

The Complete Guide to

TRIATHLON SWIMMING



KEVIN KOSKELLA

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About the Author



Coaching Masters Swim Teams in San Francisco and San Diego since 2001 and being an accomplished swimmer, earning the highly prized All-American status at the college level, Kevin Koskella is a leader in aiding the beginner and experienced triathlete towards excellence in the swimming portion of the race.

Kevin's coaching philosophy differs from the traditional approach to competitive swimming: He believes that the best swimming techniques are different than the traditionally taught styles:

Traditional: The traditional approach and philosophy in swimming has been "no pain, no gain" and "the more, the better," usually with slower swim timing and results as well as burnout and injuries.

Koskella Triathlete: This progressive approach incorporates using several techniques and drills in workouts, as well utilizing clinics and private lessons, allowing swimmers to get more out of their strokes, swim faster, and swim more fluidly, while keeping their heart rates down. In other words, getting more out of less!

Kevin coaches sessions for swimming masters and triathletes in San Diego, and conducts a variety of clinics, private lessons, and video-analysis of personal swim style with critique and correction. He has helped professional Ironman triathletes reach their goal, but his passion is to give the new triathlete the confidence to be successful in the swim portion of the race.

Kevin is an active contributor to *Inside Triathlon Magazine*, *Men's Health Magazine*, and popular websites, *Active.com* and *Beginner Triathlete.com*, focusing on issues, tips on swimming for beginners, and helping his triathlete students to resolve common swimming problems.

Kevin has competed in several triathlons and open water swims and most recently competed in the World Masters Swimming Championships at Stanford University.



Introduction



Triathlon is a sport that has caught on fire over the last 5 years. Many of us took interest in the sport after watching NBC's coverage in October of the Ironman in Kona, Hawaii. Some were inspired by the absolutely incredible shape the top finishers have to be in to compete at that level. Others were drawn in by the emotional stories of some finishers that each have their own amazing triumphs. Still others have taken up the sport as a personal challenge, to push themselves to the limit and see just exactly what they are made of.

Whatever your reason for doing a triathlon, I congratulate you on your endeavor!

To complete a race will give a great feeling of accomplishment. But if you are in that beginner level and you are looking for the best way to get started, or you are an intermediate level triathlete looking to improve, there are limited resources out there to help you. Some of you have access to tri clubs in your area, which is a great place to go to find training partners, and some good advice on where to start or how to improve. But often times these clubs fall short of offering any kind of true swim training plan (that's if you are lucky enough to live close to a club).

Masters swim teams are one place to go to get good swim workouts. But often times these are not geared towards triathletes, as they concentrate on swimming fast and doing lots of yardage at every workout, instead of offering appropriate technique help. Don't get me wrong- I swim on a masters team and thoroughly enjoy it- but as a new swimmer or someone looking for improvement specific to competing in a triathlon- it may not be the best option. Since technique is key to swimming in the open water (and especially for the multi-sport events), it is important to start with learning proper technique before diving in to a masters workout. I do list some coaches on my website that train triathletes <http://www.triswimcoach.com/findacoach.asp>.



The lack of attention given towards beginning and intermediate athletes in the sport is part of the reason I created triswimcoach.com and wrote this book.

The other reason is that the sport's popularity has given rise to the biker or runner that needs lots of help in the water! Biking and running are typically the easiest parts of this sport for many people, mainly due to lack of technique involved. Swimming, although the shortest part of the race, is often frustrating and even miserable for some people! If this describes you, don't give up just yet. The information presented here will allow you to:

- Begin a training program in the pool to prepare for sprint or Olympic Distance tri
- Attend masters workouts with an idea of what to look for, how to get the most out of the workouts, and learning the common swimming myths found in many of these sessions
- Learn common drills and exercises in and out of the water that will go a long way towards helping you get more out of your freestyle stroke
- Build your confidence so that swimming is not the dreaded portion of your race that it might have been in the past.

At the end of this book, I have included 4 12-week plans (swimming only) for: a Sprint Distance triathlon, an Olympic Distance triathlon, a Half Ironman and a Full Ironman Triathlon. I strongly suggest reading the entire book before jumping into these workouts. This will give you a better idea of why you are doing certain things and the meaning behind some of the drills and sets.

I hope this helps with your training and enables you to finish faster and stronger than you thought possible. Enjoy!



Section 1 :Technique, Your Foundation

We as humans were not born swimmers. We are land animals first. Breathing while in the water is completely unnatural. Most people start out with short breathing, sinking legs, and a shortened pull.

Fear of the water is what causes most aspiring swimmers and triathletes to hold back or not get enjoyment out of swimming. Some fears can be caused by a bad childhood experience. These must be dealt with individually, or through the help of a psychologist or psychiatrist. Other fears are skill-based and can be more easily dealt with through swim lessons with an experienced instructor.

I have taught lessons for people who are looking to overcome their fear of the water. Most of the time it was just a matter of getting used to the idea of putting the face in the water. It can be a scary experience, as the mind can interpret the bottom of the pool as a place you are going to fall to and hurt yourself. The best way to get over this, from what I have seen, is to simply practice first putting your face in the water and keeping your eyes open, then actually going to the bottom of the pool and staying there for 20 seconds or so.

The first step in swimming is to learn to relax in the water. This will allow you to improve at a much faster rate than if you remain tense and feel the need to go into “survival mode” when you start swimming.

Again, I highly recommend taking a lesson from a qualified instructor. You can use the find a coach list on my website or even just enroll at your local YMCA if you are a true beginner.



Chapter 1 : Freestyle Technique Basics

Although I recommend learning and training not just freestyle, but on the other 3 strokes as well (butterfly, backstroke, breaststroke), this book will focus on the fastest of the four strokes (free).

Before conquering the actual stroke, I recommend doing some treading water. It may seem silly but in deep water triathlon starts it comes in useful, also it will help you with the feel for the water. Just move your hands from side to side slanted inward as they come toward each other, and outward as they move away. For your legs, you can either use the scissor kick, flutter kick (freestyle, light forward and back motion with the legs), or no kick at all.

The most important time to work on technique is the off season and the beginning of the season. Practice drills and technique until you feel super-comfortable in the water. Then *slowly* increase distance and intensity in your workouts. If you are reading this and in mid-season, do not just wait a few months to start technique work. You can start implementing many of these concepts immediately and just spend more time on them after your last race.

Let's go over some basics when it comes to freestyle technique. This is just a quick look at technique, there will be more detailed discussions later in the book. Refer to the accompanying videos to see what it should look like in the pool!

Head Position. This is where it all starts. Look down at the bottom of the pool. Keep a small part of the back of your head at the surface. Don't be tempted to look up in front of you. If you do this, your hips will sink, and you will have to kick really hard to stay on top of the water- and waste a lot of energy.

Breathing. Here's what many beginning triathletes and swimmers consider the hardest part of swimming. It's natural to want to look up when you breathe, take a long deep breath, and then try to continue your stroke. Don't do it! This causes you to start your pull too early, and it causes you to sink. Ideally, breathe with no head lift, 1 goggle out of the water, and your mouth just above the



water. Make sure you exhale completely, then roll to the air (think of breathing with your belly button or your core), and “sneak” a breath while you extend your arm out in front. **This will be difficult at first!** Focus on and practice breathing mainly in warm up and warm down, as well as longer, slower swims. By practicing the drills in this book and the videos, it will get easier. I cover more on breathing and breathing patterns in the chapter on bilateral breathing.

Arm Cycle (pull and recovery). The arm cycle in freestyle should go like this:

1. Entry- extend hand forward and make a straight arm.
2. Bend Elbow- Often called the “catch”, prepares you for propulsion
3. Pull- Here is where your power kicks in and propels you forward. Many people think the pull is everything when it comes to freestyle technique. It’s not. Don’t get too hung up on it. Let’s focus on these 2 basic points about the pull:
 - The pull should start with an immediate bend of the elbow.
 - You should be **pushing the water behind you**, or towards your feet, and not towards the bottom of the pool. Keep in mind that you always want to push the water *back* to move *forward*.
4. Release- rotate the arm outward.
5. Recovery- Keep your arm relaxed and bend your elbow on recovery.

Kick. Keep a narrow kick. Remember that as a triathlete, there you do not need to have a strong kick! The only swimmers who need a strong kick for propulsion are sprint freestylers. As an open water swimmer or triathlete, the kick is there mostly to help you rotate. Many triathletes have a “runner’s kick”: their ankles are inflexible and their kick gets them nowhere. Some even go backwards if they are strictly kicking without arm strokes! If this is you, read on for remedies and how to improve your kick.



DRILL: Vertical Kicking

This is often the first drill I will have beginning swimmers or swimmers that have a weak kick do:

Make sure you are in deep enough water. Kick in place in a vertical position with your hands above the surface of the water. Keep yourself straight (no leaning or bending), and do 15-20 seconds at a time, keeping your head above water. You should notice the fatigue in your upper thighs. Your toes should be pointed and your knees should not be bending a lot. Work your way up to 30 seconds, then 45 seconds, then 1 minute. You may use fins at first but take them off after a few practices of this drill.

See the accompanying video by logging in to www.triswimcoach.com!

Another key to kicking is flexible ankles. Often times, runners have very inflexible ankles. Stretching your ankles by sitting on them will fix a lot of the problem. A good pair of Zoomers can help this problem tremendously. More on this later!



Chapter 2 : Rotation

Many triathletes view swimming as the necessary evil when it comes to training. Triathletes that are not strong swimmers leave the water feeling exhausted. This causes a less-than-peak performance in the bike and run, even for well-conditioned cyclists and runners. Of course, poor technique can have a lot to do with this.

But there's more! Humans are not natural in the aquatic environment. We are land animals, and water is much more dense than air, causing strong resistance in the water. So it's not your fault if swimming is a struggle!

When we learned to swim freestyle as children, most of us swam flat in the water, with little or no hip rotation as our arms and legs were doing the majority of the work.

To swim faster, all you had to do was **paddle harder, and kick harder**. This method is extremely limited and ineffective because of the laws of physics. Swimmers waste energy trying to churn through the water instead of moving the body forward. Because of this, many triathletes and open water swimmers have found it necessary to change their stroke and swim more on their sides in order to conserve energy, swim faster, and get through potential rough water conditions with greater ease.

Rotating from side-to-side as you swim is a method that has been around for over 30 years. When Mark Spitz was gaining national recognition in the early 70's, many critics said his only problem was that he did this "side-to-side" as he swam! **Little did they know this was a revolutionary stroke**. Science has now backed up this style of swimming, and great swim coaches like Howard Furby, Ernie Maglisco, and Bill Boomer have popularized swimming on your side with many successful swimmers over the years.

Swimmers, coaches, and triathletes often make the mistake of trying to do more yardage, or work harder during practice in order to achieve the results they are looking for. **The problem**



is not usually lack of hard work or not doing enough. Faster swimming has more to do with body position than yardage.

Good swimming is about using the core of your body- hips, stomach, lower back, and chest. Top swimmers rotate the core of the body from one side to the other, while keeping the head fixed, looking downward towards the bottom of the pool. When you rotate in this way, you move through the water more like a fish or a boat, reaching further forward on each stroke, and maximizing your efficiency.

*I have mentioned Mark Spitz and there are many other top level swimmers we can all learn from, including Ian Thorpe and Alexander Popov. However, strokes must be individualized. Take Janet Evans, the greatest female distance swimmer of all time, for example. She uses a "windmill" recovery. While it clearly worked well for her, this type of straight arm recovery usually leads to poor body position. Another thing to keep in mind with Janet Evans' stroke is that even though her elbows are not bent on the recovery, **she still bends her elbow immediately on the pull!***

DRILL: Side Kicking

Here is a drill to begin practicing (you may use Zoomers or fins if you have them): Kick on your side with your left hand extended out and your right hand by your side. Keep your head down and locked to your shoulder. Keep your kicks small and don't bend your knees much. On the second length, switch sides and extend your right hand, with your left hand by your side. When looking down, you should be at about a 90-degree angle in the water. When you need air, roll all the way up into more of a 45-degree angle, take a few breaths, and repeat. Most importantly, keep your body aligned when practicing this drill. Continue to practice this kicking drill and add in arm strokes as your side balance improves.



Kicking on Your Side



DRILL: Shark Fin

Another drill that will help you with balance in the water and prepare you for hip-rotation freestyle. While kicking on your side, extend one arm. Slowly point elbow of trailing arm up towards sky, hand almost touching your side, making a "shark fin." Slide hand back down, roll to your back, take 2-3 breaths, repeat.

DRILL: Slice & Rotate

Start out like you are doing the Shark Fin Drill. After making the shark fin, instead of sliding the hand back to your side, slice it forward (a little in front of your goggle line) and rotate your hips, as you extend your arm and end up in side kicking position on your other side. Keep your head from moving as you rotate, but as soon as your hips are rotated, roll all the way onto your back to grab a few breaths before the next round.



See the accompanying video by logging in to www.triswimcoach.com!

Swimming freestyle on your side may seem like a foreign concept at first. But with consistent practice, you will be able to swim more efficiently, resulting in faster swim times and greater energy conservation.



A great way to kick off your training is to take a few private lessons from a qualified coach. A list of coaches within the U.S. can be found at the [Tri Swim Coach](http://www.triswimcoach.com) website.



Chapter 3 : Breathing



The most frequently asked question from beginner triathletes and swimmers I get is, “How do I breathe?” In freestyle, the first step is to get your body position right. Then, for many, you throw in breathing and everything goes haywire! This has to do with lack of balance, using your head instead of your core to breath, and a few other factors.

Let’s take a look at 5 challenges in learning how to breathe in freestyle, along with the remedies on how to get over these:

Not Getting Enough Air.

There are a couple of reasons this typically happens in freestyle. First, make sure you breathe out all of your air before you rotate to take a breath. When learning, some people try to exhale and inhale while they are rolling to the side for air. There simply is not enough time for this! Your exhalations should only be in the water in the form of bubbles. At first the timing may seem difficult, but eventually you will get used to it. Second, you may be sinking as you breathe. Make sure you are rolling to the side to breathe, and not rotating your head and looking straight up. Practicing the side kicking and shark fin drills, as discussed in this book and in the introductory 4-session online clinic you get by signing up for the [Tri Swim Coach newsletter](#) will also help you with this challenge.

Extended Arm Sinks While Taking a Breath.

This is mainly a balance issue. While you breathe to one side, your other arm should be extending. For many swimmers, this extended arm pushes down into the water (elbow drops) and they are sinking while trying to inhale. The side kicking and shark fin drills will also help to improve this. Another drill also discussed in the materials that will help with this challenge is the fist drill, which forces you to not use your hands, therefore improves your balance in the water.



Speed is Sacrificed because of a “Pause” While Breathing.

A typical scenario is that you feel like you’re cruising along just fine and then you take a breath and it feels like you’ve just lost all your momentum. To remedy this, when you breathe, concentrate first on breathing to the side (as in #1), then on having your mouth parallel to the water, instead of over the water. The latter will take a while to master, but once you do, it will take care of the pause, and improve your speed overall.

Difficulty Breathing while Navigating in a Race.

You need to look up to see where you are going, and at the same time grab a breath. How can you do both? Start with bilateral breathing (breathing on both sides every 3 strokes). This will help you to see about where you are without lifting your head up as much. When you need to lift your head up to sight, try not to look straight ahead- this will make your hips sink and throw you off balance. Instead, take a quick peek at your target, roll to the side to breath, and bring your head right back down into position.

Sucking In Water While Taking a Breath.

In practice, this will sometimes occur because of the first two above mentioned challenges. In a race, the waves may cause the inhalation of water instead of air (bilateral breathing will help here as well). The drills to practice to improve balance and avoid this unpleasant occurrence are the side kicking and shark fin drills, as well as the one-arm drill. To perform the one-arm drill, swim a full stroke with one arm while your other arm rests at your side. Breathe on the opposite side of the stroking arm. This is a difficult drill and takes some practice, but it will pay off!



Bilateral Breathing- Should you do it?

One of the most common wonders of the swimming world is should you use alternate-side, or bilateral breathing?

Throughout my swimming life, I had always breathed to my right side.

Why?

Because breathing on my left side felt awkward and uncomfortable! This is the reason why most swimmers will breathe only on one side. Then I had an experience that made me change my ways. I was getting a massage and my therapist noted that my left lat muscles (back) were much more developed than my right. Putting two and two together, I realized that years of right-side only breathing had caused me to use the muscles on my left side far more than my right, as I was balancing with my left arm while sucking air into my lungs!

So the answer to the question is yes, you should use bilateral breathing. **Bilateral breathing will balance out your stroke and create symmetry in your back musculature.** The problem with breathing to only one side is that it can make your stroke lopsided. In a one-hour workout, you may roll to your breathing side 1,000 times. A lopsided stroke can quickly become permanent after practicing this for a while!

The benefits to breathing nearly as often to one side as the other are that using your “weak” side more frequently will help your stroke overall, and you’ll lose your “blind” side. If you are an open water swimmer, the latter benefit will help you check for landmarks, avoid chop, or keep another rough swimmer from splashing water in your face (or punching you in the nose!) as you breathe.

The way to obtain these benefits is to practice bilateral breathing as much as possible. Often in my evening masters group I will have swimmers breathe every 3 or 5 strokes as part of a drill or



warmdown. But by no means should this practice be limited to drill sets or long warmdowns! It will feel awkward at first, but the awkwardness is easier to deal with than you may think. Regular practice of rolling to both sides to breathe will remedy this before you know it.

Some tips on how to practice bilateral breathing while keeping it interesting:

1. Breathe to your right side on one length and to your left on the next. That way you get the oxygen you need but still develop a symmetrical stroke.
2. Breathe to your weaker side on warm-ups, warmdowns, and slow swimming sets.
3. Experiment with 3 left, 3 right or 4 left, 4 right until you find a comfortable pattern

Note: As a beginner, feel free to breathe every 2 at first. Getting air is most important at this stage. Keep this in mind when you race as well. Gradually work in bilateral breathing and don't feel rushed, like you *have* to do it. Again, it's about practice!

