

ARE YOU ON A TRAINING PLATEAU



by Susan Dawson-Cook >>> illustration by Rick Gutierrez

For some athletes, adversity is a great motivator. Every swimmer today knows the story of Dara Torres, 41, the four-time Olympian who won four gold medals and set three world records from the early 1980s until 2000, when she took a leave of absence from her sport to start a family.

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Torres returned to the pool after her daughter's birth in 2007, training toward her fifth Olympic games this year in Beijing.

Surely there were days when Torres doubted she could get her aging body back in prime condition. Torres exhaled those negative thoughts like so many underwater bubbles as she rocketed through the water in the Olympic Trials in Omaha, where she not only qualified for the Beijing Games in both the 50- and 100-meter freestyle, but also bested her previous times and set a new American record in the 50.

So what separates the Dara Torreses of the world from swimmers who find themselves in a rut and never seem to get out? In reality, most

swimmers experience a plateau or decline in performance at some point in their careers.

Work and family commitments often prohibit Masters swimmers from training as much as they desire. Although this challenge is often a constant, making the most of every practice, and tweaking (or sometimes doing a major overhaul) of other variables, can make a world of difference. Improper diet and/or training, poor flexibility, inadequate recovery, the lack of a goal, and poor attitude can all inhibit a swimmer's progress.

"If you want to continue to

improve, you must have new stress on the body," says Genadijus Sokolovas, M.D., director of physiology for USA Swimming, who traveled with the Olympic team to Stanford, Singapore and Beijing. "Every biological body adapts to stress," usually in three to four weeks.

Trainers seem to agree that to experience continued improvement, swimmers must change something. Masters swimmers who do the same workouts every week often hit a plateau. One way to add new stress is to increase workout volume and/or intensity.

Increasing training volume

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isn't always an option when time is limited. Prior to the Olympics, Torres trained only five times per week for about 90 minutes. Instead of changing volume, she adjusted other variables. Implementing more challenging swimming sets and/or new training methods are options open to everyone.

Swimming with paddles, kicking, or using surgical tubing or drag suits all add new stresses, Sokolovas says.

Sixty-year-old Ford Aquatics Masters swimmer Hop Bailey of Tucson, Ariz., who has repeatedly made the USMS Top 10 in the 400 and 800 freestyle

and 200 and 400 IM, says swimmers often misuse training tools, particularly fins. Rather than using them as a crutch, Bailey uses fins only occasionally to help him improve flexibility in the spine and give him a feel for going into turns at race pace.

Sokolovas says a swimmer should map out the entire season, inserting highest intensity workouts mid-season and modifying the training schedule along the way as needed, depending on progress. He and business partner Steven Munatones have designed the Swim Performance Training Software

(www.swimperformance.com) which enables athletes to enter variables including gender, age, events and goals to design optimal training programs.

Workout quality is essential for improvement, says Ahelee Sue Osborn, assistant coach for the Irvine (Calif.) Nova Masters Swimmers. Osborn recently attended the Western States Clinic, hosted by Mark Schubert. The workshop emphasized building sets that work every piece of a swimmer's race. For example, IMers have the start, turns, transition turns, streamlining and each individual stroke to con-

sider. By working each piece in workouts, a swimmer can go into a race with amazing confidence, Osborn says.

Fifty-year-old Jon Klein, who has been swimming Masters since 1991, has learned from experience the importance of training smart. Some of Klein's most recent swimming accomplishments include setting a world record in the 200-239 men's SCM medley relay in March 2007, winning the 50-54 50 backstroke at LCM Nationals in 2007 and the 50-54 100 backstroke at the 2008 SCY Nationals in a time under the national record.

Klein occasionally trains with the Tar Heel Aquatic Team or the North Carolina Masters, but more often today practices alone or with a swimming buddy. People at practice tend to aim for maximal yardage with very little rest, he says. As a sprinter, Klein needs to do quality repeats with lots of rest.

"I believe that if you want to swim fast, you have to practice swimming fast," he says.

Klein began this process of revamping his training methods in 2000, when 12 Masters swimmers, including Klein, were invited to participate in a USMS/USA Swimming/USOTC training camp at the USA Swimming headquarters in Colorado Springs. Sokolovas gave Klein a workout program prescription to help him improve different energy systems. Since then, following Sokolovas' guidelines has drawn Klein nearer and nearer to times he swam 30 years ago.

Klein's workouts include a day of long, easy, aerobic training, a mixed anaerobic/aerobic workout, what he calls a lactic acid day (very high intensity sets with moderate rest) and then a sprint day, which includes work on speed off the blocks.

