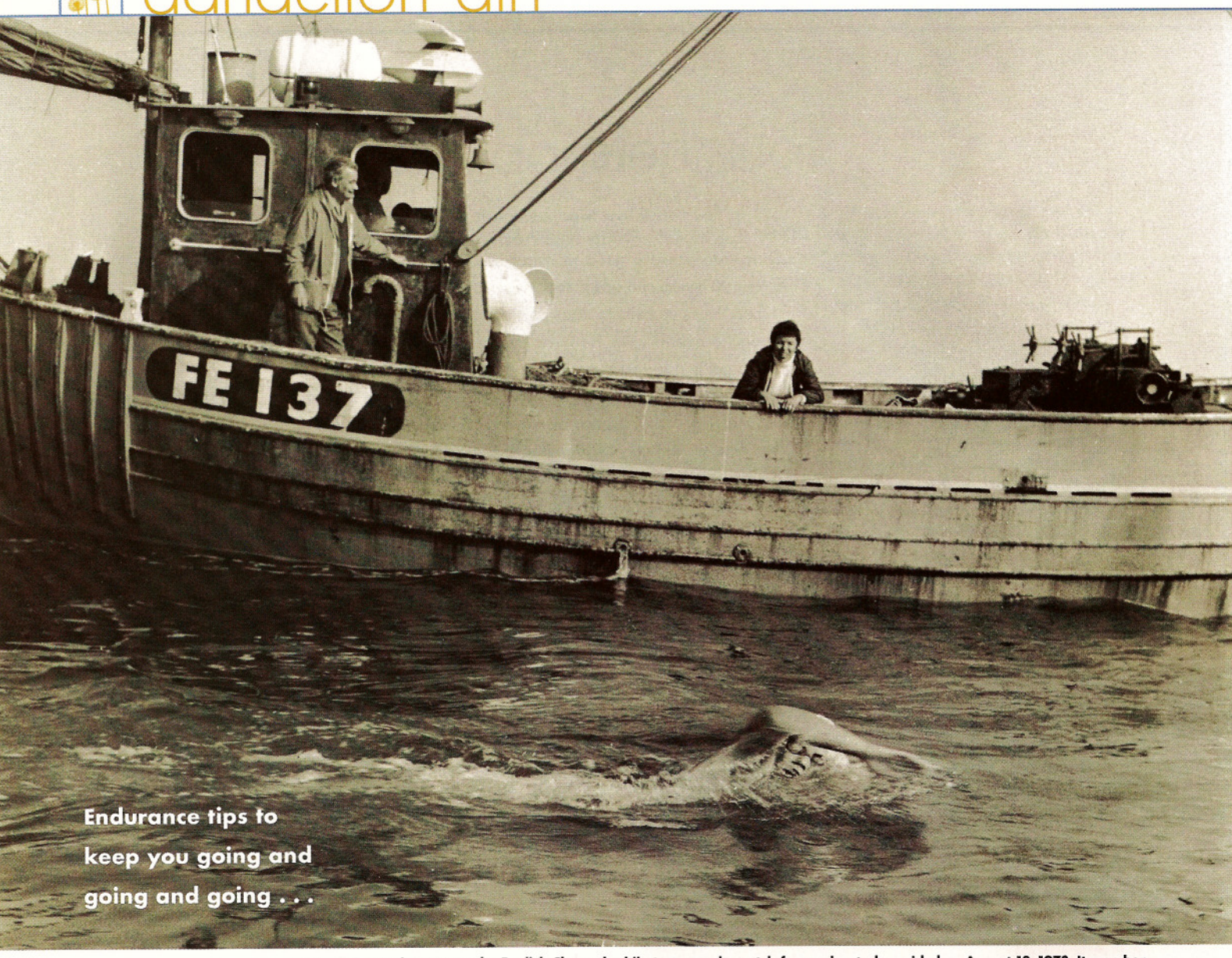


Endurance tips to keep you going and going and going . . .

Lynne Cox swims across the English Channel while two people watch from a boat alongside her, August 18, 1973. It was her second crossing, and her time of nine hours and 36 minutes resulted in her besting both the men's and the women's records.

PHOTO: EPOQUE/PICTORIAL PARADE/GETTY IMAGES

long-lasting tricks

BY JESSICA RIDENOUR

Once upon a time, when we had only our own two feet to get us around, hardcore endurance was more of a necessity than a sporty ambition. Now that we have automobiles and airplanes to get us from point A to point B, enhancing our endurance becomes an intimate endeavor. We run marathons or cycle 100-mile tours for the pure satisfaction of the feeling it gives us. Ocean swimmer Lynne Cox explains why she puts in serious open-water mileage this way: "It's challenging, exciting, and a natural high," she says, "and it gives me a chance to explore the great waterways of the world." In other words, we do it for the rush.