Keep the goal in mind each week of breathing about the same amount to one side as the other over the course of any week of swimming. Most of all, enjoy your swim!



Chapter 4 : Stroke Counting

You may have had coaches that make you count strokes throughout the workout, either by mixing it into drill sets, the main set, or at the end of workout. Some coaches recommend making a habit of *always* keeping track of your stroke count. As a coach of distance swimmers and triathletes, I believe **stroke counting is a necessary part of most swimming workouts.**

If you stick with it and do it on a consistent basis, stroke counting in swimming is an excellent way to increase your DPS (Distance Per Stroke).

The world's best swimmers are faster than you because they travel further with each stroke, not because they are moving their arms faster. Keeping track of the number of strokes you take per length will allow you to begin to lengthen out your stroke, as well as add more speed and distance while keeping your heart rate down and allowing you to save your energy for later in the swim or race.

The goal should be to bring down your *average stroke count per length*.

Great swimmers like Alexander Popov or Ian Thorpe may be able to scoot through the water at record speed while taking 30 strokes per length (50 meters), but this low stroke count does not have to be your golden number for improving your stroke.

First, determine what your range is. Try to swim most of the time at the low end of your range or below your lowest stroke count. Don't worry about speed at first- you can influence this later, perhaps as you begin to learn what your "ideal" stroke count is.



Here is an example of a set that can help lengthen your stroke, as well as build endurance:

50+100+150+200+200+150+100+50

- Take 10-30 seconds between swims
- Count your strokes each length on the way up.
- Try to maintain or lower your stroke count on the way down while keeping the same pace.

Another fun set that you can play with is **free golf**. For example:

- 6x50's Free on 1:05.
- For each 50, count your strokes AND check your time.
- Add these 2 numbers together to get your golf score.
- Try to lower this score through the set.

The tricky part is, trying to add speed without adding strokes, or subtracting strokes without sacrificing speed.

Consistently incorporating stroke counting into your workouts will, over time, help you to swim longer (or get better DPS) in the water, and use less energy to go the same speed or even faster. And for those that don't consider swimming to be their strength in a triathlon, this saved energy is sure to translate into a better bike and run!



Section 2 : Equipment



Chapter 5 : Kicking: With or Without a Board?



In freestyle, it is important to have some kind of kick to help you rotate from side to side as you swim, and to give you a small bit of propulsion. However, 90-95% of your propulsion in swimming will come from your upper body and how much you can rotate to slide through the water.

So why do we see so many swimmers out there working on strengthening their legs by kicking with kickboards that keep them afloat? Perhaps it's because:

- They like to chat with their friends while apparently doing a workout
- They often sink while swimming, and holding a kickboard makes them feel more comfortable in the water
- They want to strengthen their quad muscles in the hopes of improving their swimming speed

Each of these reasons is understandable, but highly unnecessary! Here's why:

- Chatting while kicking with a board is fun, social, and does serve that purpose. In fact, I occasionally allow my Masters swimmers to have a "social kick" where the sole purpose is to get to know their fellow lane mates and teammates. However, this is not a workout and won't do anything for your swimming abilities.
- If you are sinking and enjoy being propped up on top of the water with a floatation device, that's a sign that you need *more* practice kicking on your side, without a board. The **kickboard will only act as a crutch** in this case, halting you from improvement.



- Strength in the legs plays only a tiny role in swimming faster. Therefore, grinding out kicking sets with a board in the hopes of building strong thigh muscles is not an efficient way of improving your swim stroke.

The other very important reason to use a kickboard as seldom as possible is that in freestyle, we are never supposed to be on our front anyway! Freestyle should be swum rotating from side to side, not flat on your stomach. Therefore, it makes much more sense to perform your kicking sets on your side with one hand extended- just the way your body should be positioned in freestyle.

Do most of your kicking sets without a kickboard. While your teammates or workout buddies are busy chatting and trying to build up their quadriceps muscles, you can be working on your balance in the water and your kicking in the same angle in which you swim.

This is one of those “swimming myths” that I mentioned in the Introduction of this book. Many swimmers and coaches grew up using kickboards. It has become ingrained in many swimming circles that kicking sets with a board are a necessary part of workout. But no thought is put into *why* boards are used!

Although many of your friends (and teammates if you swim masters) may be using kickboards during a workout, it is important to not cave in to peer pressure (or pressure from a “traditional” coach). Sticking to your guns will produce great dividends in accomplishing your triathlon goals.



Chapter 6 : Using Fins



One of the most common questions I hear as a coach is, "Should I use fins?"

The answer depends largely on your goals, your skill level and the type of fins.

Often, especially in masters swimming, swimmers wear fins merely to keep up with other swimmers in their lane, or to advance to the fast lane and make tighter intervals. If you are strictly swimming for fitness, and do not care about your stroke technique, swim time, or energy conservation in a race, then these are perfectly acceptable reasons to use fins. Fins, especially the shorter fins like [Zoomers](#), can help you go faster in a workout and burn more calories.

Most of us in the triathlon world are concerned with more than just fat burning.

There are certain situations when it's appropriate to use fins during a workout. Fins can help build strength in your legs. They can also allow you to consume more oxygen during your swim, which enables you to support the use of more muscle mass at greater intensity, and for a longer time. However, using fins on a regular basis for the desired effects of swimming faster and keeping from sinking in the water is ill advised.

If you have little or no kick, or your kick makes you go backwards while kicking on your back (not uncommon among runner-types), **using fins for a period of time will help your stroke and speed.** The kind that work best are the shorter fins ([Zoomers](#) are the most popular and the new Z2's are the best fins on the market. For 20% off click [here](#) and use 'aggies' as your discount code!). The reason is that using the fins allows you to concentrate on improving



your upper body technique, as well as your overall endurance, without having to think about your kick at the same time.

Don't worry about getting "addicted" to fins. Stick with using them mostly on drills only (except for the Fist drill), and you will be fine.

Since 90% propulsion comes from upper body in swimming, as a beginner it's wise to concentrate your training on this aspect of the stroke. After stroke improvement and endurance are built, start weaning off fins, and do more and more of your swimming sets with bare feet. You may find that not only have you made faster improvements in your stroke and speed, but your kick improved slightly as well, due to improved ankle flexibility.



A great exercise to help improve ankle flexibility is merely sitting on your ankles. This gives you a stretch that, if done consistently over time, can give you more of a "swimmers ankle" while not taking anything away from your running.

Fins, especially the shorter, Zoomer-types, can be a very effective tool in swim training for open water and triathlon events. They can also be harmful and actually prevent you from improving your stroke and your race times, if used improperly. If you are wondering about using fins, make sure you first understand how they will help you in accomplishing your goals.



Chapter 7 : Pull Buoys, Paddles, and Other Toys

Swimming is a sport where traditions die hard. Some of the equipment that has been around for ages should probably be hung out to dry at this point. However, there is also equipment that is essential, and equipment that is beneficial, making workouts more interesting and productive.

THE ESSENTIALS

Swimsuit

Yes, you need this to swim in most public places! I suggest getting a tight-fitting suit. For the men, if the thought of putting on a pair of Speedos frightens you, opt for the less-revealing Speedo Jammers, which are more like bike shorts.

Cap

Caps are essential if you have long hair, mostly to cut the drag. They can also be helpful in protecting your hair from chlorine damage. Latex caps are very inexpensive and can last for a while.

Goggles

Some people are okay with swimming without eye protection. I can't do this, my eyes will burn for hours after getting out of the pool! Goggles are a matter of comfort. Don't think that you have to pay more to get a better pair. Experiment with different styles to see what works best for you.

THE CRUTCHES

Pull Buoys

In my freshman year of college, we swam the entirety of our morning workouts using buoys. At the time, I was thrilled with this- I knew I needed more upper body strength, and what better way than to isolate the arms for a full 3 workouts per week?



Unfortunately, towards the end of the swimming season, my left shoulder became sore- both in and out of the water. Without knowing what was causing my shoulder pain, I continued to train and “work through” the pain. I finished out that season okay, but after taking some time off and getting back in the pool a month later, I was in agony after doing a short workout!

Fortunately, I was able to go through physical therapy and fixed the problem. I traced the shoulder problem back to all the pulling I was doing. I decided not to pull ever again, and I have not had a shoulder problem since (13 years later).

The lesson learned from my experience was that not only can pulling with a buoy be damaging to rotator cuff muscles, it is unnecessary to make improvements in the water. I went on to 3 more years of personal records in my events each year, without the help of a buoy!

Kick Boards (as discussed in chapter 4)

THE GOOD STUFF

Paddles (good and bad)

Paddles are another controversial tool. Up until recently, I was very down on the use of paddles. The reason is that paddles are often used along with pull buoys (bad!). The purpose behind using most paddles is often to give the swimmer the feeling of having plates for hands, and to remember that feeling when the paddles are off.

The problems can be:

1. The opposite of what is supposed to happen, happens. When the paddles come off, instead of continuing to feel the power, your hands feel ineffective and unable to generate much of a pull at all.



2. Most paddles out there are designed asymmetrically, and cause the pull through the water to be off-balance. The off-balance pull will unquestionably lead to a shoulder or other problem down the road.

However, I have found an exception to the problems noted above, and a set of paddles that I am very high on. **The Finis Freestyler Paddle** can help tremendously with getting more extension in the water and a longer stroke. Use of this paddle also result in benefits like high elbows, and natural proper hand position and entry. Instead of being designed as a strength builder like other problematic paddles, this paddle designed specifically to avoid shoulder injuries and is to be used as a training aid to improve technique. I have been using them in my workouts and I love the feeling I have after taking them off- my stroke feels more effortless, like I'm gliding on top of the water! More information can be found at www.finisinc.com.

Fist Gloves

Fist gloves have been around for years, but have recently started to gain popularity. My first experience with Fistgloves was at a swim clinic. The Fistglove Stroke Trainer is a small rubber glove shaped like a mitten. You put your hand in it and it forces you to make a fist, with room for the thumb.

Swimming with these gloves is quite an experience the first time. Your hand propulsion is eliminated, and you must move yourself through the water using everything but your hands. At first it felt excruciatingly awkward! I felt like I was stripped of my wings. After doing a few drills with the gloves on, and swimming a few laps, I took them off and began to swim again. What I found was a smoother stroke. I felt as if I were just gliding on top of the water!

Although I liked the gloves initially and had some good results using them, I no longer see them as essential. The same thing can be accomplished by doing the Fist Drill and using the paddles mentioned above.



When using the gloves, you are forced to swim the correct way through the water, just like the fist drill. Taking out your hands (or opening them up) leads to more body rotation in the attempt to move forward. I believe that doing the fist drill on a regular basis can really transform a person's stroke. The fist gloves just force you not to cheat, which can be a good thing!

Fins

We talked about fins and all their benefits in the previous chapter.

Tempo Trainer

I just started using this "Metronome for Swimmers" and so far I like what I see. It can be set to whatever stroke rate you'd like. It's a small and round about the size of silver dollar, and hooks right onto your goggles. It beeps at the interval you set. This is a great tool for longer sets when strokes tend to shorten up and slow down. Also, think about using it in the open water- you can not only maintain your stroke rate, you can tell just how far you have swum. It's another product from Finis, and for the 20% discount, again you can order [here](#) and use code 'aggies'.

The bottom line is to keep it simple. Generally, the less you rely on equipment and the more you concentrate on improving technique through drills, the better your swim will be!



Section 3 : Training



Chapter 8 : Interval Training

Training for a distance swimming event is very different from training for a run or cycling event. When training for a marathon, for example, you would start out with short runs, and gradually increase your mileage each week as you build up endurance. You may work on sprints to increase speed, but overall the goal is to run further or for a longer period of time to get ready for the event.

When training for an open water swim or triathlon, you must do much more than just swim more laps each time you hop in the pool.

First of all, you have to understand that racing any distance over about 200 yards consists of using a combination of *aerobic endurance* and *anaerobic endurance*.

Aerobic means 'with oxygen.' During aerobic work, the body is working at a level where demands for oxygen and fuel can be met by the body's intake.

Anaerobic means 'without oxygen.' During anaerobic work, involving maximum effort, the body is working so hard that the demands for oxygen and fuel exceed the rate of supply and the muscles have to rely on stored reserves of fuel. Anaerobic training is generally attained at around 75% of maximum heart rate.

Interval training is used to describe the system of multiple repeat swims used in most swim training programs. An example is a set of 10 repeats of 100's at 80% effort with 10-20 seconds rest between swims.

The best way to improve aerobic endurance is through short rest periods. The most effective aerobic fitness training occurs when a swimmer begins the next repeat with their breathing and heart rate still considerably elevated from the previous swim. This condition causes physiological systems to remain overloaded for the entire set of repeats, including both the rest and work periods.



Example of a typical aerobic set:

10 x 100's on 1:45 interval

This means swimming ten 100-yard swims within 1 minute, 45 seconds, including rest. If you finish the 100-yard swim in 1:25, you get 20 seconds rest. If you finish in 1:35, you get 10 seconds rest.

Anaerobic fitness is also an important part of your training, although it should not be emphasized often when preparing for an Olympic distance, half Ironman, or Ironman-distance triathlon. Effective anaerobic fitness improvement is done in two ways. One way is through short sprints at race pace with short rest periods, which allow your body to become used to lactic acid buildup. The second is through speed work: short sprints with plenty of rest.

Examples of typical anaerobic training sets:

- 1) 20 x 25's on :25
- 2) 20 x 25's on 1:00

In set #1, you are training your body to finish a race strong, with lactic acid buildup. This type of set should not be done more than once per week. In set #2, you are building up your speed. For distance athletes, this is only needed about once every 2 weeks at the most.

Keep in mind that no training should be done at the expense of technique! There is never a point where you should cut drills completely out of your workout. If you are a true beginner, take a few lessons before you begin your training program. With the right instructor this can be one of the most valuable things you can do in training for a triathlon. If you need help finding a coach in your area, check out our directory at <http://www.triswimcoach.com/findacoach.asp>

See Appendix A, page 109 for information on how to read a pace clock.



Chapter 9 : Strength Training and Swimming

"I need to get stronger in the water, so I'm going to start lifting weights!"

If I had a nickel for every time I heard a triathlete or aspiring triathlete utter those words, I'd be rich! Many first time triathletes or those looking to improve their swim feel "weak" in the water. The immediate natural tendency is to get stronger in the weight room- by adding more weight to bench presses, bicep curls, tricep extensions, and lat pulls. The problem with this approach is that it does nothing to help one go faster in an open water swim race or triathlon!

Strength training is an important part of preparing for a triathlon and, in particular, the swim. However, rather than hitting the weight room in a traditional manner, the best approach is to work the core and simulate the muscle movement used during swimming.

Core training involves training the stabilizer muscles: abdominals, low back, and hips. Strengthening these muscles is the foundation for your strength training program; for swimming, triathlon, or overall strength and health. This need for core strength is even more important for swimming, given the use of these muscles not only for stabilization, but for the side-to-side rotation that helps propel the body through the water.

Remember, in swimming we are trying to swim like a fish or a boat. Fish and boats don't need appendages to move quickly through the water, which shows you just how important these core muscles are to swimming humans!

There are many different approaches to core training, but I've found that the simpler, the better, when it comes to strength work for a triathlon (with the time it takes to train for 3 sports, most of us don't have a lot of time left!). You only need a minimal amount of equipment to perform this routine. For demonstrations, see the pictures in the Appendix in the back of this book.



Part I: Medicine ball

Start with a small 2 lb ball and work your way up.

1. Warm up with 5 minutes of walking (or jump rope)
2. In and out from the chest: 20 reps (can also be done as chest passes with a partner)
3. Overhead from behind the neck: 20 reps (can also be done as overhead passes with a partner)
4. Behind the back passes (partner required) Stand back to back. Hand the ball to your partner from one side, they swing around and hand it back on the other side. 20 reps

Part II: Exercise Ball (see Appendix B for picture demonstrations of exercises 5-9)

5. Back extensions (spinal extensors): Knee against Swiss ball or exercise ball. Grab medicine ball and extend your arms and legs. 10-15 reps. Add 2nd set as you get stronger.
6. Prone rows (Rhomboids): Grab two 3-5lb dumbbells. Lie on your stomach on the ball with your legs straight behind you (balanced on your toes). Start with arms hanging off the ball. Bring elbows toward the ceiling. Hold 1 second and slowly lower. 10-15 reps, slowly increase weight and reps.
7. Prone push up from knees (Deltoids and Abs): If you have shoulder problems including tendonitis, don't do this exercise. Lie on your stomach on the ball and walk your hands forward until your lower thighs and knees rest on the ball. Hands should be a little wider than shoulder width apart. Bend elbows and come down to where your chest is a fist width off the floor. 10-15 reps, slowly increase reps and add a 2nd set.



8. Arm and leg extension (Lats, Gluteals, Spinal and Hip Rotators): Lie on your stomach on the ball. Fingertips and toes rest on the floor. Lift your leg and arm up on the same side (as if swimming and pushing the water up), to where your hip is pointed towards the ceiling. Hold, return to starting position. The hand should be reaching towards the foot in this exercise. Repeat on other side. Start: No weight, add 2+lbs as you get stronger.
9. Crunches on ball (abdominals): Sit on ball and walk feet forward until back is supported by the ball. Hands on chest. Flex gluteal muscles and curl up halfway, hold 1-2 seconds and lower. 10-15 reps, increase reps and add 2nd set as strength increases.

BONUS: Pull-ups (biceps, triceps, abdominals, pectorals, rhomboids, lats): Start with as many as you can do, and build up to 8-10.

Ideally, this routine should be done twice per week. Make sure you are always warmed up before you start, and never try to lift more weight than you can handle.



Chapter 10 : Yoga and Swimming



I bet you never thought there would be so much involved in this sport! I have to discuss Yoga, as I believe that it is an essential part of training for a triathlon, and particularly important for swimming. Don't worry- you can do a routine at home that

takes 20-30 minutes, and you will see benefits even from doing it once per week.

