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Six Things Triathletes Wish They Knew

Safety Tips for Open Water Swimming

Slicing the Triathlon Training Pie

Building an Efficient Freestyle

Maximizing Open Water Sighting Efficiency

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Six Things Triathletes Wish They Knew

How swimming with a Masters Swimming club can give you an edge

Every triathlete knows how important it is to have the right shoes, the right bike, and the right nutrition plan. We buy power meters and carbon fiber water bottle cages, and we practice for hours to shave every possible second off our transitions. But many triathletes are missing a great opportunity to find extra speed.

You may have watched swim teams practice and thought, "That's not for me—I'm never going to do flip turns or race butterfly." But swimming with a Masters Swimming club *absolutely* will make you a better triathlete. Here's why.

1. Technique is critical

Triathletes know how important aerodynamics are on the bike, yet hardly think about the fact that **water creates 1,000 times more resistance than air**. A few minor corrections in swimming form reduce drag far more than a redesigned bike frame could. A Masters coach can show you how to go faster and save energy by minimizing your bodyline as you swim.

2. Swimming other strokes in workout pays off

Fast swimming requires **developing a "feel" for the water**. Swimming other strokes (with proper coaching guidance) helps you learn to instinctively adjust your hydrodynamics (body position, hand angles, etc.) so you know how to get around buoys, deal with waves, and get the most thrust from your freestyle pull. Olympic triathlon bronze medalist Susan Williams says, "Other strokes teach you to move through water efficiently, and balance muscle development to avoid injury."

3. Training without a wetsuit makes you faster

A wetsuit's buoyancy can mitigate some stroke flaws, but you're better off if you actually *eliminate* those flaws. Learning to swim efficiently without a wetsuit means you'll **use less energy on race day**. "I love swimming in my wetsuit," says Haley Benson, age-group winner at the 2013 Boulder 70.3, "but I'm more efficient because I've learned to swim well without it."

4. Lanemates make you stronger

Benson says, "If you want to swim faster, then you have to swim with fast people." Not only does friendly workout competition make you work harder, but you can also **learn a lot about pacing, drafting, and race strategy** from swimming in an organized group. You'll also make friends who will become great training partners.

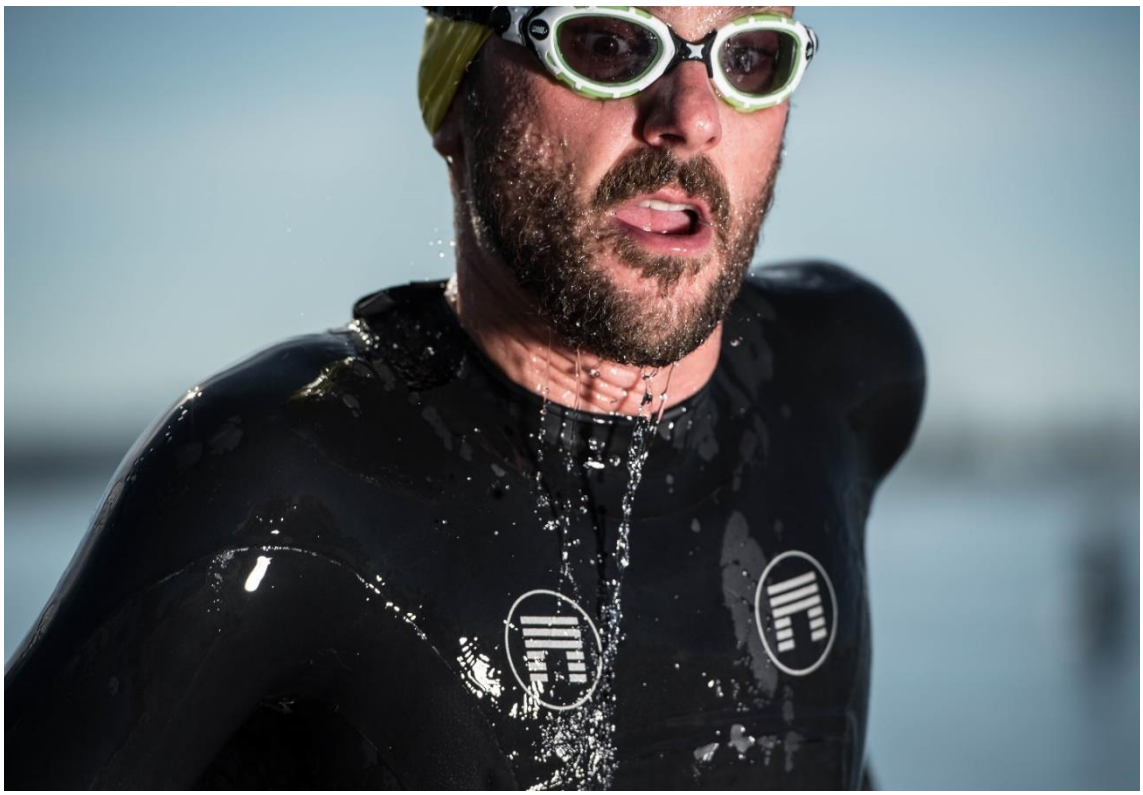
5. It’s good to have some fun

Triathletes do a lot of solo workouts, which requires mental focus that’s tough to maintain throughout the season. It’s a treat to delegate the planning and feedback responsibilities to your Masters Swimming coach, so you can just **immerse yourself in the workout** and enjoy it. A creative workout and a lane full of friends keeps swim practice from ever becoming boring.