Many other swimmers, including Jason Lezak and Paul and Laura Smith, have found it advantageous to customize workouts, rather than to follow boilerplate programs. "I'm a pretty vocal advocate of more specific training programs (for open water versus pool, for sprinter versus distance swimmer versus fitness swimmer)...and in general I adapt my training from the assigned workouts quite a bit," says Arizona Masters swimmer Paul Smith.

Smith and his wife, Laura, travel more than 100 days per year for work, and so they train with various teams, adapting workouts while making every effort not to inconvenience fellow swimmers. Since 1999, Paul Smith has amassed 130 individual and 23 relay USMS

Top 10 rankings.

Lezak, 33, "works out alone or occasionally with a buddy," reports Osborn, who often observes him training in a lane near her swimmers. Lezak set an American record in the 100 free at the recent Trials, gaining himself a berth at the Beijing Olympics. "He knows what he needs to do," Osborn says.

Although it is said you can't teach an old dog new tricks, Osborn says "it's absolutely possible" to overhaul stroke technique if a swimmer has the desire. Osborn experienced some significant drops in times as a result of working on her technique with her head coach, Mike Collins. On the other hand, she suggests not changing stroke dramatically mid-season and always asking, "Is it necessary?" If you look at the Olympic Trials, all these swimmers were raised on the newer style breaststroke, Osborn says. At the Masters championships, "you see a huge mix of styles, including some really fast, old, flat-style breaststroke."

One Masters swimmer who has been successful with this old-style approach is Californian Jenny Cook, 50, who went to the Long Course Nationals in Portland this year seeded No. 1 for breaststroke in her age group.

But Osborn says swimmers who need to make major changes must break down their strokes and totally relearn the kicks, pulls and turns, practicing each piece independently before reassembling them anew. Even swimmers who don't want to relearn strokes can work on improving turns and new streamlining techniques that will keep them underwater longer and make their turns more aerodynamic.

Osborn emphasizes that swimmers should establish clearly defined goals to stay motivated and adhere to their training programs, regardless of whether they intend to compete. Among her and Mike Collins'

400 or so swimmers are serious pool competitors, open water swimmers and triathletes, along with others who just aim to lose weight or get back into shape after having a baby.

"I try to get to know every swimmer," Osborn says. "I want to know why they are training." If she doesn't see someone for a while, Osborn contacts the swimmer via email. When they stop coming or start swimming badly, "generally they have lost sight of their originally established goal or they don't have one," she says. "Very often, the interaction I have with people is about that [reestablishing goals]."

Osborn says sometimes someone who has been swimming for 25 years and isn't seeing any improvement isn't finding the sport so exciting anymore. "Finding a fresh way to look at it can bring back that happy feeling inside."

The social aspect of the sport is an important consideration.

"Some of the research that has been done on this campus shows a peer group is essential in keeping people invested in an activity program," says Joel Stager, professor of kinesiology at Indiana University and director of the Councilman Center for the Science of Swimming.

Changing strokes or distances also can be beneficial. "I never swam backstroke," Osborn says. "Backstroke has always been my worst stroke." She started working on it about a year and a half ago and in the 2008 FINA World Masters Swimming Championships in Perth, "I won the 100 and 200 back. It was a change of my attitude and consciousness about the stroke."

That experience convinced Osborn how much mental outlook affects outcome. Osborn says meditation has also helped her maintain that "happy heart" enthusiasm for swimming that has enabled her to continue besting her times at age 50. In

addition to being an outstanding pool swimmer, Osborn has finished nine Ironman events and competed in other triathlons, biking and running races.

This busy and varied schedule has kept her excited about training and competition over the years. Maintaining basic athleticism enabled Dara Torres to come back to the sport in full force. "She (Torres) has never been unfit. She has always pursued some sort of strenuous exercise.... I have always been like that too," Osborn says.

"Stretching should be a part of the everyday routine," Sokolovas says. Studies show that stretching and warming up strengthens muscle spindles, reduces injuries, delivers nutrients to and releases waste products from the muscles. Sokolovas suggests a 10-minute stretch before and after each workout.

Over time, stretching can improve range of motion in muscles and joints. Flexibility,

especially in the ankles and lower body, can enable a swimmer to significantly increase propulsive forces in the water.

"If you look at underwater videos of top swimmers [such as Ian Thorpe and Michael Phelps] you will see they are both very flexible in the lower extremities." They are able to push back more water than other swimmers, which propels them quickly through the water, Sokolovas says.