My first experience with Yoga came when I was training for my first triathlon. With all the wear on my muscles, including the lactic acid buildup due to all the workouts I was doing, I was constantly feeling stiff throughout the day. I knew I needed some flexibility and signed up for the Yoga class offered at my gym. What I found was that not only did my flexibility improve, but my muscle tightness went away, and my levels of concentration and balance dramatically improved! As you can imagine, each of these areas were extremely beneficial to my race.

Here are some benefits:

Flexibility.

Yoga does involve stretching the muscles. But there is more to it than that. People often ask me, "Is stretching good"? Usually, the answer is that just stretching itself may *not* be good for you, as stretching too much or stretching cold muscles may actually *cause* injuries. Yoga incorporates breathing into stretches, and working with the whole body, not just specific muscles. This is a much healthier approach when it comes to improving flexibility. And the more flexible your hips, legs, ankles, arms and shoulders are, the easier it will be to kick, recover the arms, rotate the hips, and properly slice the hands into the water with full extension.



Concentration.

This is another great benefit to an athlete undertaking the 3-sport challenge. Improved concentration levels allow you to focus, and we all know how focused you must be just to complete the swim! Blocking out distractions is something you need to be able to do—whether it's concentrating on a technique or drill during practice, or dealing with the frenzied start of a race. And the improved ability to stay relaxed, calm and centered will definitely work to your advantage during a triathlon, where many unpredictable situations may arise.

Balance.

Practicing yoga will improve your balance, both on land and in the water. In my swim clinics, we work on “balancing on your back” and “balancing on your side” in the water. Yoga not only helps with these drills, but allows you to streamline easier, and get more out of each stroke. This of course means saving even more energy for the rest of your race.

Finally, Yoga works the core muscles, which I talked about in the last chapter. Most of the yoga poses you will find will enhance your core conditioning.

Practicing Yoga has worked wonders for me in healing old injuries, preventing new ones, and giving me that edge in competition. Regular practice is well worth the extra time and I highly recommend squeezing in that 1-2 sessions per week, even if it's just for 20 minutes.

The best videos I have found that I use regularly are in the Gaiam series at Gaiam.com



Section 4: Putting it Together



Chapter 11: Open Water Swimming



You will need to practice in the pool, but getting some practice in the open water is essential!

The thing you will need to practice the most in the open water is navigation. Let's go over the keys to success in navigating the open water.

Navigation

In the pool, it is easy to swim straight- you have lane lines and a black line at the bottom of the pool to keep you from going too far off course (although, this doesn't prevent some people from often bumping into the lane line!) Not being able to swim straight in the open water can add unwanted distance to the race, and slow you down. The problem is not sighting enough to see where you are going. Most swimmers, in fact, do not sight, and end up off course (one reason not to trust that the person in front of you knows exactly what they are doing!)

You should sight often. Every 6-8 arm cycles is usually adequate. Lift your head at the beginning of a breath, just enough so that your goggles are just above the water. As soon as you spot the shore or an object, continue your rotation and take a breath as you tilt your head to the side. The best time to lift your head is when the arm of the side you breathe on is coming forward. As the arm passes by your goggle line, move your head to the other side and lay it down by your shoulder.

Note: Practice this in the pool first. It takes some practice, but you will get it if you just do 50-100 yards/meters of this every time you're in the pool.

Drafting

In Open Water swimming, drafting is allowed and will be a big benefit to you! First, you are getting pulled a bit by someone else. Estimates are that this gives about a 10% advantage. Second, you won't have to look up as often, as you can let your lead



swimmer do that for you. However, you still need to sight; if they are headed off course you don't want a blind leading the blind situation!

Just like sighting, drafting is best practiced in a pool. Practice with your lane buddies. You want to be close to the person in front of you without touching their feet. Ultimately, you want to be directly behind the swimmer. Make sure again, that you are not touching their feet, and that they are on course.

Open Water

It is of course important to be familiar with your surroundings before you get out into the open water. Here are some differences of rivers, lakes and oceans to help prepare you:

Rivers- The center of the river moves the fastest. Watch for eddies near the shore. Back eddies will flow the opposite direction of the river, and the water is moving backwards.

Lakes- Can also have a current flow. Wind will affect movement. Keep in mind that the fresh water will feel slightly colder than ocean salt water at the same temperature. A 60 degree lake may feel more like 55 feels in the ocean.

Oceans- Tides, currents, and winds all affect an ocean swim. Learn to read tide charts and practice swims in the waves. Marine life is also out there. Even though everybody's biggest fear is sharks, rarely is there an attack on a swimmer. In fact, to my knowledge there has never been a shark attack on a swimmer during any major open water competition or triathlon. Swimming in groups scares the sharks away. Jellyfish can be near the surface on sunny days. They are purple and white in color and their stings will leave a welt. In the 70's, jellyfish were commonplace, but their population has declined more recently. The best way to deal with them is to adjust your stroke and avoid if you spot one.



Here are some more helpful tips for swimming the open water:

1. Never swim alone. For safety purposes, always swim with a group or bring along a friend. Given the unknown elements, a dangerous situation may arise such as fog, currents, boats, etc. where you will be in much better shape with others around.
2. Adjust to cold water. If the water you are training in is cold, below 66 degrees Fahrenheit, be prepared. Wetsuits are necessary. Wearing a swim cap and earplugs can help keep your head warm. Get in the water slowly and only get in for 5-20 minutes the first time out, gradually increasing your time in the water with each swim.
3. Upon exit of your cold water swim, drink warm fluids, take off your wetsuit, and dress warmly.
4. On sunny days, apply sunscreen 30 minutes before getting in (especially for those with light skin!).
5. Be careful of the fog. It is easy to get lost in foggy weather and lose sight of the shore.
6. Watch the seaweed. If you are ocean swimming and come across seaweed, stay high in the water and do not kick. The seaweed can wrap around you if your legs are kicking.
7. Never swim in a lightning storm.
8. Open water swimming can cause chaffing. Use petroleum jelly if this is a problem.
9. Goggle color. Use dark lenses on sunny days, blue lenses on cloudy days.



Wetsuits

After the bicycle frame and components, purchasing a wetsuit is the largest expense in triathlon.

During the 1980's, triathlon events began to permit the use of wetsuits in competition. Benefits include increased buoyancy, expansion of potential workout and race venues; increased safety, and general comfort.

USAT sanctioned races allow wetsuits for races in water 78 degrees or less. USMS (Masters Swimming) swim events do not permit the use of wetsuits. Racers who decide on wearing wetsuits do so for reasons other than official placing or awards, and may be used by choice.

Why a Wetsuit?

Warmth - The neoprene or rubber material traps a layer of water close to the skin that is warmed by core body temperature and delays hypothermia in water less than 80 degrees.

Buoyancy - The wetsuit provides safe and fear-reducing buoyancy, but should not be relied upon as a life preserver.

Speed - Reduction of drag, the effects of providing buoyancy to the hips and legs, and the ease of breathing and sighting all contribute to a 10% or greater reduction in time over an Olympic distance swim (3-5 minutes!).

Energy Conservation - This should be your goal on the swim, since you still have some biking and running left to do!



Wetsuits come in 3 primary varieties and can be 1 piece or two:

Full Cut - Coverage from head to toe. Made for 50 degree + water temps.

Sleeveless - i.e. Farmer John, Farmer Jane. Made for 75 degree +
+ Short Cut- Knee length Farmer John. 75 degree +

Additional Considerations:

1. Open water swimming is often done "double capped" using latex swim caps. In addition to a wetsuit, this is a great way to keep the warmth in!
2. Fit of the wetsuit should be "second skin" tight. Legs and arms can be "cut" to length with sharp scissors, if necessary. Fit around chest and arms for ease of movement is the single most important fit consideration.
3. The first time you swim in your wetsuit, it can feel like your breathing is restricted. This diminishes with practice as long as the fit is proper.
4. "Neck rash" is the chafing that can occur around the neck due to the movement associated with breathing. "Rash Guards" are shirts that help prevent this rash and can be obtained at Costco and most surf shops. Also, (as I have learned) Vaseline helps prevent rashes.
5. Wetsuits should be rinsed after each use.
- 6. Use of "body glide" at the lower legs, neck and wrists can help in suit removal.



Largest Triathlon-related vendors:

- DeSoto
- Quintana Roo
- Ironman
- O'Neil
- Orca

Avoid using a wetsuit too often, because it hides flaws in technique (particularly with the kick). Also, wetsuits can wear out and expand from too much use, so you're better off saving them for races and cold water training.

Open water swimming can be challenging, but for many it is FUN and a nice change from "following the black line" at the bottom of the pool. Enjoy, and remember, "when in doubt, get out."



Chapter 12 : Race Day

It's finally here! After months of preparation, you are now ready to put it all together at your chosen race.

You may have had a previous race where there were numerous challenges- staying on course, getting elbowed in the head at the start, or having your goggles span off midway through. Don't let doubts try to take over your thoughts- you have done everything in your power to prepare for this day. The final preparation for the race will be to minimize the potential of major challenges. Here are some things you can do to ensure peak performance:

Get to the race early. Running late is always stressful! Try to get to the race with plenty of time to spare, to check in, situate your bike, and get a warm-up and practice session in to get comfortable with your surroundings.

Hydrate. Make sure you drink enough water or a diluted sports drink in the morning before your race. You will need it today!

Bring extra goggles. Goggle straps can break and it's best to have a backup in your bag just in case. If the sun is an issue, consider using smoked or shaded goggles. Otherwise, clear should be fine.

Examine the course and conditions. Find out which direction you will be going and what the buoys look like. Information you will need to know:

- Are there waves or choppy water?
- How many buoys or markers are on the course, and what color are they?
- What side of the buoys do you need to stay on?
- Is there a run at the finish?
- How many heats are there?



Warm up. I highly recommend doing a good warm-up in the water, at least 20 minutes. I've been late to races before and felt muscle tightness during the whole race. You don't want this! Do some easy swimming and some alternating of easy and fast swimming. Check out the swim finish line and how it will look as you are swimming towards it. Practice a finish all the way to the shore. When your hands touch bottom it's time to get up and walk or jog to the end.

The Start. The start of a triathlon can be nerve-wracking, tiring, intimidating, frustrating, and even discouraging (why do we do this sport??). But don't let all this get to you! The start for everyone is a crazy cluster of splashing, starts and stops, physical contact, and swimmers trying to separate from each other.

Here are some tips to deal with what some consider being the toughest part of any triathlon:

1. **Expect the worst.** Go into the event expecting that the start will not be easy. Know that you will bump into people, others will bump into you, but 99% of the time it is all by accident. Also know that the chaos at the beginning will not last for the entire swim, it will break up quickly as different speed swimmers separate.
2. **Prepare.** Learn the course before the gun goes off. There's nothing worse than having to wonder which way to turn around the upcoming buoy.
3. **Don't panic.** Keep your breathing from getting short. Stay as relaxed as you can while everyone else tries to get pole position. Don't let others being frantic affect your state of mind, and realize that 99% of the other swimmers are just trying to find some open water and are not out to hurt you!



4. **Stay to the outside.** Many will try to stay to the inside, as close to in line with the first buoy as they can get. Don't follow the pack. Start outside and work your way in as you approach buoy #1. You may not get perfectly clean water, but you will save yourself from much of the madness.
5. **Run until the water level is at your knees.** This will maximize your time on land without being slowed by running through water.
6. **Use shorter strokes to get through the chop.** If you are swimming in the ocean and it is a choppy day, this technique helps tremendously. Once you get to some smoother water, go back to long strokes to maximize efficiency and conserve energy.
7. **Practice.** Swim in the open water often when you are preparing for a race that has an open water start. The more experience you can develop getting used to the conditions and variables in open water vs. pool swimming, the better off you will be mentally on race day.

Some races have a beach start, others start in deep water. Bottom conditions will determine how you should enter the water on a beach start. If the bottom is sandy like many ocean events, use "dolphining". This is running and diving until the water is deep enough to start swimming. If the bottom is rough and there are rocks, do not use this method. Deep water starts involve just starting swimming when you hear the start signal.

Inexperienced swimmers and triathletes should stay to either the right or left side of the pack at the start. The mass starts are anxiety-filled and can be very physical. If you get kicked or hit, remember this is probably not intentional. Although you will be excited at the beginning, resist the temptation to keep up with the pack. Swim your own race and remember what you practiced.



These races won't be won in the first 100 meters anyway! If the water is cold and it "takes your breath away," keep moving! This is a common experience and it will be worse if you come to a complete stop.

Navigating the course. Being behind the pack gives you the advantage of following the colored caps. Keep your head down and only look up about every 25 yards or so. If you see bubbles, you are getting a drag. Drafting off other swimmers not only saves energy, but it gives you some legs or feet to follow to make sure you are on course. Again, remember to keep a rhythm, and stick with your game plan!

The Finish. The first thing is to keep swimming all the way until you can touch your hand to the bottom (as you did in warm-up). You will probably be tempted to get up sooner and start running as you see others doing this, but this definitely will slow you down and use up lots of energy. Once you can stand up, don't worry about sprinting to your bike. Instead, walk or jog to the transition and start taking your wetsuit off calmly at the same time (which of course you have already practiced!) Get on your bike, and grab your water bottle to immediately re-hydrate.

Now you're feeling good and ready for a great race!



Chapter 13: Equipment

What You Need for a Triathlon Swim

We've covered training and racing, and now it's important to say something about the equipment you will need. I've narrowed it down to goggles, swim cap, swim suit, wetsuit, earplugs, and grease. Additionally, for the weight training you will need a Swiss Ball or exercise ball.

Goggles. Try out several pairs to find the right ones. Some people (me included!) are allergic to the foam that some goggles have for padding around your eyes. Be careful with those or you'll end up with a nice set of raccoon eyes! Many triathletes prefer the mask style, which have added benefits of 180 degree visibility and blocking out of UVA and UVB rays.

Swim Cap. When in cold water, it's a good idea to wear two swim caps. The brighter the cap, the better, since you will be noticed by windsurfers and boats, and it is easier for lifeguards to keep an eye on you. You have two main options: lycra or latex. Lycra absorbs water but may keep your head cooler in warmer water. Latex does not absorb water but may make you too hot in warm water.

Wetsuit. Wetsuits are legal for triathlons. They help a swimmer stay warm and aid in buoyancy. This improved positioning reduces drag thereby increases speed. If the water is warm, however, many race participants will not use a wetsuit because of the greater chance of overheating. (more on this in the previous chapter on Open Water Swimming)

Earplugs. If you have a tendency to get cold or you are out in cold water for a long period of time, earplugs will help reduce heat loss from your head and keep cold water from reaching your inner ear and disrupting your balance.



Section 5 : The Training Plans

Training Plan Preview

“There is no better time than NOW.”

If you are shooting to enter your first race, or you are currently looking to improve your weakest link, this is the time! If this is your off-season, this is a perfect time to undertake the project of mastering swimming before next season. And many triathlon coaches agree that you should spend the most time working on your worst sport.

In the following pages I have included a 12-week swim training plan for a Sprint Distance triathlon, followed by similar plans for an Olympic Distance, Half Ironman or Long Course swim, and a Full Ironman. These can be applied to a 25-yard or 25-meter pool. A few words about the plans:

- Distances are listed in yards, but these workouts can be done in a 25 meter pool. Keep in mind that 25 meters is equal to approximately 27 yards, so you will be doing a little extra if training 25 meters.
- If you have never used a pace clock in the pool before, skip to the back of the book, Appendix A, page 109, before diving in to the workouts.
- The first workout assumes that you are already somewhat in shape with a formidable stroke. If you are still struggling with technique, you may want to take a few lessons before beginning the plan.
- On the stroke count drills, 1 stroke=1 arm stroke. So you would count the right arm as one, and the left arm as 2, etc.



- The training plan starts out with about half drills and half light interval training. As the weeks go by, it switches to more and heavier interval training, and less drills. But note that drills never disappear completely.
- My recommendation is adding in some open water swimming by the 3rd week. On the days where I have listed "Olympic Distance 1500", for example, you can replace your pool swimming with an open water day.
- A word about cruise intervals. I have listed the definition of a cruise interval as "Cruise = an interval you can make 100's free on comfortably with about 10-15 seconds rest. Example: 5x100's on 1:45." So, if your cruise interval is 1:45 and you're doing 200's on cruise, you double your interval and go on 3:30. If you are doing 50's, you cut the interval in half and can either go them on :50 or :55.
- Some of the workouts include strokes other than freestyle. It is important to cross-train in swimming, to avoid shoulder injuries, burnout, etc. However, if you don't know butterfly and breaststroke, just substitute free and backstroke (learn backstroke if you haven't already!) on these occasions.
- There are many abbreviations and unique terminology used in the workouts. I have put these in **bold** and included definitions at the end of each plan.

Let's look at a typical workout and dissect it, so you really know how to decipher these workouts:

300 Warm Up

300 yards or meters. 12 lengths in a 25 yard or meter pool. During a warm up, you should be going at a moderate pace, working on bilateral breathing, mixing in strokes other than freestyle, and really stretching out your stroke.



6x75's**Odds: K/Fist/Swim****Evens: Stroke**

This means 3 lengths 6 times. Rest :10-:15 after each 75-yard swim. Odd number 75's (#'s 1, 3, 5) will be Kicking on your side on the first length (K), then swimming with your fists on the second length, followed by a length of freestyle. Even number 75's (#2, 4, 6) will be a stroke other than freestyle. You may use fins on the odd number 75's, but make sure they are the shorter kind, like Zoomers.

15x100's**#1-5) on Cruise****#6-10) on Cruise-:05****#11-15) on Cruise +:05**

15 100-yard or meter swims on an interval. "Cruise" means an interval you can make 100's on with about 5-10 seconds rest in between each. For example, if you did your 100's on 1:50, and your time on the 100 was 1:40, you get 10 seconds rest. "Cruise -:05" means to take 5 seconds off your interval. In the example above, you would be doing the middle set of 100's on 1:45, and the last set on 1:55.