6. Extra eyes mean extra speed

An online tri coach can write challenging sets, and a DVD might show you proper technique, but without direct feedback, you may not recognize your own energy-eating stroke flaws, much less know how to correct them. Williams says, “Small adjustments in hand angle or breathing can mean a minute or more in an Olympic tri swim. Swimming with a team helps you **identify and lock in the right improvements** to gain that speed.”

With these advantages in the arsenal, Masters swimmers show up at the triathlon start line with the extra confidence to dominate the race from the beginning.



About The Author - Terry Heggy
Terry "Speed" Heggy has been swimming for more than 50 years. He won his age group in the 10K Open Water Championship in 2006, competed in the National Championship Olympic Distance Triathlon in 2014, and qualified again for USAT Nationals in 2015. He's the head coach of Team Sopris Masters in Glenwood Springs, Colo., and is a USMS-certified Level 3 Masters coach and an NASM Certified Personal Trainer.

Safety Tips for Open Water Swimming

Get out there and have some fun, safely!

I prefer open water to a pool any day. It doesn't mean I don't have a healthy fear of the critters below or other variables, I do. (I could go on and on about lifeguarding drills, feeling nudges in the water, seeing shadows while surfing, and so on.) But one thing is certain, it hasn't stopped me yet! I love the open water and you can embrace it, too, but not without sturdy safety practices and a few basics.

Here are some basic safety tips and key points to employ when you're planning a swim with some friends or heading to a race or event. This list is not exhaustive, but it's a place to start.

Even if you're participating in a race or organized swim, it's still best practice to remain aware of personal basic safety at all times. Just remember to have fun, keep calm, and create a positive atmosphere for you and those around you. Nature is unpredictable, but unnecessary swim-related accidents can be prevented.

Basic Safety for a Casual Swim with Friends

- **Never swim alone.** First and foremost, never under any circumstances ever swim alone. Did I mention never-ever? Would you scuba dive alone? Of course not! Whenever you're in the water, always swim with a buddy, even if there is a lifeguard. A lifeguard cannot be considered a buddy because his primary duty is to protect and prevent hazardous situations for all patrons, not just you.
- **Check water conditions before entering.** Is it safe for everyone to swim? Are there hazards not immediately visible, such as potential boat traffic? Is the water quality poor or dangerous? Are there any indications that signs could be missing? Could those have been signs warning of a "No Swim" area? Survey the area before you enter and know what to look for.
- **Have a plan for emergencies.** What is your plan should something happen to you or your buddy? Does someone else know where you're going? Will someone be watching from shore, ready to take action in the event you need assistance? Plan for everything and eliminate as much uncertainty as possible.
- **Understand currents, rip currents, and such.** Currents are another variable of open water swimming versus pool swimming. Sometimes you won't know how strong or which direction the current pulls until you get in the water. This topic alone warrants a whole article, but for now, keep the following tips in mind:
    - **If it looks quick, it is.** Be careful, exercise extra caution, and be smart about deciding whether to get in the water.
    - **Ride it 'til it weakens.** If you get caught in a rip current—strong columns of water that rush out to sea and can carry a swimmer a great distance from shore very quickly—your best bet is to ride the current until it weakens, then swim out of it, parallel to shore. Once you're past the rip, you can turn and swim back into shore. If you try to fight the current or swim against it, you will lose.
    - **Stay calm, be safe, and be aware.** Currents happen, and your best defense is to always remain calm and aware.

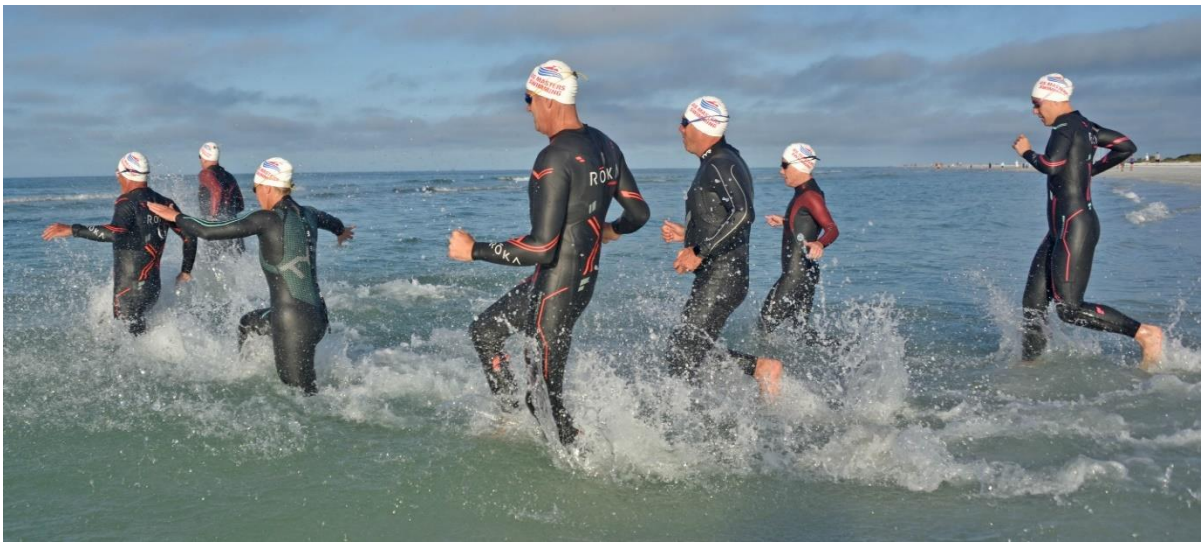
- **Know your surroundings.** Be acutely cognizant of your surroundings. Boats, swimmers, marine life, variable weather and water conditions, and a lot of other elements can threaten your swim. Stay vigilant and get out of the water if you feel threatened.
- **Watch the weather.** If the forecast calls for rain or thunderstorms, it's prudent to not swim. That said, meteorologists are rarely 100% spot-on and weather changes frequently. Double check credible weather forecasting services before you swim. If you hear thunder before or during your swim, get to shore and a safe environment immediately. You do not know how quickly a storm might be moving or where it's headed, so remove yourself from the water and take cover. Then apply the USMS weather safety plan.