Masters swimmers typically take longer to recover from hard training than younger swimmers. That rest day (or days) from training each week and proper nutrition are critical for recovery. Sokolovas recommends that swimmers drink juices or eat bananas or other carbohydrates during or immediately after a workout to replenish muscles. "As a result, you will be fresher for your next workout."

The average Masters swimmer doesn't eat properly either,

Stager says. While kids are wielding pizza and hot dogs at meets, Masters swimmers may skip lunch after a noon practice or drink diet sodas, which offer no nutritional benefit. Post-workout is the most important time to refuel the muscles, which is crucial for recovery, says Stager, who recommends chocolate milk for its balance of protein, fat and carbohydrates.

Low carbohydrate diets don't make sense for athletes, Stager says. Carbohydrates fuel the body, but not just any carbohydrate. The quality of the carbohydrate is important. Whole grain breads, cereals and pastas are more beneficial to the body than cookies and potato chips which tend to be loaded with artery-clogging fats.

Injuries can result from improper training.

People tend to blame shoulder problems on hand paddles or excessive yardage, when poor stroke technique is a common

culprit, Osborn says. "When someone is having pain in some part of their body, I want to get with them and look at their stroke."

Common errors during freestyle include allowing a pulling arm to slip beneath the body; not connecting shoulders and hips or engaging the core while swimming; and allowing the hand to cross over in front of the head when catching the water. Swimmers can have their stroke videotaped or work with a stroke coach.

Klein says poor freestyle technique led to his rotator cuff tear in 2000. After two years of physical therapy, Klein opted for surgery, and three months later, was in the water again, improving his technique, a strategy that to date has prevented further shoulder instability.

Also plagued by lower back pain and sciatica, Klein added a core-strength-based dry land

exercise program, which has kept him pain free for the past three years.

"Far too many swimmers just work on the physical part of their swimming," leaving the mental part to chance, says sports psychology consultant Dr. Alan Goldberg. "They ready their bodies and hope that on the day of the meet their mind will show up. All the physical training and stroke technique work in the world won't help you if you get too nervous, concentrate on the wrong things, are unable to let go of past bad swims, think negatively or lack self-confidence," Goldberg says in an article on his website, www.competitivedge.com.

Australian hypnotist Craig Townsend, director of the sport psychology group, "It's Mind over Matter," has provided mental training for athletes for more than a decade. Townsend suggests inhibiting thoughts about beating this swimmer or achieving this or that goal and just allowing the body to do what it has been trained to do. He says anxiety can cripple a swimmer, and quotes Australian freestyle swimmer Ian Thorpe, who, when asked what goes on in his mind during a race, said, "I don't know. I try and...let my body do what it knows."

"We feel more pain whenever we are in a highly stressed or emotional frame of mind," Townsend says. Under more relaxed circumstances, the subconscious mind partners with the body's immune system to temper discomfort.

Townsend says athletes can learn techniques to "trick" the subconscious mind into releasing chemicals already in their bodies to kill pain naturally and legally. He worked with a successful long distance swimmer who imagined that she was moving pain from her legs into a steel box swimming beside her. As soon as she imagined the lid of the box snapping shut, the pain disappeared.

Many swimmers are swimming faster than ever in their 40s and 50s. A lot of this success boils down to attitude, Townsend says.

"Basically our beliefs are self-fulfilling prophecies which always turn out to be correct." The supposed 4-minute mile barrier in running is just one example of a once-believed impossible barrier overturned. Once Roger Bannister showed it was possible, other people began breaking the record.

"Aging is being redefined," Stager says. "There is so little data on the aging athlete.... A lot of our data suggests there may be as much as a 15-year offset [in body versus chronological age]. Dara Torres has set the bar. What Dara did is unprecedented... she's just demonstrating in essence what's possible."

Townsend says successful swimmers tend to have excellent body awareness, and know the mental and physical conditions required for optimal performance.

"This kind of information is truly powerful – because it ensures they can pinpoint and troubleshoot most issues early, quickly and easily, and ensure they maximize all the aspects that help their performances, and minimize the aspects that do not," he says.

Klein attributes his recent speed gains with the experience that comes with age. A better diet, more appropriate training and mental toughness have given him a competitive edge over many teens and 20-year-olds.

"Dara Torres – how many races does she have under her belt? She can bring the right mental state" to the blocks, Klein says.

And so can Klein, Osborn, Lezak, Smith, Bailey and many other Masters swimmers. <<<

••• **Editor's Note: At press time, Dara Torres had not yet competed in the 2008 Olympics. For detailed swimming results from the games, go to www.nbcolympics.com.**