6x50's Free Golf Rest=:20

Swim a 50 free and count your strokes. Also, check your time on the pace clock when you finish. Add those 2 numbers together to get your "score". For each 50, try to lower that score by making your stroke more efficient (and faster). For example, if I did a 50 in 35 seconds and it took me 38 strokes, my score would be $(35+38)=73$. Shoot for 72 on the next round by gliding a little more, focusing on hip rotation, without losing speed. Keep dropping your score as far as you can go, and don't be tempted to just kick harder to bring your score down!

Warm Down: 200

Start out your warm down at about 75% effort and drop down from there. Warm downs are a good chance for you to again practice bilateral breathing and stretch out your stroke, focusing on technique, and lowering the lactic acid content in your muscles.



If you have any questions on the workouts, or on the terminology, please email me at Kevin@triswimcoach.com and I will respond to you as quickly as possible.

Alternatively, if you need help in a certain area, it is likely that another one of our members has wondered the same thing. Ask away at our [Discussion board](http://www.triswimcoach.com/members/index.php), www.triswimcoach.com/members/index.php

Good luck and have fun with this crazy sport!



Triathlon Swim Workouts : Sprint Distance Triathlon 12-Week Plan

Sprint distance triathlons can vary in length, but usually the swim is between 400-750 meters (500-1000 yards). The most common is 750 meters, so the plan is designed for this distance (if your race is smaller you will just be in that much better shape! Or you can adjust the length of the workouts according to your specific race). However you go about it, if you follow the general format of each workout, you will find yourself in excellent shape for your chosen event 12 weeks or more out.

If the first couple of weeks seem daunting, start with several pool sessions consisting of drills only, and work your way up to longer distances.

Have fun!



Week 1**Day 1**

WARM UP:

200 Free

DRILL/MAIN:

200 Free

1) Kick/Swim by 25's. Swim with fists only.

25+50+75 Free

75+50+25 Free

SC throughout. Just note **SC** and Find your *spl* range.

Rest= 10-15 seconds between swims.

3x(4x25's) Free

Take your lowest spl on previous swim

Start 1st 25 trying to hit that **SC**

Add 1 spl for one set, then subtract 1 spl for the next set. Repeat. Eg. 14-15-

16-17-18 spl

6x50's Free

1) SC 2-6) Try to hit the # of strokes you got in #1 on each 50.

Rest: 10-15 seconds between 50's

WARM DOWN:

100 Back/Free by 25's. Free breath every 3 strokes.

TOTAL: 1400 Yards

Day 2

WARM UP:

200 Free, breathe every 3 strokes

DRILL/MAIN:

4x75's Free



K/Finger Tip Drag/DPS

Rest : 15 btw 75's

25+50+75+100

100+75+50+25

All Free

SC, first 25 is benchmark. Remember that number and try to hit that number or lower on each length. Notice how changes to your stroke affects spl.

Rest : 15 btw swims

5x75's Free

1) **SC** 2-5) Do not go over the # of strokes you got on #1

Rest 10-15 seconds between 75's

4x100's Free

1,2 & 4) **Cruise**

3) **SC**. Try to keep your spl in the lower range.

WARM DOWN:

100 Free, breathe only on your weaker side on odd lengths

TOTAL: 1975 Yards

Day 3

WARM UP: 200 Back/Free by 25's

DRILL: 4x100's Odds: 4 **ST** Back/4 **ST** free by 25's Evens: 25 **Fist**/25 Free

Rest: : 15

MAIN: 2x(3x50's K + 3x100's Free/Back by 25 + 2x75 Free **SC**-1)

WARM DOWN: 4x50's Free Golf @ 1:00

TOTAL: 1975 Yards



*Week 2***Day 1**

WARM UP: 300 Free

DRILL: 6x50's Odds: **Shark Fin** Evens: **DPS** Rest= :15

5x100's Free 1) SC 2-5) Keep SC the same or lower Rest= :20

MAIN: 400+300+200+100 @ **Cruise**

WARM DOWN: 100 Choice

TOTAL: 2200 Yards

Day 2

WARM UP: 2x150's 1) Free 2) Breast/Free by 25

DRILL: 6x50's **3/4 Catchup** Rest= :15

2x200's 1) SC 2) Keep the same **SC** or lower

MAIN: 2x(3x100+4x50) 100's: Cruise 50's: **SC-1**

WARM DOWN: 150 Breathe every 3-5 strokes

TOTAL: 2100 Yards

Day 3

WARM UP: 4x75's Odds: Breathe every 3-5-3 by 25's. Rest= :15 Evens: Non-Free

DRILL: 6x50's **IM** Switch. Rest= :15

400 Free SC on 1st 50, maintain SC throughout

MAIN: 2x(200 Free+3x100 I.M.) 200's: Moderate. 100's: Hard on cruise +:15

WARM DOWN: 150 Easy

TOTAL: 2150 Yards



Week 3**Day 1**

WARM UP: 300 Free **Kick**/Swim

DRILL: 200 Free Alternate 25 **Fist**/25 Swim

4x50's Free Golf @ 1:00-1:15

MAIN: 2x(4x100) Set #1) **Descend** 1-4 @ Cruise +:10 #2) SC-1 @ Cruise +:15 BREATH

CONTROL: 300 Free breathe every 3-5-5 strokes by 100

4x50's limit # of breaths to 6, 4, 3, 2 by 50

WARM DOWN: 150 Easy

TOTAL: 2150 Yards

Day 2

WARM UP: 300 every 4th lap backstroke

DRILL: 4x100 50Kick/50 6Kick per stroke. Odds: Back. Evens: Free

MAIN: 3x(200 + 4x50's) 200's: Moderate, Rest=:30 50's: On **cruise** interval

KICK/SWIM: 6x50's Kick/Swim @ Rest= :10 Alternate Free/Back by 50's

WARM DOWN: 4x50's Start at 80%, decrease the effort by 20% each 50

TOTAL: 2400 Yards

Day 3

WARM UP: 3x100 @ **Cruise** +:15 Build

DRILL: 8x50's 1) SC 2-8) Keep **SC** the same or lower as #1 Rest= :15

MAIN: 2x(2x150 + 4x75) Keep all swims at **Max HR** or lower Rest= :20 for the 150's, :15 for the 75's

2x200 1) Breathe ev 3-5-7-3 ST by 50 2) SC-2 by 50

WARM DOWN: 150 Breathe on weak side only on odd lengths

TOTAL: 2450



Week 4

(recovery week)

Day 1

WARM UP: 300 Choice

DRILL: 4x100's SC-1 per 25 Rest= :20

MAIN: 3x300's Free **Descend** 1-3 Keep **SC** consistent Rest= :45

WARM DOWN: 200 Breathe weak side only on odd lengths

TOTAL: 1800 Yards

Day 2

WARM UP: 200 I.M. Kick/Swim + 200 Free

DRILL: 25+50+75+100 **SC**, pay attention to technique. Are you looking at the bottom of the pool with just a little of the back of your head out of the water? Is your stroke LONG in the water, and are you getting distance out of each stroke? Are your hips rotating? Rest= :15 btw swims

3x(5x25) Start with lowest SC in previous set, add 1 stroke per 25 within set. Then go back down, and repeat.

MAIN: 3x200 1,2) **SC**, moderate pace 3) **DPS** hard Rest= :45

WARM DOWN: 4x50's breathe 3-5-5-3 by 50. Rest= :30

TOTAL: 2075 Yards

Day 3

SPRINT DISTANCE 750 Meters or 1000 Yards

Pay attention to **SC** and technique

Do not worry about speed



Week 5**Day 1**

WARM UP: 300 Free Every 4th lap Kick

DRILL: 6X50's Drill/Swim by 25. Odds: **Fist**. Evens: 6 Kicks/Stroke. Rest= :15

3x150 1) **SC** 2,3) Keep **SC** the same or lower than #1 Rest= :30

MAIN: 3x300's **Descend** 1-3 @ cruise +:05

WARM DOWN: 4X50's **Ascend** @ 1:00

TOTAL: 2150

Day 2

WARM UP: 2x(150+4X25's) Round 1) Free Round 2) Back (or back/free)

KICK: 8x50's, 2 of each stroke. 1 easy, 1 fast @1:00-1:15

MAIN: 3x(3x100)

Set #1) @ cruise

Set #2) **SC**-1 Rest= :30

Set #3) @ cruise

300 Free Breathe every 3-5-7-3 by 100

SPRINT: 8x25's Easy/Fast by 25 @ :35

WARM DOWN: 200 Easy

TOTAL: 2500 Yards

Day 3

WARM UP: 400 Free every 4th lap **SC**

DRILL: 4x100

Odds: **Finger tip drag**/Free (alternate by 25's)

Evens: **Fist**/Free (alternate by 25's) Rest= :20

MAIN: 3x(2x150 + 4x50)

200's: @ cruise

50's: cruise +:05, **descend** Rest :30 btw sets

STROKE COUNT: 6x50's **Free Golf** @1:00-1:15

WARM DOWN: 200 Breathe every 3 or 5 Strokes

TOTAL: 2800 Yards



Week 6**Day 1**

WARM UP: 4x100's

#1,2) @ Cruise +:20

#3,4) @ Cruise + :15

#5,6) @ Cruise +:10

DRILL: 6x75's Kick/Drill/Swim

Drill=Free, concentrate on high elbows. Rest= :15

MAIN: 1x50 @ 1:00 + 1x50 @ **Cruise**

1x50 @ Rest= :15 + 2x50's @ **Cruise**

1x50 @ Rest= :15 + 3x50's @ **Cruise**

1x50 @ Rest= :15 + 4x50's @ **Cruise**

1x50 @ Rest= :15 + 4x50's @ **Cruise** +:05

1x50 @ Rest= :15 + 3x50's @ **Cruise** +:05

1x50 @ Rest= :15 + 2x50's @ **Cruise** +:05

1x50 @ Rest= :15 + 1x50 @ **Cruise** +:05

50's on Rest= :15: **SC, DPS**

50's on interval: Hard, Free on the way up, **ST** on the way down

300 Free Breathe every 3-5-7 strokes by 100

WARMDOWN: 200 Back/Free (alternate by 25's)

TOTAL: 2750 Yards

Day 2

WARM UP: 300 (50 Free, 50 Back, 50 Breast, repeat)

6x50's Back/Free, Breast/Free (alternate by 25's), Free. Repeat.

MAIN: 2x100 Free Moderate pace @ cruise +:10

6x50's Kick, Choice, **Descend** 1-3, 4-6 @ :10 rest

2x100 Free @ **cruise** +:05



4x75's Back/Breast/Free by 25 Rest= :15

2x100's Free @ **cruise**

3x100's Non Free @ **Cruise** + :20

DRILL: 8X50's **Free Golf**

WARM DOWN: 300 Free, Breathe every 3-5-3 by 100

TOTAL: 2800

Day 3

WARM UP: 300 Choice

DRILL: 4x50's **Fist**

4x75's 25 $\frac{3}{4}$ **Catchup**, 50 **DPS**

4x25's **Descend** 1-4

Rest= your choice

MAIN:

1x150 1x200

1x150 2x200

1x150 3x200

150's: Moderate, 1:00 rest. Count Strokes, keep consistent

200's @ **cruise** +:20

BREATH CONTROL: 3x100's breathe every 3-5-3-7 by 25. Rest= :20

WARM DOWN: 200 Back/Free (alternate by 25's)

TOTAL: 3050



Week 7**Day 1**

WARM UP: 300

DRILL: 6x50's

Odds: 25 Kick/25 Free Drill

Evens: 25 Drill/25 **Build**

4x(3x25's)

Fly, back, breast, free by set of 25's

Easy-Moderate-Hard. Rest= :10

MAIN: 3x(1x200, 2x100)

250's: IM with an extra 50 Free Rest= :20

100's #1) Kick. Rest= :10 #2) Free, hard. Rest= :30

WARM DOWN: 200

TOTAL: 2300

Day 2

WARM UP: 2x200

#1) Kick/Swim

#2) Swim, **build**

DRILL: 2x300's Free, Count strokes by 50. Try to decrease stroke count on 2nd 300.

MAIN: 3x(3x100)

Set #1) @ **cruise** +:10

#2) @ **cruise** +:05

#3)@ **cruise**

100 Easy

4x125's Free 100 Fist, 25 Swim Rest= :25

WARM DOWN: 200 Easy

TOTAL: 2700



Day 3

WARM UP: 400, Every 4th length non-free

10-minute swim, focus on different aspect of your stroke every 6 lengths

5x(4x25) @ :35-:40

Descend 1-4 within set, **Descend** Stroke Count 1-4 within set

WARM DOWN: 300, every 3rd length non-free

Day 4

Sprint Distance 750 Meters or 1000 Yards



Week 8**BEGIN SPEED****Day 1**

WARM UP: 300 Easy

12X50's #1-4) **Descend SC** #5-8) **Descend** Time #9-12) **Free Golf** Rest= :15

300 Breathe every 3-5-7 strokes by 100

12x25's @: 35 Easy/**Build**/Easy/Fast by 25.

WARM DOWN: 300 Back/Free

TOTAL: 1800

Day 2

WARM UP: 4x100's @ cruise +:20 Choice

DRILL: 6x75's

Odds: Kick/**FT Drag**/Swim

Evens: Kick/**Fist**/Swim

MAIN: 1x50 1x100

1x50 1x200

1x50 1x300

1x50 1x400

50's: All hard @ cruise +:20

Long swims: moderate @ cruise +:10 Count Strokes every 4 lengths

2x200's:

#1) Breathe on weaker side only

#2) **SC**-2 by 50

WARM DOWN: 300 **Ascend** throughout (start out 80% and drop down effort)

TOTAL: 2750



Day 3

WARM UP: 300 Back/Free alternate by 25

DRILL: 4x125's

50 **kick**/50 done as 4 strokes Back, 4 strokes Free/25 Free Rest= :20

MAIN: 3x400's

#1) 400 Straight

#2) 2x200's @ **cruise** +:05

#3) 4x100's @ **cruise** #4)

8X50s Rest=:15

Set #4, alternate Back and Free by 50's. Pay attention to hip rotation.

STROKE COUNT: 25+50+75+100+100+75+50+25 Rest= :15-:20 btw swims

Go faster on the way up and slower on the way down. Count strokes and adjust accordingly.

WARM DOWN: 200 Back/Free (alternate by 25's)

TOTAL: 2700



Week 9**Day 1**

WARM UP: 200 Choice

DRILL: 6X100's 25 kick/50 **Fist**/25 Build, Rest= :20

MAIN: 15x100's Rest= :20

Focus on 1 aspect of your stroke every 3 100's.

WARM DOWN: 100 Easy

TOTAL: 2400

Day 2

WARM UP: 2x(3x100)

Set #1) Easy, Rest= :15

Set #2) **Build @ Cruise** +:10

DRILL: 4x150's: 50 kick/50 6 Kicks per stroke/50 Swim Rest= :15

MAIN: 4x(3x50's + 2x100)

50's: Hard @ Cruise +:20 or Rest= :30

150's: #1) **SC**, #2) SC-2 Rest= :20

WARM DOWN: 6x50's **Ascend**, keep **SC** consistent

TOTAL: 3150 yards



Day 3

WARM UP: 300 Choice

8x50's

Odds: Non-Free, Drill/Swim

Evens: Free, Drill Swim Rest=:15

4x50's Kick, Descend 1-4 Rest =:15

100 Easy

MAIN: 3x(4x150's)

#1-3) 50 Free breathe every 3 **Stroke**/100 Free Normal. **Descend** 1-3 @
cruise +:10

#4) 150 Easy Choice Rest= :30

WARM DOWN: 4x50's **Ascending**, Rest= :20

TOTAL: 3000 Yards



Week 10**BEGIN TAPER****Day 1**

WARM UP: 300 Choice

DRILL: 2x150's 50 Drill (your choice)/100 Swim

6x50's

#1,2) Kick, **Descend**

#3,4) Swim, **Descend SC**

#5,6) Swim, Descend time

MAIN: *(lots of speed changes for this distance freestyle set designed for triathletes and open water swimmers)*

2 x 25

- Free, sprint and sight (S&S)
- On cruise or Rest= :05

2 x 75

- 25 S&S / 50 moderate swim
- On **cruise** or Rest= :10

2 x 125

- Moderate effort, freestyle swim

- Breathing every 3rd stroke

- On cruise + :05 or Rest= :15

2 x 300

- Freestyle swim, **descend** 1->2

- On cruise + :10 or Rest= :30

2 x 125

- #1: FAST on cruise - :05 or Rest= :05

- #2: Moderate on cruise + :15 or Rest= :20

2 x 75

- #1: FAST on cruise - :05 or Rest= :05

- #2: Moderate on cruise + :15 or Rest= :20

2 x 25

- #1: FAST on cruise - :05 or Rest= :05

- #2: Moderate



The Complete Guide to Triathlon Swimming

WARM DOWN: 8X25's

Odds: Free, breathing every 3 strokes

Evens: Easy Backstroke

TOTAL: 2600

Day 2

WARM UP: 2x200 #1) Free, Easy, focus on good body rotation #2) Build by 100's

DRILL: 4x100 25 Left arm only/25 Right arm only/50 Swim Rest = :10

MAIN: 1x600 **Build** by 200's Rest 1:30

8x50's Odds: **SC**-1 @ cruise +:10 Evens: **Descend** 1-4 @ cruise +:05

1x400 Free 85% effort

6x25's K/Swim **Descend** swims. Rest = :10

WARMDOWN: 150 Back/Free by 25's

TOTAL: 2500

Day 3

WARM UP: 2x(100 Free/100 Non-free)

DRILL: 8x50's Odds: 25 Fist/25 **SC**

Evens: **Descend**

Rest = :20

MAIN: 4x300's

#1) 6x50's@cruise +:05

#2) 3x100's @ cruise

#3) 300 **DPS** Rest = :40

#4) 300 90% effort

6x50's **Free Golf**, Rest = :20

WARM DOWN: 200 **DPS**

TOTAL: 2500



Week 11**Day 1**

WARM UP: 300, every 4th length backstroke

DRILL 2x200's:

#1) SC-2 per 50

#2) Build

MAIN: 2x500's

#1) Concentrate on 1 aspect of your stroke every 6 lengths

#2) Build to 85% Rest= 1:00

WARM DOWN: 200 Easy

TOTAL: 1900

Day 2

WARM UP: 300 Choice

DRILL: 300 3x[(25 Kick/75 **DPS** (count strokes))]

MAIN: 2x750's

#1) Maintain steady pace

#2) Shift Gears, Count strokes and go faster

WARM DOWN: 200 Breathe every 3

TOTAL: 2300



Day 3

WARM UP: 300 Choice

DRILL: 3x100

#1) Kick

#2) **Fists**

#3) **Build**

MAIN: 3x(4x50's + 200)

4x50's: Hard @ Cruise +:30

200's: Easy Rest= :30

WARM DOWN: 300 Breathe every 3 strokes on odd lengths

Total: 2100

Day 4

500 at Race Pace



Week 12**Day 1**

WARMUP: 300 Choice

DRILL: 300 **SC**-2 per 100

MAIN: 2x500

#1) **DPS**

#2) Race pace Rest= 1:30

WARMDOWN: 200 Easy

TOTAL: 1800

Day 2

WARM UP: 200 **DPS**

DRILL/MAIN: 3x(150 SC + 4x50's **Descend** 1-4)

150's: Rest= :30

50's: @ **cruise** +:10

8x25's Easy/Build/Easy/Fast, Repeat @ :30-:45

WARMDOWN: 150 Back/Free by 25

TOTAL: 1600

Day 3

WARM UP: 400 **SC**

8x25's 12.5 yards sprint, 12.5 yards easy @ :30-:45

WARM DOWN: 400 **SC**

TOTAL: 1000

Day 4

RACE TIME! Sprint Distance Triathlon



Glossary

@ = "on", i.e. 10x100's @ 2:00 means 10 100's on the 2:00 interval

SC = Stroke Count

spl = Strokes per length

ST = Strokes

DPS = Distance per Stroke, try to maximize

K = Kick

Build = build within the swim, i.e. 200 Free Build means start off easy, and get faster throughout the 200.