Basic Prep for an Open Water Race or Event

- **Always be prepared.** The more prepared you are, the more confident you are and less likely to be overly excitable. Pack the night before so you're sure to have everything.
- **Be confident.** We're all human and despite our feelings that some skills need work or that we're not perfect, this shouldn't stop us from exuding self-assurance. As Nike says: "Just do it!"
- **Go for it from the start but stay calm.** It's good to remember when you're getting in the water, either by a running start from the beach or an in-water start, to always remain calm. If you enjoy the crowd, then create a positive, confident energy other swimmers can contribute to and feed off of; it makes it more fun for everyone. If you're too nervous or just need to avoid crowds, then do your best to place yourself at a safe distance from the crowd. It might be hard to avoid if you're participating in a race, but remember to breathe and keep calm. Some folks feel more comfortable letting an official or someone affiliated with the race or event know that this is their first race or that they're new to open water. The official or volunteer might be able to offer something that could provide comfort, even if it's a few encouraging words. Some events also rely on "Angel Swimmers" to guide and assist nervous swimmers. They aren't at every race, but ask an official if you can have a dedicated buddy for your swim.
- **Remember to breathe.** If you're starting to panic or breathe faster than normal, rein yourself in by taking slow, deep breaths and thinking about something that calms you. If you're in the water when panic strikes, roll over and float on your back until you feel you're ready to engage again. Always keep an eye on land and be aware of your surroundings. You can also look around for a safety kayaker or other support crew and ask for help or a moment to hang on the boat until the panic subsides.
- **Know the drill when drafting.** Drafting is permissible in open water swimming, but it can be tricky to do well. You never know if the person in front of you is a good navigator or someone you'd rather not follow. You might catch up to them and get a hello from their foot in your face—ouch! Just be aware of your direction and those around you; it's OK to draft off another swimmer for a bit, but if you're getting too close, pass and move on to your next target.
- **Sight land and buoy targets carefully.** Know the buoys or the next point you're aiming for and adjust the frequency of your sightings based on wave and water conditions. If it's choppy and there's a current, then you most likely will have to sight more frequently than if it you're swimming in a calm lake or pond.

- **Talk to yourself!** Freaked out? Talk through the situation out loud—only the fish will think you're crazy. Sometimes just hearing yourself talk through the scenario gives you insight as to how best to alleviate the problem. You might even be able laugh at yourself, which is the best remedy. Channel Dory from *Finding Nemo*, when she reminds herself to "Just keep swimming. Just keep swimming." I have found this strategy to be helpful in a few situations.
- **Relax and play!** Got waves? Keep calm and do your best. You might even consider taking on the persona of a dolphin. But, above all, be sure you're safe. There is nothing wrong with heading back to shore if it's just too much. It's better to recognize what you might need to work on before getting into a situation that can turn what should be a joyous day in the water into a nightmare.

These are just a few of many tips for making your open water adventures safe and fun.



About The Author - Yvette McKechnie
Yvette McKechnie is a Level 3 Masters coach who has been a part of the popular DCRP Masters Swim team in Washington, D.C., since 2006. When not in the water, she can be found coaching a variety of athletes from first-timers to iron-distance triathletes.

Bonus Swim Workout #1

- 600 warm-up (200 swim/100 kick, repeat)
- 6 x 50s w/:10 rest
- 25 Tarzan Drill/25 easy (hold your head out of the water to simulate sighting during the triathlon swim)
- 6 x 50s w/:20 rest (25 sprint/25 easy)
- 2 x (4 x 50s) FAST!! w/:10 rest
- 200 easy pull recovery
- 2 x 150s w/:20 rest (50 free/50 non-free/50 free)
- 100 cool down

Total: 2400 yards

Slicing the Triathlon Training Pie

What percentage of triathlon workout time should be spent on swimming?

If you're an experienced, professional IRONMAN competitor, you should spend around 15 to 20 percent of your training time in the water. There, that was easy, wasn't it?

Well, yeah, for *those guys*, maybe. But what about the rest of us? It might not be quite so simple for those of us who have to shoehorn our training in around jobs, families, and annoying household chores. Because the swim leg is so much shorter than the bike and run, it might be tempting to cut *way* back on the swim training. But there's more to it than simple stopwatch math.

Fitness and Feel

Swimming uses different muscles than the other sports, and swimming *fast* requires a fine kinesthetic knowledge of your drag profile in the water and how you're applying force to move forward. To develop and maintain the specific strength and muscle memory to swim well, you must **swim regularly**. For most people who have achieved basic swim fitness and feel, it takes **three swim sessions per week** to maintain it, and at least four swims a week for continued improvement. Each session should be at least 30 minutes.

Improve your technique and power by adding swim equipment and weight training to the mix. In the gym, focus on flexibility (ankles, shoulders), core strength (balance ball exercises), and paddle-muscle strength (triceps, lats, deltoids).

