TRIATHLON SWIMMING

Triathlon swimming is something you do with the lowest possible heart rate and the lowest possible lactate production, using the lowest amount of glycogen. Winning the swim is getting out of the water with a heart rate of 130, dropping your wetsuit to your waist, looking up, and smiling as you think about how well you're going to do on the bike. If you're not smiling, you're in trouble.

One of the most important lessons is not to waste energy. If you come stumbling out of the water and can't run to your bike, you've gone out too hard. I would rather see a swimmer come out of the water two or three minutes behind the leaders, but with a low heart rate and the mental ability to understand that now—on the bike—the race really begins, than to see them first out of the water with nothing left for the rest of the race. This is why it's important to do a lot of swimming (preferably with a masters group) before your triathlon swim. This is why you've been saving your energy—by swimming efficiently, effortlessly and most of all, intelligently.

The greatest lesson to learn here is this: if you can learn to swim efficiently, you swim fast. Efficient swimming is fast swimming and fast swimming is all about constantly working to eliminate drag.

What a Drag it is Going Slow

Drag is the killer. You can't muscle through drag and expect to be fresh for the bike and the run. Think about how streamlined you get on your bike to avoid unwanted air drag. Now think about how much more damaging water drag is. If your hips aren't at the top of the water, if your head is not in line with your body—eyes looking directly down—if your feet are not pointed and at the top of the water, you are allowing drag to waste your time and energy.

Ultimately, drag is caused when you're not balanced in the water. Here's a great drill that identifies imbalance and allows you to know when it's gone:

1) Kick on your back. The water should form a circle around your face leaving your eyes, mouth and nose exposed to the air. Your head will be in line with your body. Knees do not break the surface of the water and your feet boil the water as you kick from your hips. Arms are at your sides. (Find a marker somewhere so you don't smack your head into the wall. It's not pleasant.). When you can cruise along effortlessly, you're 50 percent of the way to reduced-drag swimming.

2) Now get balanced on your side. While you're on your back kicking gently, rotate your body 45-degrees, but keep looking at straight up. Your hips and feet should be able to stay at the top of the water. Now rotate to your original position on your back. Get balanced and then rotate to the other side. Check for hip and feet position. If you can do this, you're 75 percent of the way to reduced drag swimming.

3) Now rotate to one side by about 45-degrees and follow by rolling your head into the water so you are looking at the bottom of the pool. Relax, and bring the arm that's under the water in front of you so it becomes anchored at a 45-degree angle compared with the water surface. Sneak your arm forward causing as little resistance as possible to reach this anchor point. Keep kicking gently, and check your hip and feet position. If your hips have dropped you've found an unbalanced position. Roll onto your back, get balanced, and do it again more slowly.

When you reach a balanced position on one side, do this on the other side. Many people are more balanced on one side than the other, so this means you want to spend time enjoying the side that is naturally more balanced and then transfer that feeling to the other side that isn't as balanced. It just takes thought and concentration.

Getting Into the Groove

Although in most triathlons the swim is relatively short, it nonetheless can be the cause of considerable apprehension. Much of this uneasiness can be traced to the often-chaotic start, where athletes frequently struggle with feelings of disorientation and claustrophobia as pre-race angst gives way to an early adrenalin surge and hundreds of swimmers jockey for position.

A good start means a better opportunity to catch a faster draft and start the ride in a comfortable position. Generally, there are three different types of starts: deep water (floating) beach start (on the beach, or ankle-to-knee deep) and dive starts.

For a **deep-water floating start**, your heels should to be close to the surface of the water and behind you immediately prior to race start. Practice floating and sculling in place followed by a whip kick or side scissor kick to quick-start your acceleration once the cannon sounds.

For **beach starts**, run until the water is knee high, then dolphin dive. As you run, do not drag your feet through the water, rather, lift them completely above the water for as long as possible, and even try and squeeze in one extra step if you can, like an Olympic hurdler clearing that last hurdle, before the final dive in.

Be sure to inspect the terrain before the race to check for any sinkholes or rocks. Then dive in hands first, not belly first. For knee- or waist-deep starts, jump and dive into the water with your arms in a tight, streamlined arrowhead position over your head. Rely on a strong kick to get you going.

Last, you can practice **dive starts** in the pool. Keep your hands together in a tight, streamlined entry and your head down so your goggles don't come off. Try not to sight at all for the first 50 to 75 meters, and you will break out of the crowd that much more quickly.

Finding Your Pace

The pacing of the start is critical as well. You need to assess your strengths in relation to the race distance. When competing at an Olympic- or sprint-distance race, the swim pace tends to be higher, and the outcome of the swim is more critical to your overall success than if you are racing a long-course event.

If you have a lot of natural top-end speed in the pool but are relatively less efficient at distance swimming, start your swim at 85 to 90 percent of your max 50-meter speed for the first 50, then drop to 80 to 85 percent for the next 50. This should still be relatively faster than much of the field but will leave you with enough in reserve to catch onto the feet of those efficient long-distance pace swimmers.