Cruise = an interval you can make 100's free on comfortably with about 10-15 seconds rest. Example: 5x100's on 1:45.

Descend = Get faster throughout the set. Example, 4x100 Descend 1-4. #1 would be relatively easy, #4 is HARD.

Ascend = The opposite of Descend- ease up throughout the set.

Free Golf = Count your strokes and check your time after each swim. Add the 2 numbers and that's your golf score. Try to "beat" your score on each one by lowering that number.

I.M. = Fly, Back, Breast, Free in that order.

I.M. Switch = 50's alternating Fly/Back, Back/Breast, Breast/Free, Free/Fly

Max HR = Maximum Heart Rate. To determine your Max HR, take 180-your age+5. For example, Mine would be 180-32+5= 153

Taper = The period before your race where workouts ease up and you begin to rest for your event. Intensity and distance will both decrease, longer swims added in.

with



Drills:

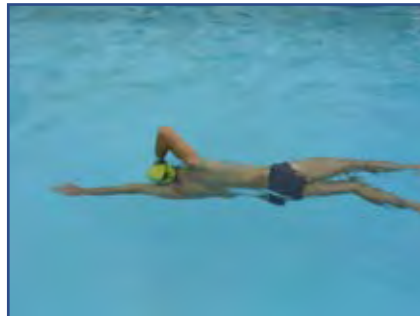
$\frac{3}{4}$ Catchup- taking strokes about $\frac{3}{4}$ of the way to touching your other hand before each recovery

6K/Stroke- For each stroke (one arm) take 6 kicks. This is reinforcing the rotation from side to side in freestyle.

Fists- Swim freestyle with your hands in fists

Finger Tip Drag – Drag your finger tips through the water on recovery. You will need a bent elbow to do this properly.

Shark Fin- While kicking on your side, extend one arm. Slowly point elbow of trailing arm up towards sky, hand almost touching your side, making a “shark fin.” Slide hand back down, breathe, repeat.



Shark Fin Drill



Triathlon Swim Workouts : Olympic Distance Triathlon 12-Week Plan

Week 1

Day 1

WARM UP:

300 Free

DRILL/MAIN:

200 Free

1) Kick/Swim by 25's. Swim with fists only.

25+50+75+100 Free

100+75+50+25 Free

SC throughout. Just note **SC** and Find your **spl** range.

Rest= 10-15 seconds between swims.

4x(5x25's) Free

Take your lowest spl on previous swim

Start 1st 25 trying to hit that **SC**

Add 1 spl for one set, then subtract 1 spl for the next set. Repeat. Eg. 14-15-

16-17-18 spl

12x50's Free

1) SC

2-12) Try to hit the # of strokes you got in #1 on each 50.

Rest: 10-15 seconds between 50's

WARM DOWN:

100 Back/Free by 25's. Free breath every 3 strokes.

TOTAL: 2200 Yards

Day 2

WARM UP:

300 Free, breathe every 3 strokes



DRILL/MAIN:

6x75's Free

Kick/**Finger Tip Drag/DPS**

Rest : 15 btw 75's

25+50+75+100

100+75+50+25

All Free

SC, first 25 is benchmark. Remember that number and try to hit that number or lower on each length. Notice how changes to your stroke affects spl.

Rest : 15 btw swims

8x75's Free

1) **SC**

2-8) Do not go over the # of strokes you got on #1

Rest 10-15 seconds between 75's

5x100's Free

1,2 & 4,5) **Cruise**

3) SC. Try to keep your spl in the lower range.

WARM DOWN:

150 Free, breathe only on your weaker side on odd lengths

TOTAL: 2500 Yards

Day 3

WARM UP: 300 Back/Free by 25's

DRILL: 6x100's

Odds: 4 strokes Back/4 strokes free by 25's

Evens: 25 **Fist**/25 Free

Rest: :15

MAIN: 2x(3x50's + 3x100's Free/Back by 25+3x75 Free **SC**-1)

WARM DOWN: 5x50's Free Golf @ 1:00

TOTAL: 2475 Yards



*Week 2***Day 1**

WARM UP: 400 Free

DRILL: 10x50's

Odds: **Shark Fin**

Evens: **DPS** Rest= :15

6x100's Free

1) SC

2-6) Keep SC the same or lower Rest= :20

MAIN: 400+300+200+100 @ **Cruise**

WARM DOWN: 100 Choice

TOTAL: 2600 Yards

Day 2

WARM UP: 2x200's 1) Free 2) Breast/Free by 25

DRILL: 6x50's **3/4 Catchup** Rest= :15

3x200's

1) SC

2,3) Keep the same **SC** or lower

MAIN: 2x(4x100+4x50)

100's: Cruise

50's: **SC-1**

WARM DOWN: 150 Breathe every 3-5 strokes

TOTAL: 2600 Yards



Day 3

WARM UP: 6x75's Rest= :15

Odds: Breathe every 3-5-3 by 25's.

Evens: Non-Free

DRILL: 8x50's **IM Switch** Rest= :15

600 Free

SC on 1st 50, maintain SC throughout

MAIN: 2x(300 Free+3x100 I.M.)

300's: Moderate

100's: Hard on cruise +:15

WARM DOWN: 150 Easy

TOTAL: 2800 Yards



Week 3**Day 1**

WARM UP: 400 Free Kick/Swim (alternate by 25's)

DRILL: 300 Free Alternate 25 **Fist**/25 Swim

4x50's **Free Golf** @ 1:00-1:15

MAIN: 3x(4x100)

Set #1) **Descend** 1-4 @ Cruise +:10

#2) SC-1 @ Cruise +:15

#3) Descend 1-4 @ Cruise -:05

BREATH CONTROL: 300 Free breathe every 3-5-5 strokes by 100

4x50's limit # of breaths at 6, 4, 3, 2 by 50

WARM DOWN: 150 Easy

TOTAL: 2750 Yards

Day 2

WARM UP: 400 every 4th lap backstroke

DRILL: 4x125

Done as: 50 kick/50 6 kicks per **ST/25 DPS**

Odds: Back

Evens: Free

MAIN: 3x(300 + 4x50's)

300's: Moderate, Rest=:30

50's: Cruise interval

KICK/SWIM: 8x50's Kick/Swim (alternate by 25) @ :55-1:05

Alternate Free/Back by 50's

WARM DOWN: 4x50's Start at 80%, decrease the effort by 20% each 50

TOTAL: 3000 Yards



Day 3

WARM UP: 4x100 @ **Cruise** +:15 Build

DRILL: 12x50's

1)SC

2-12) Keep **SC** the same or lower as #1 Rest= :15

MAIN: 2x(2x150 + 4x100) Keep all swims at **Max HR** or lower Rest= :20 for the 150's,
:15 for the 100's

2x200

#1)Breathe ev 3-5-7-3 ST by 50

#2) SC-2 by 50

WARM DOWN: 200 Breathe on weak side only on odd lengths

TOTAL: 3000



Week 4

(recovery week)

Day 1

WARM UP: 400 Choice

DRILL: 6x100's

SC-1 per 25 Rest= :20

MAIN: 3x400's Free

Descend 1-3 Keep **SC** consistent Rest= :45

WARM DOWN: 200 Breathe weak side only on odd lengths

TOTAL: 2400 Yards

Day 2

WARM UP: 200 Kick/Swim+200 Free

DRILL: 25+50+75+100 **SC**, pay attention to technique. Are you looking at the bottom of the pool with just a little of the back of your head out of the water? Is your stroke LONG in the water, and are you getting distance out of each stroke? Are your hips rotating? Rest= :15 btw swims

4x(5x25) Start with lowest SC in previous set, add 1 stroke per 25 within set. Then go back down, and repeat.

MAIN: 3x200

1,2) **SC**, moderate pace

3) **DPS** hard Rest= :45

WARM DOWN: 4x50's breathe 3-5-5-3 by 50. Rest= :30

TOTAL: 2200 Yards

Day 3**OLYMPIC DISTANCE 1500**

Pay attention to **SC** and technique

Do not worry about speed



Week 5**Day 1**

WARM UP: 400 Free Every 4th lap **K**

DRILL: 8X50's

Drill/Swim by 25

Odds: Fist

Evens: 6K/Stroke Rest= :15

3x200

#1)SC

#2,3) Keep **SC** the same or lower than #1 Rest= :30

MAIN: 3x300's

Descend 1-3 @ cruise +:05

WARM DOWN: 4X50's **Ascend** @ 1:00

TOTAL: 2500

Day 2

WARM UP: 2x(200+4X25's)

Round 1) Free

Round 2) Back (or back/free)

KICK: 8x50's 2 of each stroke. 1 easy, 1 fast (alternate) @1:00-1:15

MAIN: 3x(4x100)

Set #1) @ cruise

Set #2) **SC**-1 Rest= :30

Set #3) @ cruise

400 Free Breathe every 3-5-7-3 strokes by 100

SPRINT: 8x25's Easy/Fast by 25 @ Cruise +:05

WARM DOWN: 200 Easy

TOTAL: 3000 Yards



Day 3

WARM UP: 400 Free every 4th lap **SC**

DRILL: 6x100

Odds: **Finger tip drag**/Free

Evens: **Fist**/Free Rest= :20

MAIN: 3x(2x200 + 4x50)

200's: @ cruise

50's: cruise +:05, descend Rest :30 btw sets

STROKE COUNT: 6x50's **Free Golf** @1:00-1:15

WARM DOWN: 200 Breathe every 3 or 5 strokes

TOTAL: 3300 Yards



Week 6**Day 1**

WARM UP: 6x100's

#1,2) @Cruise +:20

#3,4) @Cruise + :15

#5,6) @Cruise +:10

DRILL: 8x75's

Kick/Drill/Swim

Drill=Free, concentrate on high elbows Rest= :15

MAIN: 1x50 @ 1:00 + 1x50 @ Cruise

1x50 @ 1:00 + 2x50's @ **Cruise**

1x50 @ 1:00 + 3x50's @ **Cruise**

1x50 @ 1:00 + 4x50's @ **Cruise**

1x50 @ 1:00 + 4x50's @ **Cruise** +:05

1x50 @ 1:00 + 3x50's @ **Cruise** +:05

1x50 @ 1:00 + 2x50's @ **Cruise** +:05

1x50 @ 1:00 + 1x50 @ **Cruise** +:05

50's on 1:00: **SC, DPS**

50's on interval: Hard, Free on the way up, **SC** on the way down

400 Free Breathe every 3-5-7-3 strokes by 100

WARMDOWN: 200 Back/Free (alternate by 25's)

TOTAL: 3250 Yards



Day 2

WARM UP: 300 (50 Free, 50 Back, 50 Breast, repeat)

6x50's Back/Free, Breast/Free, Free. Repeat.

MAIN: 2x100 Free Moderate pace @ cruise +:10

6x50's Kick, Choice, **Descend** 1-3, 4-6 @ :10 rest

2x100 Free @ **cruise** +:05

4x75's Back/Breast/Free by 25 Rest= :15

2x100's Free @ **cruise**

3x100's Non Free or **I.M.** @ **Cruise** + :20

DRILL: 8X50's **Free Golf**

WARM DOWN: 300 Free, Breathe every 3-5-3 strokes by 100

TOTAL: 2800

Day 3

WARM UP: 300 Choice

DRILL: 4x50's **Fist**

4x75's 25 $\frac{3}{4}$ **Catchup**, 50 **DPS**

4x25's **Descend** 1-4

Rest= your choice

MAIN:

1x175 1x225

1x175 2x225

1x175 3x225

175's: Moderate, 1:00 rest. Count Strokes, keep consistent

225's @200 **cruise** +:20

BREATH CONTROL: 4x100's breathe every 3-5-3-7 strokes by 25. Rest= :20

WARM DOWN: 200 Back/Free

TOTAL: 3150



Week 7**Day 1**

WARM UP: 300

DRILL: 8x50's

Odds 25 kick/25 Free Drill of your choice

Evens: 25 Drill/25 **Build**

4x(3x25's) Fly, back, breast free by set of 25's Easy-Moderate-Hard Rest= :10

MAIN: 3x(1x250, 2x100)

250's: **I.M.** with an extra 50 Free Rest= :20

100's:

#1) Kick Rest= :10

#2) Free, hard. Rest= :30

WARM DOWN: 200

TOTAL: 2550

Day 2

WARM UP: 2x200

#1) Kick/Swim

#2) Swim, **build**

DRILL: 2x300's Free, Count strokes by 50. Decrease SC on 2nd 300.

MAIN: 3x(4x100)

Set #1) @ **cruise** +:10

#2) @ **cruise** +:05

#3) @ **cruise**

100 Easy

4x125's Free

100 Fist, 25 Swim Rest= :25

WARM DOWN: 200 Easy

TOTAL: 3000



Day 3

WARM UP: 500, Every 4th length non-free

10-minute swim, focus on different aspect of your stroke every 6 lengths

5x(4x25) @ :35-:40 **Descend** 1-4 within set, **Descend** SC 1-4 within set

WARM DOWN: 300, every 3rd length non-free

Day 4

Olympic Distance 1500 Yards or 1300 Meters



Week 8**BEGIN SPEED****Day 1**

WARM UP: 300 Easy

12X50's

#1-4) **Descend SC**

#5-8) **Descend** Time

#9-12) **Free Golf** Rest= :15

300 Breathe every 3-5-7 strokes by 100

12x25's @: 35 Easy/**Build**/Easy/Fast by 25.

WARM DOWN: 300 Back/Free

TOTAL: 1800

Day 2

WARM UP: 4x100's @ cruise +:20 Choice

DRILL: 8x75's

Odds: Kick/**FT Drag**/Swim

Evens: **K/Fist**/Swim

MAIN: 1x50 1x100

1x50 1x200

1x50 1x300

1x50 1x400

1x50 1x500

50's: All hard @ cruise +:20

Long swims: moderate @ cruise +:10 Count Strokes every 4 lengths

2x200's: #1) Breathe on weaker side only #2) **SC**-2 by 50

WARM DOWN: 300 **Ascend** throughout (start out 80% and drop down effort)

TOTAL: 3450



Day 3

WARM UP: 300 Back/Free alternate by 25

DRILL: 4x125's

Done as: 50 Kick/50 4 strokes Back, 4 strokes Free/25 Free Rest= :20

MAIN: 4x400's

#1) 400 Straight

#2) 2x200's @ **cruise** +:05

#3) 4x100's @ **cruise**

#4) 8X50s Rest=:15

Set #4, alternate Back and Free by 50's. Pay attention to hip rotation.

STROKE COUNT: 25+50+75+100+100+75+50+25 Rest= :15-:20 btw swims

Go faster on the way up and slower on the way down. Count strokes and adjust accordingly.

WARM DOWN: 200 Back/Free

TOTAL: 3100



Week 9**Day 1**

WARM UP: 200 Choice

DRILL: 6X100's

25 Kick/50 **Fists**/25 Build, Rest= :20

MAIN: 15x100's Rest= :20

Focus on 1 aspect of your stroke every 3 100's.

WARM DOWN: 100 Easy

TOTAL: 2400

Day 2

WARM UP: 2x(3x100)

Set #1) Easy, Rest= :15

Set #2) **Build @ Cruise** +:10

DRILL: 4x150's:

50 kick/50 6 kicks per stroke/50 Swim Rest= :15

MAIN: 4x(3x50's + 2x150)

50's: Hard @ Cruise +:20 or Rest= :30

150's:

#1) **SC**,

#2) SC-2

Rest= :20

WARM DOWN: 6x50's **Ascend**, keep **SC** consistent

TOTAL: 3300 yards



Day 3

WARM UP: 400 Choice

8x50's

Odds: Non-Free, Drill/Swim

Evens: Free, Drill/Swim Rest=:15

4x50's Kick, Descend 1-4 Rest =:15

100 Easy

MAIN: 3x(4x150's)

#1-3) 50 Free breathe every 3 strokes/100 Free Normal.