Focus and Feedback

Slogging steadily up and down the pool until your workout time expires merely constitutes garbage yardage. Make sure your swim workouts have a *purpose*, such as learning to swim at your race pace, fine-tuning body position, or improving your drafting technique, etc. There are lots of swim workouts and drills posted online, and plenty of triathlon coaches who will email you training plans.

But don't rely solely on web resources; make sure you get frequent visual stroke feedback to ensure that you're practicing proper technique. The best approach is to join a Masters program, but you can work with any good coach who will periodically watch you in person or provide video analysis to correct flaws and improve efficiency.

Your pace clock (or sports watch) also provides valuable feedback. Learn how your perceived effort relates to actual performance by doing regular, timed sets (at least once every two weeks) to track your progress. Some good triathlon training sets include:

- 4S (Sustained Steady Speed Set) = 8 x 100 on the fastest sendoff you can hold (FSYCH). The goal is to swim each 100 at the same speed with very little rest. *Example: Swim each 100 in 1:31, and leave on a 1:35 sendoff.*
- Sprint-to-Cruise = 1 x 500, with the first 100 *very* fast, then 400 at a steady cruise pace. The goal is to spend no more than about 50 yards recovering from the hard sprint and settling into a consistent race-pace speed for the remaining distance. This simulates the metabolic stress of the mass-start frenzy while teaching you to avoid slowing down later in the swim. Breathing correctly is the key to a quick shift from maximum effort into sustainable speed. Look at the clock on every 100 to be sure that your actual swim pace really *is* steady.

Don't forget recovery. Swimming can help you recover from the pounding your body takes in run and bike workouts, but you also need to remember to recover *from* your swim effort with stretching, massage, foam roller work, etc.

Reality Check

Allocate time throughout the season to train for race day conditions.

- Get comfortable in open water at the temperature you expect during the race. Run down the beach with your goggles on. Develop good sighting and drafting techniques, etc.
- Understand everything about your wetsuit, cap, and timing chip. Know how to avoid chafing, peel everything off, and wriggle into your bike gear while you're wet, cold, and panting.
- And make sure you are confident you can swim the entire distance required, or at least have a good bail-out plan.

Finishing the Pie

Yes, swimming *is* the smallest part of a triathlon, and you *should* spend more hours running and cycling. But *do not neglect the swim*. If you use your swim time wisely to learn good stroke technique, pacing, and race strategy *and* swim regularly enough to maintain swim fitness and feel for the water, you'll have a significant edge on your competition.

About The Author - Terry Heggy
Terry "Speed" Heggy has been swimming for more than 50 years. He won his age group in the 10K Open Water Championship in 2006, competed in the National Championship Olympic Distance Triathlon in 2014, and qualified again for USAT Nationals in 2015. He's the head coach of Team Sopris Masters in Glenwood Springs, Colo., and is a USMS-certified Level 3 Masters coach and an NASM Certified Personal Trainer.

Building an Efficient Freestyle

Triathlon swim training with equipment: fins, paddles, and snorkels

First, the fine print

Before you begin incorporating training equipment into your workout sets, it's important to understand that such tools should be used to correct technique, not swim faster in training sets. Improper use of paddles can accelerate shoulder fatigue and lead to rotator cuff injury. Therefore, it's important to use paddles strategically during workouts—with your goal of distance open water swims in mind, you should avoid using paddles to do speed work in the pool.

Efficient freestyle for a triathlon swim

Freestyle is a long axis stroke (as is backstroke): The body is held in alignment to facilitate rotation around the long axis of the spine. The head is kept in line with the spine, which is in line with the legs. Excess movements disrupt this alignment and make the stroke less efficient. Seemingly minor flaws, such as sinking feet, hips that sway rather than rotate, and improper head position, can present significant hindrances. One stroke flaw tends to lead to another: If head position is too high, it results in the legs sinking. There are several other flaws that affect alignment and the ability to rotate.

When it comes to long distance freestyle in a turbulent open water environment, keeping the body in alignment is crucial to an efficient stroke. There are additional considerations for a triathlon swim, since the race is not over at the conclusion of the swim. Efficient swimming is crucial in the overall success in triathlon, and it has less to do with split time than it does with an athlete's energy level after the first transition (T1).

Using equipment to "build the line" in freestyle

Deliberate use of equipment during pool workouts can train the body into holding an optimal hydrodynamic body shape while in the water, making for economical energy use.

Snorkel

Improper head position tends to be a primary flaw from which secondary flaws arise. The good news is that improper head position is usually an easy flaw to correct. Using a snorkel, keep your head steady and make sure that you set your gaze at the bottom of the pool, a few inches in front of you. Focus on staying in alignment and rotating symmetrically around your long axis—your spine. An added benefit of using a snorkel is being able to focus on breathing rhythm and resultant buoyancy changes.