Alternately, if you are an efficient endurance swimmer but lack a lot of sprint speed, practice starts at closer to 90 to 95 percent of maximum speed in training, with the second 50 meters at 85 to 90 percent. Well-trained endurance athletes tend to be efficient at flushing lactic acid, so a closer-to-max effort shouldn't hurt you too much but will help put you in a position that allows you to maximize your big aerobic engine.

Take note that, at 200 meters, you may feel quite fatigued, but with practice and experience you will learn if you are tough through this section then you can work into a good rhythm for the balance of the race.

Pacing for Ironman-distance racing is slightly different. Because of the sheer volume of athletes that typically begin together in a mass start, there are always a lot of drafting opportunities. While a crisp start is still important, it should be backed off to no more than 70 to 75 percent of max effort.

When you're going long, race-start position is much more critical. For competitive reasons it is better to slightly over-seed yourself. This allows for stronger swimmers to come through and more opportunity to hop on a passing train. Be forewarned that this may also increase chances for a rough swim, so if you goal is to finish and be comfortable, start at the outside of the field and further back.

Pack swimming is a relatively infrequent experience for most athletes, and it's difficult to replicate in a pool. Sure, you can swim laps right on someone's feet or hip, but there's little that compares to being smack in the middle of a few hundred swimmers out in open water.

So, without much opportunity to practice this skill, here are some tips for staying out of trouble.

Don't Get Pushed Around at the Start

Where you stage for the swim has a lot to do with how crowded you'll be in the water. Everyone wants to start in the middle of the shoreline to have the shortest distance to first buoy, but remember that all those athletes on the sides are going to be converging in toward the middle as soon as the gun goes off.

If you're not fast enough to get out ahead of them, you'll end up in the most congested swimming environment you can imagine. For medium-speed swimmers (the ones who are in the first half of the pack coming out of the water), I recommend lining up more toward the ends of the shoreline.

You'll be able to catch a draft from the pack, but you'll have fewer swimmers to one side of you, meaning you'll have room to move around slow people. Yes, you'll have a little bit farther to swim, but swimming in better conditions often leads to faster swim times anyway.

Protect Your Face

Getting kicked in the face is one of the biggest risks and fears for triathletes. To reduce this risk, you want to swim catch-up style when you're in the pack. Catch-up is normally a stroke drill where you leave one hand extended in front of you while the other pulls through a complete stroke.

When that hand gets back in front of you, you begin your pull with the other arm. In a tight pack environment, swimming in such a manner means that one hand is always in front of your head to intercept a swimmer's wayward foot. Once you're in clearer water you can go back to a conventional stroke.

Accelerating in the water to pass another athlete takes a lot of energy, so make sure you're doing it for the right reason. In the middle of the pack, passing one person isn't going to take you out of the draft, but if you're in a long line of swimmers you run the risk of pulling out to the side, slowing down because of the drag and then losing your spot as you fight to get back in line.

The most important time to work hard is right at the beginning of the swim. You'll burn a lot of energy, but getting into a good position in the pack—near the outside and with a group that swims as fast or a little faster than you can—will save you energy in the long run because you'll be able to do more swimming and less battling.

Of course, to get yourself into the sweet spot within your pack of swimmers, you need the ability to surge in the water, sometimes several times, and then recover while maintaining a strong pace.

1. Close your eyes: Swim 8 to 10 strokes in the pool with your eyes closed, then sight above water. This will help you learn to swim straight without using the bottom of the pool as a guide.

2. Get off to a fast start: Practice a few sets of fast starts, followed by settling down to a more relaxed pace. This simulates the quick starts typically found in open water events as participants angle for position before settling in to their paces.

3. Dolphin it: Practice dolphin dives (pushing forward off the bottom in a series of short dives to propel yourself through shallow water) in a shallow pool to learn to get in and out of open water venues more quickly than running through the water. Make sure never to dive in from the side of the pool, but rather practice short dolphin dips from a standing position once in the shallow water.

4. See what you can see: Practice regular sight-breathing in the pool, lifting your head up to look forward in rhythm with your breathing. Start by looking up every eight strokes, eyeing a target past the end of the lane (a window, deck chair or small building will do) and gradually work up to more strokes between sight-checks. Sight-breathing in the pool also will help train the muscles you need to lift your head.

5. Be efficient: Make it a goal to lower your stroke count per lap in order to swim more efficiently. Try a clinic, workshop or lessons for some new perspective.

6. Put the rubber to the road: Try out a brand-new wetsuit in the pool before using it in open water. Even with a wetsuit you already own, wear it for a few pool practices before a race. The pool provides a safe and comfortable environment to adjust for the way the wetsuit changes your feel for the water and body position. However, check with the manufacturer first to make sure the chemicals in the pool won't deteriorate the wetsuit material.