Descend 1-3 @ cruise +:10

#4) 150 Easy Choice Rest= :30

WARM DOWN: 4x50's **Ascending**, Rest= :20

TOTAL: 3100 Yards



Week 10**BEGIN TAPER****Day 1**

WARM UP: 300 Choice

DRILL: 2x150's 50 Drill (your choice)/100 Swim
6x50's

#1,2) Kick, **Descend**

#3,4) Swim, **Descend** Stoke Count

#5,6) Swim, Descend time

MAIN: *(lots of speed changes for this distance freestyle set designed for triathletes and open water swimmers)*

2 x 25

- Free, sprint and sight (S&S)
- On cruise or Rest= :05

2 x 75

- 25 S&S / 50 moderate swim
- On **cruise** or Rest= :10

2 x 125

- Moderate effort, freestyle swim
- Breathing every 3rd stroke
- On cruise + :05 or Rest= :15

2 x 400

- Freestyle swim, **descend** 1->2
- On cruise + :10 or Rest= :30

2 x 125

- #1: FAST on cruise - :05 or Rest= :05
- #2: Moderate on cruise + :15 or Rest= :20

2 x 75

- #1: FAST on cruise - :05 or Rest= :05
- #2: Moderate on cruise + :15 or Rest= :20

2 x 25

- #1: FAST on cruise - :05 or Rest= :05
- #2: Moderate

WARM DOWN: 8X25's

Odds: Free, breathing every 3 strokes

Evens: Easy Backstroke

TOTAL: 2800



Day 2

WARM UP: 2x300

#1) Free, Easy, focus on good body rotation

#2) Build by 100's

DRILL: 4x100

25 Left arm only/25 Right arm only/50 Swim Rest= :10

MAIN: 1x600 **Build** by 200's Rest 1:30

8x50's

Odds: **SC**-1 @ cruise +:10

Evens: **Descend** 1-4 @ cruise +:05

1x400 Free 85% effort

8x25's Kick/Swim (alternate by 25's)

Descend swims. Rest= :10

WARMDOWN: 150 Back/Free by 25's

TOTAL: 2750

Day 3

WARM UP: 2x(200 Free/100 Non-free)

DRILL: 10x50's

Odds: 25 Fist/25 **SC**

Evens: **Descend**

Rest= :20

MAIN: 4x300's

#1) 6x50's@cruise +:05

#2) 3x100's @ cruise

#3) 300 **DPS** Rest= :40 #4) 300 90% effort

6x50's **Free Golf**, Rest = :20

WARM DOWN: 200 **DPS**

TOTAL: 2800



Week 11**Day 1**

WARM UP: 500, every 4th length backstroke

DRILL 2x200's:

#1) SC-2 per 50

#2) Build

MAIN: 2x600's

#1) Concentrate on 1 aspect of your stroke every 6 lengths

#2) Build to 85% Rest= 1:00

WARM DOWN: 200 Easy

TOTAL: 2300

Day 2

WARM UP: 400 Choice

DRILL: 400:

4x[(25 Kick/75 **DPS** (count strokes)]

MAIN: 2x800's

#1) Maintain steady pace

#2) Shift Gears, Count strokes and go faster

WARM DOWN: 200 Breathe every 3

TOTAL: 2600



Day 3

WARM UP: 300 Choice

DRILL: 3x100

#1) Kick

#2) **Fists**

#3) **Build**

MAIN: 4x(4x50's + 200)

4x50's: Hard @ Cruise +:30

200's: Easy Rest= :30

WARM DOWN: 300 Breathe every 3 strokes on odd lengths

Total: 2300

Day 4

1000 at Race Pace



Week 12**Day 1**

WARMUP: 300 Choice

DRILL: 400 **SC**-2 per 100

MAIN: 2x600

#1) **DPS**

#2) Race pace Rest= 1:30

WARMDOWN: 200 Easy

TOTAL: 2100

Day 2

WARM UP: 300 **DPS**

DRILL/MAIN: 3x(200 SC + 4x50's **Descend** 1-4)

200's: Rest= :30

50's: @ **cruise** +:10

8x25's Easy/Build/Easy/Fast, Repeat @ :30-:45

WARMDOWN: 150 Back/Free by 25

TOTAL: 2050

Day 3

WARM UP: 600 **SC**

12x25's 12.5 yards sprint, 12.5 yards easy @ :30-:45

WARM DOWN: 600 **SC**

TOTAL: 1500

Day 4

RACE TIME! Olympic Distance 1.5K Swim



Glossary

@= "on", i.e. 10x100's @ 2:00 means 10 100's on the 2:00 interval

SC= Stroke Count

spl = Strokes per length

ST = Strokes

DPS = Distance per Stroke, try to maximize

K = Kick

Build= build within the swim, i.e. 200 Free Build means start off easy, and get faster throughout the 200.

Cruise = an interval you can make 100's free on comfortably with about 10-15 seconds rest. Example: 5x100's on 1:45.

Descend= Get faster throughout the set. Example, 4x100 Descend 1-4. #1 would be relatively easy, #4 is HARD.

Ascend= The opposite of Descend- ease up throughout the set.

Free Golf = Count your strokes and check your time after each swim. Add the 2 numbers and that's your golf score. Try to "beat" your score on each one by lowering that number.

I.M. = Fly, Back, Breast, Free in that order.





Shark Fin Drill

I.M. Switch = 50's alternating Fly/Back, Back/Breast, Breast/Free, Free/Fly

Max HR= Maximum Heart Rate. To determine your Max HR, take $180 - \text{your age} + 5$. For example, Mine would be $180 - 32 + 5 = 153$

Taper= The period before your race where workouts ease up and you begin to rest for your event. Intensity and distance will both decrease, with longer swims added in.

Drills:

$\frac{3}{4}$ Catchup- taking strokes about $\frac{3}{4}$ of the way to touching your other hand before each recovery

6K/Stroke- For each stroke (one arm) take 6 kicks. This is reinforcing the rotation from side to side in freestyle.

Fists- Swim freestyle with your hands in fists

Finger Tip Drag – Drag your finger tips through the water on recovery. You will need a bent elbow to do this properly.

Shark Fin- While kicking on your side, extend one arm. Slowly point elbow of trailing arm up towards sky, hand almost touching your side, making a "shark fin." Slide hand back down, breathe, repeat.



Triathlon Swim Workouts : Half Ironman Triathlon (Long Course) 12-Week Plan

Week 1

Day 1

WARM UP:

300 Free

DRILL/MAIN:

200 Free

1) Kick/Swim by 25's. Swim with fists only.

25+50+75+100 Free

100+75+50+25 Free

SC throughout. Just note **SC** and Find your **spl** range.

Rest= 10-15 seconds between swims.

4x(5x25's) Free

Take your lowest spl on previous swim

Start 1st 25 trying to hit that **SC**

Add 1 **spl** for one set, then subtract 1 **spl** for the next set. Repeat.

Eg. 14-15-16-17-18 **spl**

12x50's Free

1) SC 2-12) Try to hit the # of strokes you got in #1 on each 50.

Rest: 10-15 seconds between 50's

WARM DOWN:

100 Back/Free by 25's. Free breath every 3 strokes.

TOTAL: 2200 Yards



Day 2

WARM UP:

300 Free, breathe every 3 strokes

DRILL/MAIN:

6x75's Free

K/Finger Tip Drag/DPS

Rest : 15 btw 75's

25+50+75+100

100+75+50+25

All Free

Count strokes, first 25 is benchmark. Remember that number and try to hit that number or lower on each length. Notice how changes to your stroke affects **spl**.

Rest : 15 btw swims

8x75's Free

#1) **SC**

#2-8) Do not go over the # of strokes you got on #1

Rest 10-15 seconds between 75's

5x100's Free

1,2 & 4,5) **Cruise**

3) **SC**. Try to keep your **spl** in the lower range.

WARM DOWN:

150 Free, breathe only on your weaker side on odd lengths

TOTAL: 2500 Yards



Day 3

WARM UP: 300 alternating Back/Free by 25's

DRILL: 7x100's

Odds: 25 Fists Only/25 Free

Evens: 4 strokes Back/4 strokes Free by 25's

Rest :15 between each 100

MAIN: 2x(3x50's kick + 3x100's Free/Back by 25 + 3x75 Free **SC-1**)

WARM DOWN: 6x50's **Free Golf** @ 1:00-1:20 or Rest= :30

TOTAL: 2625 Yards



Week 2**Day 1**

WARM UP: 500 Free

DRILL: 12x50's

Odds: **Shark Fin Drill**

Evens: **DPS** Rest= :15

6x100's Free

#1) **SC**

#2-6) Keep **SC** the same or lower Rest= :20

MAIN: 400+300+200+100 @ **Cruise** interval **SC** on 300 and 200 and keep **SC** low

WARM DOWN: 150 Breathe every 3 strokes

TOTAL: 2850

Day 2

WARM UP: 2x200's

#1) Free

#2) Breast/Free by 25

DRILL: 10x50's **3/4 Catchup Drill**. Rest= :15

4x200's

#1) **SC**

#2-4) Keep the same **SC** or lower. Count by 25's and average OR count for the entire 200

MAIN: 2x(4x100+4x50)

100's: **Cruise**

50's: **SC-1**

WARM DOWN: 200 Breathe every 3 strokes

TOTAL: 3100 Yards



Day 3

WARM UP: 8x75's

Odds: Breathe every 3-5-3 strokes by 25's. Rest= :15

Evens: Non-Free, your choice

DRILL: 8x50's **IM Switch** Rest= :15

800 Free **SC** on 1st 100, maintain SC throughout 800

MAIN: 2x(300 Free + 3x100 **I.M.**)

300's: Moderate

100's: Hard @ **cruise** +:15

WARMDOWN: 200 Easy

TOTAL: 3200 Yards



Week 3**Day 1**

WARM UP: 500 Free, every 4th length Kick

DRILL: 400 Free, alternate 25 **Fist**/25 Free Swim

4x50's **Free Golf** @ 1:00-1:20 OR Rest= :30

MAIN: 3x(4x100)

Set #1) **Descend** 1-4 @ Cruise + :10,

Set #2) **SC**-1 @ Rest= :30,

Set #3 **Descend** 1-4 @ **Cruise** - :05

BREATH CONTROL (Hypoxic Training): 400 Free breathe every 3-5-5-3 by 100

5x50's, limit # of breaths to 6, 5, 4, 3, 2 by 50

WARM DOWN: 200 Easy, long strokes

Total: 3450 Yards

Day 2

WARM UP: 500, every 4th length backstroke

DRILL: 6x125's

done as 50K/50 6 kicks per stroke/25 Swim **DPS**

Odds: Free

Evens: Back

MAIN: 3x(300 + 4x50's)

300's: Moderate, Rest= :30

50's: @ **Cruise** interval

KICK/SWIM: 10x50's Kick/Swim @ :55-1:10 OR Rest= :10

Alternate Free/Back by 50's

WARM DOWN: 5x50's Start at 80%, decrease effort by 20% each 50

TOTAL: 3500 Yards



Day 3

WARM UP: 5x100's @ Cruise +:15 **BUILD**

DRILL: 16x50's

1) SC,

2-16) Keep **SC** the same or lower as #1 Rest= :15

MAIN: 2x(2x150 + 4x100)

Keep all swims at **Max HR** or lower. Rest= :20 for the 150's, :15 for the 100's

BREATH CONTROL: 3x200's

1,2) Breathe ev 3-5-7-3 ST by 50

3) SC-2 by 50

WARM DOWN: 250 Breathe on weak side only on odd lengths

TOTAL: 3550 Yards



Week 4

(recovery week)

Day 1

WARM UP: 500 Choice

DRILL: 8x100's **SC**-1 per 25 Rest= :20

MAIN: 3x400's Free **Descend** 1-3. Keep **SC** consistent. Rest= :45

WARM DOWN: 200 Breathe weak side only on odd lengths

Total: 2700 Yards

Day 2

WARM UP: 200 **I.M. K**/Swim by 25's + 400 Free

DRILL: 25+50+75+100+100+75+50+25 SC, pay attention to technique.

Are you looking at the bottom of the pool with just a little of the back of your head out of the water? Is your stroke LONG in the water, and are you getting distance out of each stroke? Are your hips rotating? Rest= :15 btw swims

4x(5x25) Start with lowest SC in previous set, add 1 stroke per 25 within set.

Then go back down and repeat.

MAIN: 4x200

1,2) **SC**, moderate pace

3,4) **DPS**, hard Rest= :45

WARM DOWN: 200 breathe 3-5-5-3 Strokes by 50. Rest= :30

TOTAL: 2600 Yards



Day 3

WARM UP: 600 Free, every 3rd length Kick on your side

DRILL: 6x75's

Odds: 50 Fist, 25 Free

Evens: SC-1 per 25 Rest= :15

MAIN: 15x100's @ **Cruise**

WARM DOWN: 200, Breathe weak side on odd lengths

TOTAL: 2750

Day 4

LONG DISTANCE SWIM 2100 Yards OR 1950 Meters

Pay attention to SC and technique

Do not worry about speed



*Week 5***Day 1**

WARM UP: 500, every 4th length non-free

DRILL: 10x50's Drill/Swim by 25.

Odds: **Fist**

Evens: **6K/Stroke** Rest= :15

5x150

1)**SC**

2-5) Keep **SC** the same or lower than #1 Rest= :30

MAIN: 3x300's **Descend** 1-3 @ **cruise** +:05

WARM DOWN: 6x50's **Ascend** Rest= :20

TOTAL: 2950 Yards

Day 2

WARM UP: 2x(200+4x25's)

Round 1)Free

Round 2) Back (or back/free)

KICK: 10x50's 2 of each stroke (fly, back, breast, 4 free)

Odds: Easy

Evens: Fast

MAIN: 3x(4x100+1x50)

100's: Set #1) @ **cruise** Set #2) **SC**-1 Rest= :30

Set #3) @ **cruise**.

50's: All easy @ 1:00 or :25 rest

BREATH CONTROL: 400 Free, breathe every 3-5-7-3 by 100

SPRINT: 10x25's Easy/Fast by 25 @:35

WARM DOWN: 200 Easy

TOTAL: 3300 Yards



Day 3

WARM UP: 500 Free every 4th lap **SC**

DRILL: 8x100's

Odds: **Finger Tip Drag Drill**/Free by 25's.

Evens: **Fist**/Free

Rest= :20

MAIN: 3x(2x200 + 4x50)

200's: @**cruise** 50's: **cruise** + :05, descend Rest :30 btw sets

STROKE COUNT: 8x50's **Free Golf** @ 1:00-1:15

WARM DOWN: 300 Breathe every 3 or 5 strokes

TOTAL: 3900 Yards



Week 6**Day 1**

WARM UP: 6x100's

#1,2) @cruise + :20

#3,4) @cruise +:15

#5,6) @cruise +:10

DRILL: 10x75's Kick/Drill/Swim by 25's.

Drill= high elbow Free.

Rest= :15

MAIN: 1x50 @ 1:00 + 1x50 @ **Cruise**

1x50 @ 1:00 + 2x50's @ Cruise

1x50 @ 1:00 + 3x50's @ Cruise

1x50 @ 1:00 + 4x50's @ Cruise

1x50 @ 1:00 + 4x50's @ Cruise +:05

1x50 @ 1:00 + 3x50's @ Cruise +:05

1x50 @ 1:00 + 2x50's @ Cruise +:05

1x50 @ 1:00 + 1x50 @ Cruise +:05

50's on 1:00-1:15: **SC, DPS**

50's on interval: Hard, Free on the way up, strokes on the way down

500 Free Breathe every 3-5-7-5-3 by 100

WARMDOWN: 200 Back/Free by 25

TOTAL: 3450 Yards

Day 2

WARM UP: 400 (50 Free, 50 Back, 50 Breast, 50 Free, repeat)

6x50's Back/Free, Breast/Free, Free

MAIN: 3x100's Free, Moderate pace @ cruise +:10

6x50's Kick, Choice, **Descend** 1-3, 4-6 @:10 rest

3x100's Free @ cruise +:05



4x75's Back/Breast/Free by 25. Rest= :15

3x100's Free@ **cruise**

3x100's Non-Free or **I.M.** @ **Cruise** + :20

DRILL: 8x50's **Free Golf**

WARM DOWN: 300 Free, Breathe every 3-5-3 by 100

TOTAL: 3200 Yards

Day 3

WARM UP: 400 Choice

DRILL: 6x50's Fist

6x75's 25 $\frac{3}{4}$ **Catchup**, 50 **DPS**

6x25's Descend 1-3, 4-6

Rest= Your Choice

MAIN:

1x175 1x225

1x175 2x225

1x175 3x225

175's: Moderate, 1:00 rest. Count Strokes, keep consistent

225's: @200 Cruise pace +:20

BREATH CONTROL: 5x100's breathe every 3-5-3-7 by 25. Rest= :20

WARM DOWN: 200 Back/Free

TOTAL: 3550



Week 7**Day 1**

WARM UP: 400 Choice

DRILL: 8x50's

Odds: 25K/25 Free Drill (your choice)

Evens: 25 Drill/25 **Build**

4x(4x25's) Fly, back, breast, free by set of 25's. 1 Easy, 2 Moderate, 1 Hard.

Rest= :10

MAIN: 3x(1x300, 1x100)

300's: **I.M.** (3 lengths each stroke) Rest= :30

100's: #1) Kick. Rest= :10

#2) Free, hard. Rest= :30

WARM DOWN: 300

TOTAL: 3000

Day 2

WARM UP: 3x200's

#1)**K**/Swim

#2)Swim, **build**

#3) **SC**-1 per 50

DRILL: 2x300's Free, Count strokes by 50. Decrease **SC** on 2nd 300.

MAIN: 3x(5x100)

Set #1)@ **cruise** +:10

#2) @ cruise +:05

#3)@ cruise

200 Easy Swim

6x125's Free. 100 **Fist**, 25 Swim. Rest= :25

WARM DOWN: 200 Easy

TOTAL: 3850



Day 3

WARM UP: 600, Every 4th length non-free

12-minute swim, focus on different aspect of your stroke every 6 lengths.