Fins

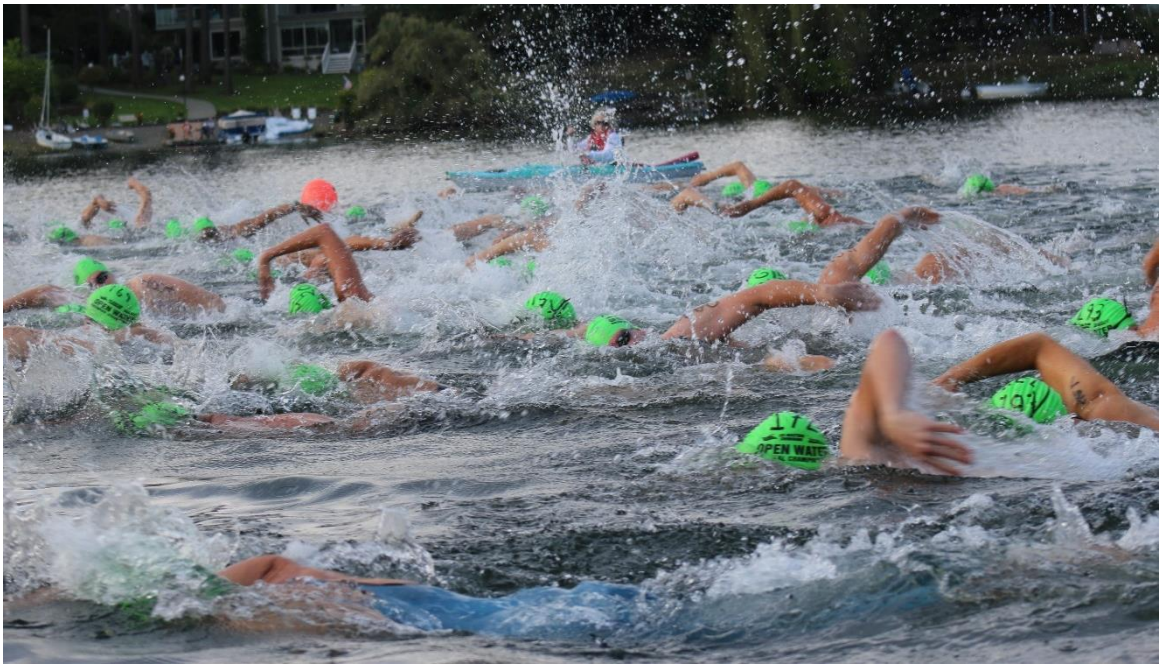
Although commonly used for generating speed, fins are better used for the purpose of balance while swimming freestyle. The effect can also simulate the sense of balance one gets from swimming in a wetsuit. The impact of kicking on propulsion in distance freestyle is minimal. With that in mind, use a narrow kick with a short vertical sweep while wearing fins and thinking about keeping feet at the surface. In this way, you are also forming a more hydrodynamic shape.

Paddles

First, find a set of paddles that are only slightly larger than your hands. It's not necessary to get paddles much larger than that. You'll be using paddles to improve your feel for the water and find resistance for the catch at the front of the stroke. Remember to keep your elbow elevated through all parts of the stroke and don't break at the wrist. In a triathlon swim where the water is constantly moving, it can be challenging to feel the catch with every stroke. Once you master this in the pool, chances are that you'll be able to consistently feel for the catch in open water. Pro tip: Don't use wrist straps to keep your paddles on, just the finger straps. If they are hard to keep on using only finger straps, it means you are breaking your wrists or dropping your elbows. This immediate feedback will help you feel your catch properly.

Using all three at once

Each training tool has its own role, but the three can also work together. It's a good way to work on hip rotation and lengthening strokes (referred to as DPS or distance per stroke), which make your freestyle more efficient. While training for the swim portion of a triathlon, always consider the swim within the context of the whole race, and how you'll want to feel in transition and on the bike course. Feeling a sense of control in the water as well as confidence will mean the beginning of a well-rounded triathlon race.



About The Author - Erica Slaughter
Erica Slaughter is the swim coach for the University of Michigan triathlon club team in Ann Arbor, Mich. She is a former NCAA All-American swimmer and current open water swimmer. Erica is completing a Masters degree in Exercise Physiology at Eastern Michigan University.

Maximizing Open Water Sighting Efficiency

Use these three simple tips to improve sighting in open water

Learn the basics of sighting. One of the easiest ways to improve open water performance is by improving the ability to sight on a course. However, sighting well and swimming straighter in open water are often mistaken with sighting forward more frequently and having the target in complete focus. Locking in on a target frequently may be calming and comforting because swimmers feel they're swimming a straighter and shorter path, but it can come at a big expense.

It's important for open water swimmers to remember that it's only necessary to recognize contrast when sighting; it's not necessary to focus on the target's absolute size and shape. For example, the object the swimmer is aiming for might be a group of dark green trees, a radio antenna, or an orange buoy off in the distance. All the swimmer needs to recognize is a dark green blob on the hill, the light metallic color of the radio antenna contrasting against a grassy hilltop, or the orange color of the buoy. Swimmers need not determine the actual shape of the buoy, because the time it takes to lock in and focus on a target is too long. Leaving the head up too long to focus in on the target creates drag, which in turn causes a loss of valuable forward momentum.

Although it's important to swim the shortest distance possible with little drift, swimmers shouldn't do so at the expense of sighting forward every four to six strokes. Swimmer who drift left or right after a few strokes shouldn't compensate by sighting more to course correct. Instead, find out what is causing this quick drift. Sometimes the cause is not stroke asymmetry—often it's head position. Tension in the neck can cause the head to angle slightly to the left or right. A swimmer's head is like a rudder—the spine, hips, and legs will follow wherever the head is pointed. Releasing tension in the neck allows the head, spine, and hips to come into alignment, which aids forward progress along a straighter path.

Each time the head is lifted to sight forward, the hips sink. This in turn increases drag profile. Speed drops and effort level increases. Picking the head up to sight forward is much like stepping on the brakes: The more frequently and longer the breaks are applied, the slower the swim and greater the effort required to keep moving forward.

Here are three simple steps to assist in sighting. Employing these tips can help maintain forward momentum and a more consistent, linear path in open water.