Long-haul endurance has two separate but interrelated variables: aerobic capacity and muscular aptitude. Aerobic capacity is the ability to exercise over extended periods of time, relying heavily on the body's oxygen intake. "Aerobic endurance is primarily a function of the heart's ability to

pump blood and deliver oxygen to the muscles so they can keep making energy," says Forrest Dolgener, PhD, professor of physical education at the University of Northern Iowa. The other variable is slow-twitch muscle fiber, which contracts slowly and conserves more energy than its fast-twitch counterpart on which sprinters rely.

Both aerobic and muscular endurance have a genetic component. "Genetics has been cited as contributing between 20 and 50 percent of physiological function and exercise performance," says Lori Greenwood, PhD, associate professor and director of graduate athletic training and sports medicine at Baylor University.

Although physiology counts, it's not everything. "The good news is that everyone can increase and maximize their endurance capacity within their genetic potential," says Dolgener.

To maximize your endurance, however, you have to get your butt moving. "To make gains in endurance, the individual must continually overload the body's aerobic system for improvement to occur," Greenwood says. "But this must be done safely and gradually," she warns, "or the overload will cause injury and a reduction in performance. Whenever a new stress is placed on the body and its tissue, that tissue needs time to adapt to the change or it will break down and injury will be the result."

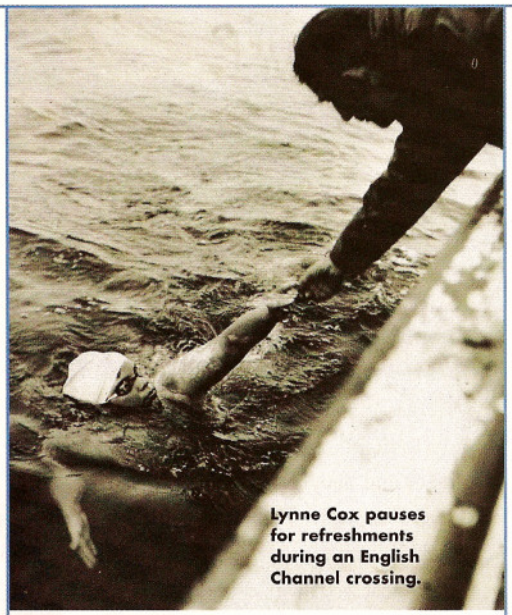
Prevent injury by taking appropriate precautions:

- Warm up by doing some slow jogging or cycling to elevate your heart rate.
- Gently stretch your muscles to get them ready to move.
- Stay hydrated with either water or a sports drink.
- Finish off your training session with some cool-down stretching.

Endurance training doesn't have to be torturous. Whether you're a cyclist, a swimmer, or a runner, these tips will help you give the Energizer Bunny a run for his money:

- Build a base by starting slowly. If you're not already in decent shape, begin with some brisk walking for the first few weeks.
- Once you're in good physical condition, increase your time and/or distance each week by about 5 percent.
- One day per week, substitute cross training for your regular workout. For example, if you're a runner, try bicycling, swimming, or yoga that day.
- Take at least one day off per week. This is your day to rest. Relax!
- One week per month, taper your routine back down to beginner status. This will keep you from burning out and will give your body a chance to recover.
- Keep track of your heart rate with an electronic monitor, or use the old-fashioned way of taking your pulse for 15 seconds and then multiple that number by four.
- Strive toward your maximum heart rate (MHR) with each training session. The simplest way to find your MHR is to subtract your age from 220 and then multiply by 0.7. For example, the target heart rate of a 30-year-old would be 133.
- Two minutes after you finish exercising, clock your heart rate again. A heart rate that quickly returns to normal is a good indicator of your progress. Recovery happens faster the fitter you get. As your endurance level improves, you'll also find that your resting heart rate is naturally lower. ❊

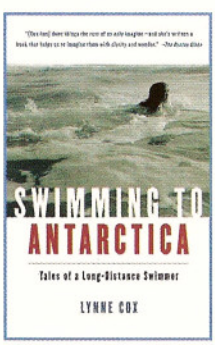
PHOTO: HULTON ARCHIVE/GETTY IMAGES



Lynne Cox pauses for refreshments during an English Channel crossing.

We spoke with Lynne Cox about her own training regimen and asked if she had any suggestions for us wannabes. "The way I train may not work for everyone," she says. "It might be a great guideline, but you have to figure out what works for you." Here are her tips.

- **Be kind to yourself.** "Build up gradually. Give yourself big breaks. Give your body time to adjust. Overtraining can tear you down."
- **Eat right for you.** Lynne doesn't change her eating habits to prep for a big swim. She likes to have "something in the furnace" during a long paddle, like half a bagel with peanut butter, which keeps her from crashing afterward, as well.
- **Stay positive.** "For longevity the mental attitude of going out there and enjoying it is just as important as anything else," she says.
- **Take time to relax.** Lynne's rest days call for time with friends, walks with her dogs, and yoga.



Lynne is the author of *Swimming to Antarctica: Tales of a Long-distance Swimmer.*