5x(4x25's) @ :35-:45

Descend 1-4 within set

Descend SC 1-4 within set

WARM DOWN: 300, every 3rd length non-free

Day 4

LONG DISTANCE SWIM 2100 Yards OR 1950 Meters

Try adding some speed this time while you pay attention to technique!



Week 8**BEGIN SPEED****Day 1**

WARM UP: 400 Easy

16x50's: #1-4) **Descend** SC #5-8) **Descend** time #9-16) **Free Golf**, Rest=:15-:20.

400 Breathe every 3-5-7 strokes by 100

16x25's @ :35-:40. Easy/**Build**/Easy/Fast by 25.

WARM DOWN: 300 Back/Free

TOTAL: 2300 Yards

Day 2

WARM UP: 5x100's @ **cruise** +:20 Choice

DRILL: 8x75's Odds: **K/FT Drag**/Swim Evens: **K/Fist**/Swim

MAIN: 1x50 1x100

1x50 1x200

1x50 1x300

1x50 1x400

1x50 1x500

1x50 1x600

50's: All hard @ **cruise** +:20

Long swims: moderate @ **cruise** +:10 Count strokes every 4 lengths

BONUS: 3x200's:

#1) Breathe on weaker side only

#2)SC-2 per 50

#3) Breathe every 3-5-7-3 by 50

WARM DOWN: 300 **Ascend** throughout (start out at 80% and drop down effort)

TOTAL: 4400 Yards



Day 3

WARM UP: 500 Back/Free alternate by 25

DRILL: 6x125's, 50 **K**/50 4 **ST** Back, 4 **ST** Free/25 Free

MAIN: 5x400's

#1) 400 Straight

#2) 2x200's @ **cruise** + :05

#3) 4x100's @ **cruise**

#4) 8x50's Rest=:15

#5) Straight, moderate pace

STROKE COUNT: 25+50+75+100+100+75+50+25 Rest=:15-:20 btw swims.

Go faster on each swim on the way up, slower on the way down. Count strokes and adjust accordingly.

WARM DOWN: 200 Back/Free, focus on hip rotation

TOTAL: 3950 Yards



*Week 9***Day 1**

WARM UP: 300 Choice

DRILL: 8x100's 25**K**/50 **Fist**/25 Build. Rest= :20

MAIN: 21x100's Rest=:20

Focus on 1 aspect of your stroke every 3 100's.

WARM DOWN: 100 Easy

TOTAL: 3300 Yards

Day 2

WARM UP: 3x(3x100)

Set #1) Easy, Rest= :15

Set #2) Moderate @ **Cruise** +:15

Set #3) Build @ **Cruise** + :10

DRILL: 5x150's: 50 **K**/50 **6K per ST**/50 Swim Rest= :15

MAIN: 4x(4x50's + 2x150's)

50's: Hard @ **Cruise** + :20 or Rest= :30

150's: #1) **SC**

#2) **SC**-2 Rest= :20

WARM DOWN: 6x50's Ascend, keep **SC** consistent

TOTAL: 3950 Yards



Day 3

WARM UP: 600 Choice

10x50's

Odds: Non-Free, Drill/Swim by 25's

Evens: Free, Drill/Swim by 25's.

Rest= :15

8x50's Kick, **Descend** 1-3, 4-6 Rest= :15

100 Easy Swim

MAIN: 3x(4x150)

#1-3) 50 Free breathe every 3 ST/100 Free Normal. **Descend** 1-3 @ Cruise
+:10

#4) 150 Easy, your choice. Rest= :20

BREATH CONTROL: 5x50's, limit your breaths to 6, 5, 4, 3, 2 per 50. Rest=
:15

WARM DOWN: 6x50's **Ascend**, Rest= :20

TOTAL: 3400 Yards



Week 10**BEGIN TAPER****Day 1**

WARM UP: 400 Choice

DRILL: 3x150's. 50 Drill (your choice)/100 Swim

8x50's:

#1,2) Kick, **Descend**

#3,4) Swim, **Descend SC**,

#5-8) Swim, **Descend** time

MAIN: *(lots of speed changes in this distance freestyle set designed for triathletes and open water swimmers)*

2 x 25

- Free, sprint and sight (S&S)
- On **cruise** or Rest= :05

2 x 75

- 25 S&S / 50 moderate swim
- On **cruise** or Rest= :10

2 x 125

- Moderate effort, freestyle swim
- Breathing every 3rd stroke
- On **cruise** + :05 or Rest= :15

2 x 400

- Freestyle swim, **descend** 1->2
- On **cruise** + :10 or Rest= :30

2 x 125

- #1: FAST on **cruise** - :05 or Rest= :05
- #2: Moderate on **cruise** + :15 or Rest= :20

2 x 75

- #1: FAST on **cruise** - :05 or Rest= :05
- #2: Moderate on **cruise** + :15 or Rest= :20

2 x 25

- #1: FAST on **cruise** - :05 or Rest= :05
- #2: Moderate

WARM DOWN: 10x25's Odds: Free, breathing every 3 **ST**. Evens: Easy Backstroke.

TOTAL: 3200 Yards



Day 2

WARM UP: 3x300's

#1) Free, Easy, focus on good body rotation

#2) **DPS**

#3) Build by 100's

DRILL: 5x100's 25 Left arm only/25 Right arm only/50 Swim. Rest= :10

MAIN: 1x800 Build by 200's. Rest= 1:30

8x50's

Odds: **SC-1 @ Cruise** +:10

Evens: **Descend** 1-4 @ cruise +05

1x600 Free 85% effort

8x25's

Odds: Kick

Evens: Swim **Descend** the swims. Rest= :10

WARMDOWN: 200 Back/Free by 25's

TOTAL: 3600 Yards

Day 3

WARM UP: 3x(200 Free/100 Non-Free)

DRILL: 12x50's

Odds: 25 **Fist**/25 **SC**

Evens: **Descend** (2, 4, 6, 8, 10, 12)

Rest= :20

MAIN: 4x300's

#1) 6x50's @ **cruise** +:05

#2) 3x100's @ **cruise**

#3) 300 **DPS**, Rest= :40

#4) 300 90% effort

6x50's **Free Golf**, Rest= :20

WARM DOWN: 200 **DPS**

TOTAL: 3200 Yards



Week 11**Day 1**

WARM UP: 600, every 4th length backstroke

DRILL: 3x200's:

#1) **SC**-2 per 50

#2) **DPS**

#3) **Build**

MAIN: 2x800's:

#1) Concentrate on 1 aspect of your stroke every 8 lengths

#2) Build to 85% Rest= 1:15

WARM DOWN: 200 Back/Free by 25's

TOTAL: 3000 Yards

Day 2

WARM UP: 500 Choice

DRILL: 400 done as 4x(25**K**/75 **DPS**, count strokes)

MAIN: 2x1000's

#1) Maintain steady pace

#2) Shift gears, count strokes and go faster

WARM DOWN: 200 Free, breathe every 3 **ST**

TOTAL: 3100 Yards



Day 3

WARM UP: 400 Choice

DRILL: 4x100's

#1) Kick

#2) Fist

#3) DPS

#4) Build

MAIN: 4x(4x50's + 200)

4x50's: Hard @ Cruise + :30

200's: Easy Rest= :30

WARM DOWN: 300, breathe every 3 strokes on odd lengths

TOTAL: 2700 Yards

Day 4

1500 Yards or 1300 Meters at Race Pace



Week 12**Day 1**

WARMUP: 400 Choice

DRILL 500 **SC**-2 per 100

MAIN: 2x800's

#1) **DPS**,

#2) Race Pace Rest= 1:30

WARMDOWN: 200 Easy

TOTAL: 2700

Day 2

WARM UP: 400 **DPS**

DRILL/MAIN: 4x (200 **SC** + 4x50's **Descend** 1-4)

200's: Rest= :30

50's: @ **Cruise** +:10

SPRINT: 8x25's Easy/**Build**/Easy/Fast, Repeat @ :30-:45 interval

WARMDOWN: 200 Back/Free by 25

TOTAL: 2400

Day 3

WARM UP: 800 **SC** (just keep track of your stroke count per length- you don't have to count throughout, but make sure you are counting every 4 lengths or so and staying on track.)

16x25's done as 12.5 yards spring, 12.5 yards easy @ :30-:45 interval

WARM DOWN: 800 **SC**- same as 800 above. Nice and easy, long strokes!

TOTAL: 2000

Day 4

RACE TIME! 1.2 mile Half Ironman Swim



Triathlon Swim Workouts : Ironman Triathlon (Long Course), 12-Week Plan

(WARNING: If you are training for your first triathlon, I HIGHLY recommend starting with a Sprint or Olympic Distance race. You might survive a Half Ironman if you are already in top shape, but definitely do not attempt an Ironman distance race your first time!)

Week 1

Day 1

WARM UP:

300 Free

DRILL/MAIN:

200 Free

1) Kick/Swim by 25's. Swim with fists only.

25+50+75+100 Free

100+75+50+25 Free

SC throughout. Just note **SC** and Find your **spl** range.

Rest= 10-15 seconds between swims.

4x(5x25's) Free

Take your lowest spl on previous swim

Start 1st 25 trying to hit that **SC**

Add 1 **spl** for one set, then subtract 1 **spl** for the next set. Repeat. Eg. 14-

15-16-17-18 **spl**

12x50's Free

1) SC 2-12) Try to hit the # of strokes you got in #1 on each 50.

Rest: 10-15 seconds between 50's

WARM DOWN:

100 Back/Free by 25's. Free breath every 3 strokes.

TOTAL: 2200 Yards



Day 2

WARM UP:

300 Free, breathe every 3 strokes

DRILL/MAIN:

8x75's Free

K/Finger Tip Drag/DPS

Rest : 15 btw 75's

25+50+75+100

100+75+50+25

All Free

SC, first 25 is benchmark. Remember that number and try to hit that number or lower on each length. Notice how changes to your stroke affects **spl**.

Rest : 15 btw swims

8x75's Free

1) **SC** 2-8) Do not go over the # of strokes you got on #1

Rest 10-15 seconds between 75's

5x100's Free

1,2 & 4,5) **Cruise**

3) **SC**. Try to keep your **spl** in the lower range.

WARM DOWN:

150 Free, breathe only on your weaker side on odd lengths

TOTAL: 2500 Yards

Day 3

WARM UP: 300 alternating Back/Free by 25's

DRILL: 8x100's Odds: 25 Fists Only/25 Free Evens: 4 **ST** Back/4 ST Free by 25's Rest :15 between each 100

MAIN: 2x(3x50's + K 3x100's Free/Back by 25+3x75 Free SC-1)

WARM DOWN: 6x50's **Free Golf** @ 1:00-1:20 or Rest= :30

TOTAL: 2725 Yards

Total for week for IRONMAN: 7575



*Week 2***Day 1**

WARM UP: 500 Free

DRILL: 12x50's Odds: **Shark Fin Drill** Evens: **DPS** Rest= :15

6x100's Free 1) **SC** 2-6) Keep **SC** the same or lower Rest= :20

MAIN: 400+300+200+100 @ **Cruise** interval **SC** on 300 and 200 and keep **SC** low

WARM DOWN: 150 Breathe every 3 strokes

TOTAL: 2850

Day 2

WARM UP: 2x200's 1) Free 2) Breast/Free by 25

DRILL: 10x50's **3/4 Catchup Drill**. Rest= :15

4x200's 1) **SC** 2-4) Keep the same **SC** or lower. Count by 25's and average
OR count for the entire 200

MAIN: 2x(4x100+4x50)

100's: **Cruise**

50's: **SC-1**

WARM DOWN: 200 Breathe every 3 strokes

TOTAL: 3100 Yards

Day 3

WARM UP: 8x75's Odds: Breathe every 3-5-3 strokes by 25's. Rest= :15

Evens: Non-Free, your choice

DRILL: 8x50's **IM Switch** Rest= :15

800 Free **SC** on 1st 100, maintain SC throughout 800

MAIN: 2x(300 Free + 3x100 **I.M.**) 300's: Moderate 100's: Hard @ **cruise**
+:15

WARMDOWN: 200 Easy

TOTAL: 3200 Yards

Total for IRONMAN: 9000



The Complete Guide to Triathlon Swimming

Week 3

Day 1

WARM UP: 500 Free, every 4th length Kick

DRILL: 400 Free, alternate 25 **Fist**/25 Free Swim

4x50's **Free Golf** @ 1:00-1:20 OR Rest= :30

MAIN: 3x(4x100) Set #1) **Descend** 1-4 @ Cruise + :10, Set #2) **SC-1** @

Rest= :30,

Set #3 **Descend** 1-4 @ **Cruise** - :05

BREATH CONTROL (Hypoxic Training): 400 Free breathe every 3-5-5-3 by 100

5x50's, limit # of breaths to 6, 5, 4, 3, 2 by 50

WARM DOWN: 200 Easy, long strokes

Total: 3450 Yards

Day 2

WARM UP: 500, every 4th length backstroke

DRILL: 6x125's 50K/50 6K per **ST**/25 Swim **DPS** Odds: Free Evens: Back

MAIN: 3x(300 + 4x50's) 300's: Moderate, Rest= :30 50's: @ **Cruise** interval

KICK/SWIM: 10x50's **K**/Swim @ :55-1:10 OR Rest= :10 Alternate Free/Back by 50's

WARM DOWN: 5x50's Start at 80%, decrease effort by 20% each 50

TOTAL: 3500 Yards

Day 3

WARM UP: 5x100's @ Cruise +:15 **BUILD**

DRILL: 16x50's 1) SC, 2-16) Keep **SC** the same or lower as #1 Rest= :15

MAIN: 2x(2x150 + 4x100) Keep all swims at **Max HR** or lower. Rest= :20 for the 150's, :15 for the 100's

BREATH CONTROL: 3x200's 1, 2) Breathe ev 3-5-7-3 ST by 50 3) SC-2 by 50

WARM DOWN: 250 Breathe on weak side only on odd lengths

TOTAL: 3550 Yards

Total for IRONMAN: 10000



Week 4

(recovery week)

Day 1

WARM UP: 500 Choice

DRILL: 8x100's **SC**-1 per 25 Rest= :20MAIN: 3x400's Free **Descend** 1-3. Keep **SC** consistent. Rest= :45

WARM DOWN: 200 Breathe weak side only on odd lengths

Total: 2700 Yards**Day 2**WARM UP: 200 **I.M. K**/Swim by 25's + 400 Free

DRILL: 25+50+75+100+100+75+50+25 SC, pay attention to technique.

Are you looking at the bottom of the pool with just a little of the back of your head out of the water? Is your stroke LONG in the water, and are you getting distance out of each stroke? Are your hips rotating? Rest= :15 btw swims

4x(5x25) Start with lowest SC in previous set, add 1 stroke per 25 within set.

Then go back down and repeat.

MAIN: 4x200 1,2) **SC**, moderate pace 3,4) **DPS**, hard Rest= :45

WARM DOWN: 200 breathe 3-5-5-3 ST by 50. Rest= :30

TOTAL: 2600 Yards

Day 3

WARM UP: 600 Free, every 3rd length Kick on your side

DRILL: 8x75's Odds: 50 Fist, 25 Free Evens: SC-1 per 25 Rest= :15

MAIN: 15x100's @ **Cruise**

WARM DOWN: 200, Breathe weak side on odd lengths

TOTAL: 2750

Day 4

LONG DISTANCE SWIM 2100 Yards OR 1950 Meters

Pay attention to SC and technique

Do not worry about speed

Total for IROMAN: 10300



Week 5**Day 1**

WARM UP: 500, every 4th length non-free

DRILL: 12x50's Drill/Swim by 25. Odds: **Fist** Evens: **6K/Stroke** Rest= :15

5x150 1)**SC** 2-5) Keep **SC** the same or lower than #1 Rest= :30

MAIN: 3x300's **Descend** 1-3 @ **cruise** +:05

WARM DOWN: 6x50's **Ascend** Rest= :20

TOTAL: 3050 Yards

Day 2

WARM UP: 2x(200+4x25's) Round 1)Free Round 2) Back (or back/free)

KICK: 10x50's 2 of each stroke (fly, back, breast, 4 free) Odds: Easy Evens:
Fast

MAIN: 3x(4x100+2x50) 100's: Set #1) @ **cruise** Set #2) **SC**-1 Rest= :30

Set #3) @ **cruise**. 50's: All easy @ 1:00 or :25 rest

BREATH CONTROL: 400 Free, breathe every 3-5-7-3 by 100

SPRINT: 10x25's Easy/Fast by 25 @:35

WARM DOWN: 200 Easy

TOTAL: 3450 Yards

Day 3

WARM UP: 500 Free every 4th lap **SC**

DRILL: 8x100's Odds: **Finger Tip Drag Drill**/Free by 25's. Evens: **Fist**/Free
Rest= :20

MAIN: 3x(2x200 + 4x50) 200's: @**cruise** 50's: **cruise** + :05, descend Rest
:30 btw sets

STROKE COUNT: 10x50's **Free Golf** @ 1:00-1:15

WARM DOWN: 300 Breathe every 3 or 5 **ST**

TOTAL: 4000 Yards

Total HALF Ironman: 10150

Total IRONMAN: 10500



Week 6**Day 1**

WARM UP: 8x100's #1, 2) @**cruise** + :20 #3,4) @**cruise** +:15 #5,6) @**cruise** +:10

DRILL: 10x75's Kick/Drill/Swim by 25's. Drill= high elbow Free. Rest= :15

MAIN: 1x50 @ 1:00 + 1x50 @ **Cruise**

1x50 @ 1:00 + 2x50's @ Cruise

1x50 @ 1:00 + 3x50's @ Cruise

1x50 @ 1:00 + 4x50's @ Cruise

1x50 @ 1:00 + 4x50's @ Cruise +:05

1x50 @ 1:00 + 3x50's @ Cruise +:05

1x50 @ 1:00 + 2x50's @ Cruise +:05

1x50 @ 1:00 + 1x50 @ Cruise +:05

50's on 1:00: SC, DPS

50's on interval: Hard, Free on the way up, **ST** on the way down

500 Free Breathe every 3-5-7-5-3 by 100

WARMDOWN: 200 Back/Free by 25

TOTAL: 3650 Yards

Day 2

WARM UP: 400 (50 Free, 50 Back, 50 Breast, 50 Free, repeat)

8x50's Back/Free, Breast/Free, Free

MAIN: 3x100's Free, Moderate pace @ cruise +:10

6x50's Kick, Choice, **Descend** 1-3, 4-6 @:10 rest

3x100's Free @ cruise +:05

6x75's Back/Breast/Free by 25. Rest= :15

3x100's Free@ **cruise**

3x100's Non-Free or **I.M.** @ **Cruise** + :20

DRILL: 8x50's **Free Golf**

WARM DOWN: 300 Free, Breathe every 3-5-3 by 100

TOTAL: 3450 Yards



Day 3

WARM UP: 400 Choice

DRILL: 6x50's Fist

8x75's 25 $\frac{3}{4}$ **Catchup**, 50 **DPS**

8x25's Descend 1-3, 4-6 Rest= Your Choice

MAIN:

1x175 1x225

1x175 2x225

1x175 3x225

175's: Moderate, 1:00 rest. Count Strokes, keep consistent

225's: @200 Cruise pace +:20

BREATH CONTROL: 6x100's breathe every 3-5-3-7 by 25. Rest= :20

WARM DOWN: 200 Back/Free

TOTAL: 3850

Total for HALF IRONMAN: 10200

Total for IRONMAN: 10950



Week 7**Day 1**

WARM UP: 400 Choice

DRILL: 10x50's Odds: 25K/25 Free Drill (your choice) Evens: 25 Drill/25 **Build**
5x(4x25's) Fly, back, breast, free by set of 25's. 1 Easy, 2 Moderate, 1 Hard.