Sight Quickly

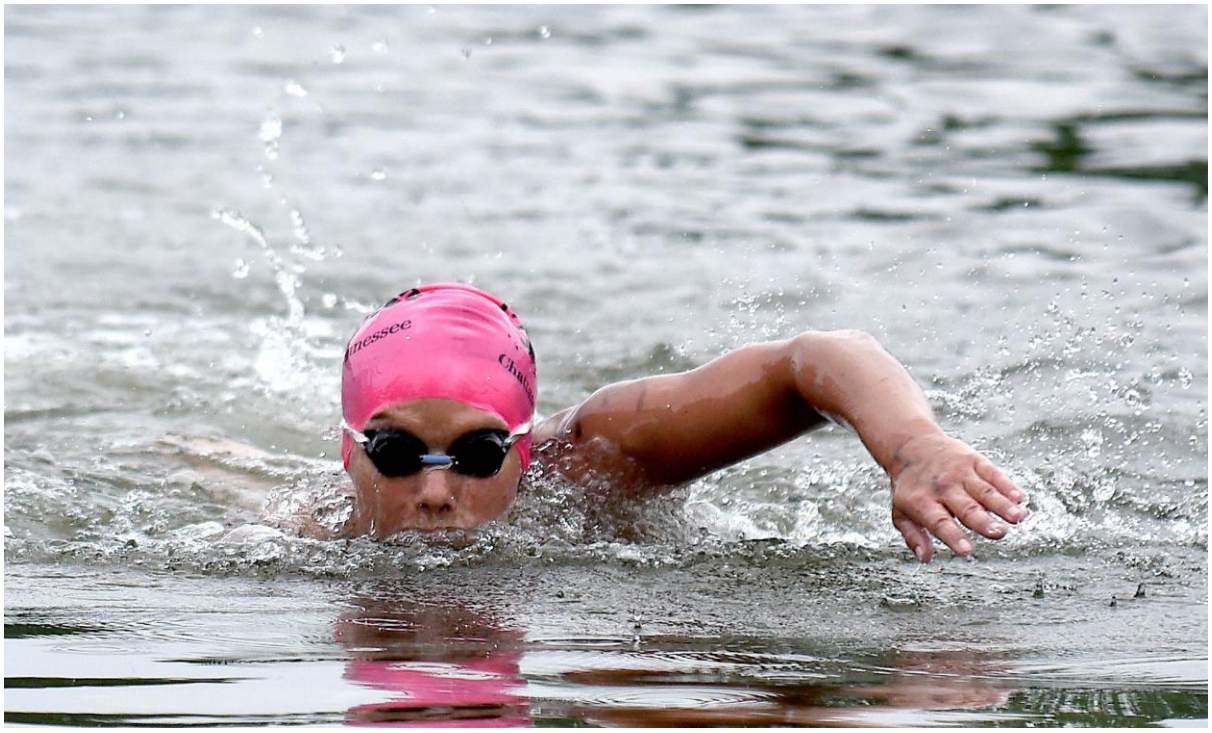
- Like a camera, take a snapshot with your eyes and quickly return your head to the water, goggles down. Allow your brain to process the contrasting images when your face is in the water. Sight forward with a single stroke as your lead arm finishes to forward extension (where your body is longest or tallest in the water). Do not pull or use your lead arm to lift your head above the surface and do not use multiple strokes to keep your head above the water to have a longer look. Lift only your goggles above the water to sight on your target, not your entire head—after all, you don't see with your chin! If you're swimming through chop or swells, wait for the swell to rise, then sight quickly when you're highest in the water.

Sight Forward Less Frequently

- Gradually increase the number of strokes before sighting forward. Practice taking 20 to 30 strokes or more before lifting your head to sight forward. The more your head is in the water, the faster you will go, and the less effort required. Only sight forward when absolutely necessary and not because it's comforting. As noted previously, if you drift after a few strokes, fix the errors in your head position and/or your stroke. Don't mask the problem and compensate by sighting more frequently.

Sight Bilaterally

- Breathing to both sides gives you a definite advantage on sighting, as you can see more around you and can also compensate for choppy water coming at one side from strong wind or swells. As you roll to breathe, briefly take notice of the shoreline or something such as a bridge, an orange buoy (or blob), or some other visible item in your peripheral vision. Learn to use other swimmers to do the sighting for you. As you take your breath and see swimmers to the right or left with their heads high looking forward in the same direction as you're swimming, there is no need for you to sight forward since they just did that for you! Just get that head back down after breathing and silently say, "thank you" to your fellow competitors.



About The Author - Stuart McDougal

Stuart McDougal is a USMS Level 3 Coach and a Total Immersion Certified Professional. He is head coach of SoCal Tri Masters in Los Angeles and cofounder of Mind Body and Swim. He got hooked on triathlons with his first open water swim in 2003. Although he still loves triathlon, he now really enjoys long distance swims in San Francisco Bay.

Triathletes: Save Your Legs

How to swim smarter to conserve energy for the bike and run

When it comes to triathlon, poor technique in swimming has the added consequence of negatively affecting the latter two portions of the race, either or both of which may be the actual specialty of the triathlete. The negative consequence is not only added time, but also poor technique that can cause excessive fatigue, particularly in the legs.

The amount of effort expended in kicking during the swim will impact the level of fatigue the athlete feels not only the legs but also the hip flexor muscles. Fatigue in the hip flexors can make for a slow start on the bike. Therefore, the goal should be to minimize the amount of kicking you engage in during the swim by adapting your technique.

It may seem counterintuitive to those with cycling and running backgrounds, but kicking in swimming over a long distance does not add much to overall forward propulsion, particularly if you're one of the majority of triathletes who experience limited ankle flexibility. A wide-sweep kick to compensate for this will create drag rather than reduce it while significantly contributing to hip flexor fatigue.

So why kick at all?

Kicking in long distance open water swimming serves two purposes: promoting balance and facilitating rotation. These two aims are key to maintaining a steady, consistent freestyle. A narrow small-sweep kick, with feet close together, helps to keep the feet at the surface and maintain balance. This can be achieved with as little as a two-beat kick per stroke cycle, especially while benefitting from the buoyancy of a wetsuit. On the other hand, kicking too wide, outside of a short vertical and horizontal plane, has the same effect as taking a wide step to catch your balance while walking, and again puts unnecessary strain on hip flexors.

The narrow kick also keeps the body in alignment and makes symmetrical rotation possible because torque is generated from the shoulder rotation through the hip. This body position allows for longer strokes, which translates into more distance per stroke and fewer strokes required to cover the swim's distance. These are the keys to forward propulsion in a long distance open water swim, and less fatigue in the legs.

Toward the end of the swim, it's a good idea to "wake up" the legs in anticipation for the run out of the water and to the first transition area. Again, this does not mean reverting to a wide-sweep kick, but simply increasing kick cadence, perhaps to a six-beat kick or more for the final 100 to 200 meters of the swim. Even when increasing the kick cadence, be sure that your foot is not fully breaking the surface and that you're maintaining body balance and rotation. As always, it's a good idea to practice all new swimming techniques in the pool before attempting in open water.

About The Author - Erica Slaughter
Erica Slaughter is the swim coach for the University of Michigan triathlon club team in Ann Arbor, Mich. She is a former NCAA All-American swimmer and current open water swimmer. Erica is completing a Masters degree in Exercise Physiology at Eastern Michigan University.

Core Stability Swim Drills for Triathlon and Open Water

Help your triathletes and open water swimmers improve core stability

In order to maximize pool workouts for triathlon, training should focus not only on building aerobic endurance, but also on technique appropriate for efficient swimming in a dynamic open water environment. Within the context of triathlon, there are additional concerns beyond performance of the swim itself—namely, conservation of energy to perform well in the bike and run portions of the race—that bring their own specific demands. To that end, the following drills focus on the principle of "whole-body swimming," that is, emphasis on core control to work in harmony with arm stroke and kick. Without utilizing the core, the arms and legs are doing double duty: propulsion and body stability.

Sidekick Progression

This three-part progression should give the swimmer a feel for how much the core is utilized in maintenance of body position in swimming. Completing 100 to 300 yards of each part, in sequence, is appropriate for training.

1. With one arm outstretched, kick on one side while maintaining a linear body position (head in line with the spine, the other hand resting on the opposite hip). When it's necessary to breathe, simply turn the face towards the ceiling but do not take it out of line with the spine.
2. With a single freestyle stroke, switch to the other side every eight to 10 seconds while making sure that full extension with the leading arm is maintained each time. This will create a 180-degree rotation of the hips. The goal is to match the timing of the forward arm catch with the initiation of hip rotation, which allows the swimmer to rotate cleanly around the body's longitudinal axis from head to toe.
3. Reduce the degree of rotation and decrease the time between switching, and resume a normal breathing rhythm. The goal is to be swimming a long, core-driven freestyle with symmetrical hip roll.

Streamline Kick Progression

Kick on the back in streamline position, focusing on short-sweep upward flutter kicks (toes should be breaking the surface). Use fins if ankle flexibility is limited. Continue to kick while raising straight arms upwards so that the hands (still locked) are pointed towards the ceiling or sky. Maintain this position and continue kicking. Focus on keeping hips near the surface by engaging abdominal muscles and quads. Any kick will be of little assistance in this drill, especially if the focus is on using a downward kick with the heels.

Water Polo Ball Dribble

This is a slightly more interesting and challenging variation of the head-up or lifeguard drill, sometimes called the Tarzan drill. The goal is to advance a water polo ball between arm strokes without touching it; rather the swimmer must use arm strokes to create small inward currents to push the ball forward. At the same time, the swimmer must keep his or her chin at the surface to see forward. This will require

the use of core control to keep the hips and feet at the surface. If the hips are sinking, forward progress is reduced. This drill has direct benefits for practicing stable body position while sighting in open water.

Pull With Buoy at Ankles and "Rudder Pull" with Kickboard

Placing a pull buoy between the ankles rather than above the knees forces the swimmer to increase hip *rotation* rather than a hip *sway*. This requires connection between the arm stroke and the core—specifically, the moment of catch (after a long extension) is matched with timing of hip roll to the other side. For further focus on this connection, try pulling with a kickboard (above the knees) rather than a pull buoy. Allow some portion of the board to be underwater—this makes the kickboard act as a rudder, which provides feedback on the symmetry and control of the rotation to the swimmer in real time.

No-Wall Turn Sets and Vertical Kick "Rest"

When sighting or rounding a turn buoy, it's important for swimmers to avoid "going vertical." Going vertical in the water for even a second stops momentum. What's more, because there are no walls to push from in open water, a vertical swimmer must fight back to a proper horizontal position and rebuild momentum without assistance, which requires a lot of energy.
While swimming long sets, try adding "no-wall turns." These turns require the swimmer to make a 180-degree turn under the flags without going vertical and without contacting the wall or bottom of the pool. For an added challenge or as a complement to a different set, try treading water (preferably with flutter kick) for 30 seconds away from the wall in between repeats instead of taking rest. After all, such is the reality of swimming in open water—better to come to grips with that in the pool ahead of time than in the thick of the pack on race day!