Rest= :10

MAIN: 3x(1x300, 1x100)

300's: I.M. (3 lengths each stroke) Rest= :30

100's: #1) Kick. Rest= :10 #2) Free, hard. Rest= :30

WARM DOWN: 300

TOTAL: 3200

Day 2

WARM UP: 3x200's #1)K/Swim #2)Swim, **build** #3) **SC**-1 per 50

DRILL: 2x300's Free, Count strokes by 50. Decrease **SC** on 2nd 300.

MAIN: 3x(5x100) Set #1)@ **cruise** +:10 #2) @ cruise +:05 #3)@ cruise

200 Easy Swim

6x125's Free. 100 **Fist**, 25 Swim. Rest= :25

WARM DOWN: 200 Easy

TOTAL: 3850

Day 3

WARM UP: 600, Every 4th length non-free

12-minute swim, focus on different aspect of your stroke every 6 lengths.

6x(4x25's) @ :35-:45 **Descend** 1-4 within set.

WARM DOWN: 300, every 3rd length non-free

Day 4

LONG DISTANCE SWIM 2100 Yards OR 1950 Meters

Try adding some speed this time while you pay attention to technique!

Total for IRONMAN: approx. 10800



Week 8

BEGIN SPEED

Day 1

WARM UP: 500 Easy

20x50's: #1-5) **Descend** SC #6-10) **Descend** time #11-15) **Free Golf**,

Rest = :15-:20 #16-20) On Cruise Interval, just make interval

400 Breathe every 3-5-7 strokes by 100

20x25's @ :35-:40. Easy/**Build**/Easy/Fast by 25.

WARM DOWN: 300 Back/Free

TOTAL: 2700 Yards**Day 2**WARM UP: 6x100's @ **cruise** +:20 ChoiceDRILL: 10x75's Odds: **K/FT Drag**/Swim Evens: **K/Fist**/Swim

MAIN: 1x50 1x100

1x50 1x200

1x50 1x300

1x50 1x400

1x50 1x500

1x50 1x600

50's: All hard @ **cruise** +:20Long swims: moderate @ **cruise** +:10 Count strokes every 4 lengths

BONUS: 4x200's: #1) Breathe on weaker side only #2) SC-2 per 50 #3)

Breathe every 3-5-7-3 by 50 #4) Distance Per Stroke

WARM DOWN: 300 **Ascend** throughout (start out at 80% and drop down effort)**TOTAL: 4700 Yards**

Day 3

WARM UP: 500 Back/Free alternate by 25

DRILL: 8x125's, 50 **K**/50 4 **ST** Back, 4 **ST** Free/25 Free

MAIN: 6x400's #1) 400 Straight #2) 2x200's @ **cruise** + :05 #3) 4x100's @ **cruise**

#4) 8x50's Rest=:15 #5, 6) Straight, moderate pace

STROKE COUNT: 25+50+75+100+100+75+50+25 Rest=:15-:20 btw swims.

Go faster on each swim on the way up, slower on the way down. Count strokes and adjust accordingly.

WARM DOWN: 300 Back/Free, focus on hip rotation

TOTAL: 4650 Yards

Total for IRONMAN: 12050



Week 9**Day 1**

WARM UP: 300 Choice

DRILL: 10x100's 25K/50 **Fist**/25 Build. Rest= :20

MAIN: 21x100's Rest=:20

Focus on 1 aspect of your stroke every 3 100's.

WARM DOWN: 100 Easy

TOTAL: 3500 Yards

Day 2

WARM UP: 3x(3x100) Set #1) Easy, Rest= :15 Set #2) Moderate @ **Cruise** +:15
Set #3) Build @ **Cruise** + :10

DRILL: 6x150's: 50 K/50 **6K per ST**/50 Swim Rest= :15

MAIN: 4x(4x50's + 2x150's)

50's: Hard @ **Cruise** + :20 or Rest= :30

150's: #1) **SC**, #2) **SC-2** Rest= :20

WARM DOWN: 6x50's Ascend, keep **SC** consistent

TOTAL: 4100 Yards

Day 3

WARM UP: 600 Choice

10x50's Odds: Non-Free, Drill/Swim by 25's. Evens: Free, Drill/Swim by 25's.

Rest= :15

8x50's Kick, **Descend** 1-3, 4-6 Rest= :15

100 Easy Swim

MAIN: 3x(4x150)

#1-3) 50 Free breathe every 3 ST/100 Free Normal. **Descend** 1-3 @ Cruise +:10

#4) 150 Easy, your choice. Rest= :20

BREATH CONTROL: 5x50's, limit your breaths to 6, 5, 4, 3, 2 per 50. Rest= :15

WARM DOWN: 6x50's **Ascend**, Rest= :20

TOTAL: 3400 Yards

Total for IRONMAN: 11000



Week 10**BEGIN TAPER****Day 1**

WARM UP: 400 Choice

DRILL: 4x150's. 50 Drill (your choice)/100 Swim

8x50's: #1,2) Kick, **Descend** #3,4) Swim, **Descend** SC, #5-8) Swim,

Descend time

MAIN: *(lots of speed changes in this distance freestyle set designed for triathletes and open water swimmers)*

2 x 25

- Free, sprint and sight (S&S)
- On **cruise** or Rest = :05

2 x 75

- 25 S&S / 50 moderate swim
- On **cruise** or Rest = :10

2 x 125

- Moderate effort, freestyle swim
- Breathing every 3rd stroke
- On **cruise** + :05 or Rest = :15

2 x 400

- Freestyle swim, **descend** 1->2
- On **cruise** + :10 or Rest = :30

2 x 125

- #1: FAST on **cruise** - :05 or Rest = :05
- #2: Moderate on **cruise** + :15 or Rest = :20

2 x 75

- #1: FAST on **cruise** - :05 or Rest = :05
- #2: Moderate on **cruise** + :15 or Rest = :20

2 x 25

- #1: FAST on **cruise** - :05 or Rest = :05
- #2: Moderate

WARM DOWN: 10x25's Odds: Free, breathing every 3 **ST**. Evens: Easy Backstroke.

TOTAL: 3350 Yards



Day 2

WARM UP: 3x300's #1) Free, Easy, focus on good body rotation #2) **DPS**

#3) Build by 100's

DRILL: 6x100's 25 Left arm only/25 Right arm only/50 Swim. Rest= :10

MAIN: 1x800 Build by 200's. Rest= 1:30

8x50's Odds: SC-1 @ **Cruise** +:10 Evens: **Descend** 1-4 @ cruise +05

1x600 Free 85% effort

8x25's Odds: Kick Evens: Swim **Descend** the swims. Rest= :10

WARMDOWN: 200 Back/Free by 25's

TOTAL: 3700 Yards

Day 3

WARM UP: 3x(200 Free/100 Non-Free)

DRILL: 12x50's Odds: 25 **Fist**/25 **SC** Evens: **Descend** (2, 4, 6, 8, 10, 12)

Rest= :20

MAIN: 5x300's

#1) 6x50's @ **cruise** +:05 #2) 3x100's @ **cruise** #3) 300 **DPS**, Rest= :40

#4,5) 300 90-95% effort

6x50's **Free Golf**, Rest= :20

WARM DOWN: 200 **DPS**

TOTAL: 3500 Yards

TOTAL for IRONMAN: 10550



Week 11**Day 1**

WARM UP: 600, every 4th length backstroke

DRILL: 3x200's: #1) **SC**-2 per 50 #2) **DPS** #3) **Build**

MAIN: 2x800's: #1) Concentrate on 1 aspect of your stroke every 8 lengths

#2) Build to 85% Rest= 1:15

WARM DOWN: 200 Back/Free by 25's

TOTAL: 3000 Yards

Day 2

WARM UP: 500 Choice

DRILL: 600 done as 6x(25K/75 **DPS**, count strokes)

MAIN: 2x1000's #1) Maintain steady pace #2) Shift gears, count strokes and go faster

WARM DOWN: 200 Free, breathe every 3 **ST**

TOTAL: 3300 Yards

Day 3

WARM UP: 500 Choice

DRILL: 5x100's. #1) Kick #2) Fist #3) DPS #4) Build #5) Swim- 90% effort

MAIN: 4x(4x50's + 200)

4x50's: Hard @ Cruise + :30

200's: Easy Rest= :30

WARM DOWN: 300, breathe every 3 ST on odd lengths

TOTAL: 2900 Yards

Day 4

1500 Yards or 1300 Meters at Race Pace



Total for IRONMAN: 9200

Week 12

Day 1

WARMUP: 400 Choice

DRILL 500 **SC**-2 per 100

MAIN: 2x800's #1) **DPS**, #2) Race Pace Rest= 1:30

WARMDOWN: 200 Easy

TOTAL: 2700

Day 2

WARM UP: 400 **DPS**

DRILL/MAIN: 5x (200 **SC** + 4x50's **Descend** 1-4)

200's: Rest= :30

50's: @ **Cruise** +:10

SPRINT: 8x25's Easy/**Build**/Easy/Fast, Repeat @ :30-:45 interval

WARMDOWN: 200 Back/Free by 25

TOTAL: 2400

Day 3

WARM UP: 800 **SC**

16x25's done as 12.5 yards spring, 12.5 yards easy @ :30-:45 interval

WARM DOWN: 800 **SC**

TOTAL: 2000

Day 4

RACE TIME! 2.4 mile Ironman Swim

Total for IRONMAN: 6500 + Race



Codes:

@= "on", i.e. 10x100's @ 2:00 means 10 100's on the 2:00 interval

SC= Stroke Count

spl = Strokes per length

ST = Strokes

DPS = Distance per Stroke, try to maximize

K = Kick

Build= build within the swim, i.e. 200 Free Build means start off easy, and get faster throughout the 200.

Cruise = an interval you can make 100's free on comfortably with about 10-15 seconds rest. Example: 5x100's on 1:45.

Descend= Get faster throughout the set. Example, 4x100 Descend 1-4. #1 would be relatively easy, #4 is HARD.

Ascend= The opposite of Descend- ease up throughout the set.

Free Golf = Count your strokes and check your time after each swim. Add the 2 numbers and that's your golf score. Try to "beat" your score on each one by lowering that number.

I.M. = Fly, Back, Breast, Free in that order.

I.M. Switch = 50's alternating Fly/Back, Back/Breast, Breast/Free, Free/Fly

Max HR= Maximum Heart Rate. To determine your Max HR, take 180-your age+5. For example, Mine would be 180-32+5= 153.

Taper= The period before your race where workouts ease up and you begin to rest for your event. Intensity and distance will both decrease, with longer swims added in.



Drills:

$\frac{3}{4}$ Catchup- taking strokes about $\frac{3}{4}$ of the way to touching your other hand before each recovery

6K/Stroke- For each stroke (one arm) take 6 kicks. This is reinforcing the rotation from side to side in freestyle.

Fists- Swim freestyle with your hands in fists

Finger Tip Drag – Drag your finger tips through the water on recovery. You will need a bent elbow to do this properly.

Shark Fin- While kicking on your side, extend one arm. Slowly point elbow of trailing arm up towards sky, hand almost touching your side, making a “shark fin.” Slide hand back down, breathe, repeat.



Glossary:

@= "on", i.e. 10x100's @ 2:00 means 10 100's on the 2:00 interval

SC= Stroke Count

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Drills:

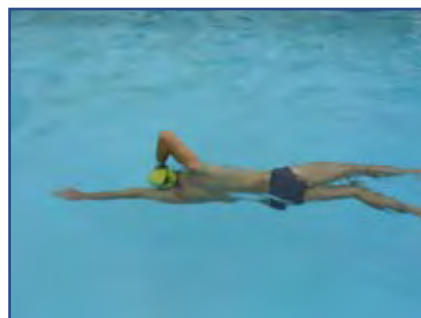
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Shark Fin Drill

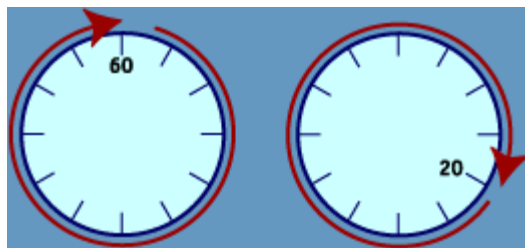


Appendix A : How to Read a Pace Clock

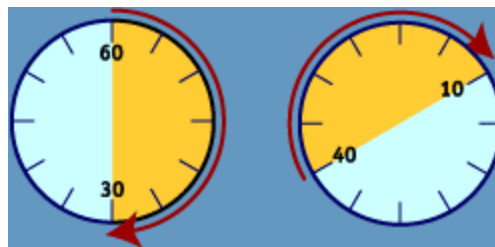
In masters swimming workouts and on the Tri Swim Coach training plans, pace clocks are often used for different types of sets, particularly on the main set. Often times beginners have a tough time reading the clock and understanding the terminology given by the coach giving out the workout. Here is a quick tutorial on how to read the clock and know what's going on at every workout!

By thinking of the clock face as a pie that has been cut it becomes easier to visualize segments and keep track of your swims and send-off times. Listed on this page are some basic intervals along with an explanation of how to figure your next repeat.

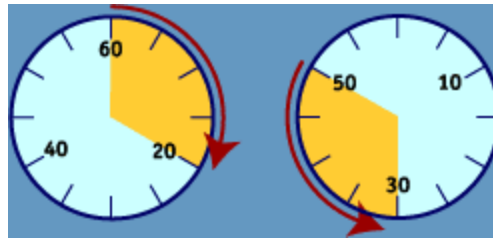
Intervals or pace that are exactly one minute (or two minutes or three minutes, etc.) are easy. Whatever number you leave the first repeat on, it will be this same number for all repeats in the entire set.



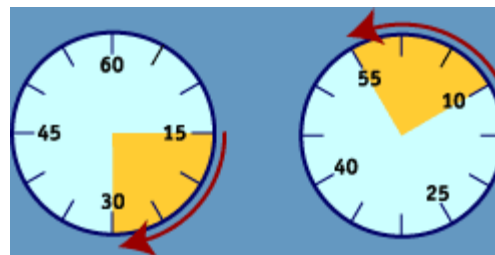
When using intervals or pace that are either 30 seconds (or 1:30, 2:30, etc.) you will always leave on one of two numbers. Those numbers will be directly across from one another on the pace clock.



Intervals of either 20 or 40 seconds slice the pie (pace clock) into thirds. This means you will always leave on one of three numbers. If your interval is 20 seconds (or 1:20, 2:20, etc.) your numbers will rotate clockwise. If your interval is 40 seconds (or 1:40, 2:40, etc.) your numbers will rotate counterclockwise.



Intervals of either 15 or 45 seconds will split the clock into fourths. Intervals ending in 15 seconds (1:15, 2:15, etc.) will have send-off numbers rotating clockwise. Send-off times in 45 second intervals (:45, 1:45, etc.) will have send-off numbers that rotate counter clockwise. In both cases, send-off numbers will alternate ending in 5 and 0.



Intervals of 10 seconds (1:10, 2:10, 3:10, etc.) and 50 seconds (:50, 1:50, 2:50, etc.) are easy. For 10 second intervals your next send-off always advance in a clockwise rotation. Send-offs for 50 second intervals always retract in a counterclockwise rotation.



Intervals of 5 seconds (1:05, 2:05, etc.) and 55 seconds (:55, 1:55, 2:55, etc.) will always advance and retract one number respectively.



Appendix B: Dryland Exercises

Exercise #5:



Start



Finish

Exercise #6:



Exercise #7:



Exercise #8:



Exercise #9:



Additional Strokes

1. **Fist Drill-** swim freestyle with fists closed. This will force you to use hip rotation and swim with proper form. Alternate 100 with fists, 100 regular freestyle.
2. **One Arm Drill-** Swim freestyle with one arm at your side, and the other arm doing full strokes. Rotate all the way through as if you were swimming normally. Breathe on the opposite side of whatever arm is working. Alternate 25 Right arm, 25 left arm.
3. **Three-Count Slide & Glide-** As you speed up the tempo of the body roll, you need to learn how to hold the body position. Starting on the side, count one thousand, two thousand, three thousand and then drag your hand up your side and place it over the extended arm in front. Pause and kick in a balanced position for the same three-count. Stroke with the other arm; roll to the side and kick for three counts in a balanced position. You must have three counts in each position.