About The Author - Erica Slaughter
Erica Slaughter is the swim coach for the University of Michigan triathlon club team in Ann Arbor, Mich. She is a former NCAA All-American swimmer and current open water swimmer. Erica is completing a Masters degree in Exercise Physiology at Eastern Michigan University.

Bonus Swim Workout #2

- 400 choice warm up
- 6 x 75s w/:15 seconds rest (sighting drill - every 25, stick you head out the water to the front and try to locate a new object the pool deck, as if it were a buoy in a triathlon)
- 3 x 150s swim w/:20 rest (decrease time 1-3)
- 3 x 150s pull w/:20 rest (decrease time 1-3)
- 300 (kick/drill/swim by 25)
- 4 x 75s w/:30 rest (tombstone kicking drill – hold a kickboard perpendicular to the bottom of the pool)
- 100 cool down

Total: 2600 yards

Becoming A 'Real Swimmer'

An inspirational and passionate coach changed my life

In 2009, my boys were swimming with Fort Worth Area Swim Team and I was logging a lot of bleacher time, as any swim parent does. I watched the Masters group with fear and envy thinking that it was something I could never do. The coach, Ric Nesbit, was a seven-time NCAA swimming champion and in the Texas Swimming Hall of Fame, so that was a little intimidating as well. I was a slow-swimming triathlete and had never had a lesson in my life. I could only swim "some version of freestyle," as Ric would later call it.

As I made up my mind to complete a half-IRONMAN triathlon, I realized I needed help because really, I hated swimming. I remember my first conversation with Ric. I told him I wanted to swim the Olympic distance .9-mile swim in 25 minutes and the half-IRONMAN's 1.2 miles in under 35 minutes. All he said to me was, "just come to practice and we'll make it happen."

I really didn't know what I needed in a coach until I went to practice.

Ric was real old school and rough around the edges. He barked out sets and sometimes yelled. Then in the same moment, he was kind and complimentary with a fellow swimmer who had been working on some tiny detail and had finally accomplished it. This man was more than a little passionate—so much so that a part of me was afraid to come to practice, but at the same time afraid to miss practice.

Swimming with Coach Ric was like nothing I'd ever done before. Time and again, just as I'd begin to think we'd be finished with the workout, he would announce another set that I had no idea how to do. Every practice was filled with me learning a new stroke or fixing one I had tried to learn, or doing crazy drills that were completely new to me.

Some of the drills and sets puzzled me. Why would a swimmer not breathe for 25 yards? The idea seemed more than a little insane. Then there were the almost-daily emails from Coach Ric on a swimming-related topic or links to a new YouTube video he wanted us to watch.

More times than I care to recall, he would yell my name to get me to come to the end of the lane because everyone else had already finished the set. On more than one occasion, I threw up in the car on the way home because I'd kept my heart rate too high just trying to keep up with the other swimmers, and had dashed off after workout without properly cooling down. And, yes, there were the practices when I went home and cried. This was the hardest thing I had ever done.

For more than a year, Coach Ric was hard on me and the practices were tough. But then, suddenly, something clicked for me. Coach Ric moved me over to a faster lane. I was no longer in the dreaded slow lane. I was able to complete sets and I could do all four strokes and do two of them really well. I went to my Olympic distance triathlon and completed my .9-mile swim in 25 minutes just as I'd hoped. I couldn't believe it, and Coach Ric was so proud of me. Words cannot describe how excited he was, and for what seemed like weeks he told everyone about my accomplishment.

Having met my first goal, I kept coming to practice and working on the next goal: completing the 1.2-mile IRONMAN swim in less than 35 minutes. I was able to make the intervals most of the time and I even went to a few swim meets. I was shocked to not be in last place in any of the events I entered. I even got a few first places. The whole time Coach Ric cheered just as hard for me as he did for our national champion and ex-collegiate swimmers. I went to my half-IRONMAN and swam my 1.2 miles in under 38 minutes. I was amazed. I was in the top 10 percent of swimmers for the whole race, a fact I found to be simply unbelievable. Coach Ric told me I was ready for the full IRONMAN swim distance, 2.4 miles.

After working with Coach Ric, I can call myself a real swimmer and not "just a triathlete." And last October, after four years with Coach Ric, I decided to sign up for that full IRONMAN. The day I went to tell him that I was finally going to do that full IRONMAN I'd dreamed about was the day he passed away.

I think of Coach Ric often in my training and to say I miss him, his friendship, and his practices would be a huge understatement. Coach Ric was irreplaceable. It still doesn't feel right when he isn't on deck when I go to the pool. I cannot put into words how difficult it's been for me to embrace this sport in the same light without him here. I can't say I've ever had someone in my life teach and inspire me the way he did. He brought a passion to swimming that I've never seen before. And that is what makes a great coach.

About The Author - Jen Baron
Jen Baron, 36, is a swim mom, a nurse, and a member of the Fort Worth Area Swim Team Masters in Fort Worth, Texas

Bonus Video Playlist

Bonus Video Playlist:

1. Olympic Triathlete Jarrod Shoemaker
2. Triathlon Swim Training with IRONMAN Champion Ben Hoffman
3. Open Water Drafting
4. Open Water Starts
5. Get Hip With Your Hips
6. Paddle vs Propeller

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