

# CAROLINA MULTISPORTS

## Onboarding Guide

Everything you need to know  
to kickstart your multisport journey



# Welcome to the Team!

Triathlon is one of the fastest growing sports worldwide. There are races all over the world of different distances and formats. You can participate at any time of the year, and across any type of terrain as in winter or cross triathlon. Some athletes prefer only two sports at a time like duathlon, aqua bike, or aquathlon. And of course, single sports like marathons or open water swim events are just as challenging. There is an event for everyone!

It can be quite overwhelming to know where to start. Don't worry, that's why I created this guide.

In this guide, I'll cover the onboarding process, including my coaching methodology, what you can expect from training, equipment and gear, USAT membership, event organizers, checklists, and more.

Thank you for choosing Carolina Multisports for your training and coaching needs and inviting me to be part of your fitness journey. I look forward to working with you.

Let's get started!

A white, handwritten signature is located at the bottom right of the page. The signature is stylized and appears to be the name 'Jeff'.

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# Introduction

## Hi! I'm Joel.

Joel Young  
Owner & Personal Coach  
Carolina Multisports, LLC

USA Triathlon Level I Certified Coach  
Original Strength Certified Pro  
Functional Movement Systems Level I  
Certified Pro

Take a moment to like my [Facebook page](#) and subscribe to my [YouTube channel](#)!

## My Why

At the invitation of friends, I took on the challenge of learning a new sport, Triathlon! I trained diligently and completed my first sprint distance triathlon. Three years later, I was competing at the World Triathlon Long Distance Championships in my age group! I was hooked! First, because I did something that I never thought I could or would do. Second, because the sport was teaching me more about myself and what I'm capable of.

Initially, I started training as a way to get away from my daily problems by doing something I enjoyed, but the opposite happened. The longer the workouts got, the more time I had to spend inside my head. I was being forced to face my problems each day.



Those were uncomfortable days, not only physically, but mentally, emotionally, and spiritually too.

Through the medium of sport and competition, I have developed and continue to develop patience, perspective, and strength to acknowledge, confront, and overcome many of my own personal flaws and limitations.

Competition has taught me that someone or something else will push you harder than you'll push yourself. Success in sport then breeds confidence and joy.

That confidence births confidence in other areas of your life, in turn, changing yourself, your family, and the communities around you for good.

Carolina Multisports, LLC was born out of my love of connecting with people and helping others to discover, learn from, and excel in endurance sports. Whether you're competing against yourself, your age group, or your friends, bring your competitive spirit and let's do something that might seem impossible today.

## Methodology

Having adopted the Functional Movement Systems (FMS) tagline for myself, I start from the premise that we need to "move well before we move often." Therefore, before any training begins, I start with an FMS screen. From there, I focus any strength training on corrective exercises focused on total body movement as opposed to traditional weight training that focuses on symmetrical loading of individual muscle groups. We'll return often to the FMS screen to assess your changing needs and document your progress.

From there, my training methodology is based on heart rate, by using various zones to ensure you're training at the correct intensities.

Being mindful of the volume of training required for endurance sports, I focus on purposeful low intensity training designed to build energy systems with as little negative impact as possible. I also incorporate high intensity interval training (HIIT) to load the energy systems appropriately.

I consistently remind athletes that we don't get stronger when we're exercising. Soft tissue work, sleep, and nutrition are also highly encouraged and monitored. I encourage athletes to track their nutrition and sleep as part of their training and do soft tissue work regularly. This helps place the emphasis on providing the body with the building blocks to adapt to the loads placed on it.

# Expectations

I want your athletic experience to compliment your life experience. Therefore, family relationships, work careers, and other priorities come first. I will support you as you pursue a training balance that is right for you.

It is my goal to get you to the starting line injury free, and prepared both mentally and physically. Therefore, training plan compliance is very important. I do not expect every workout session to be completed perfectly. Your training plan is unique to you and is flexible. If you miss a workout, just move on to the next day. Don't try to make it up. It is my job to analyze your progress and make adjustments.

Individual workout compliance is also very important. Completing a workout as planned not only develops physical fitness but also mental fitness and discipline which helps reduce the potential for injury and burnout.

Finally, communication is critical. There are many peripheral areas that require your attention, support your training, and may necessitate a change to your training plan. Make it a habit to communicate regularly by reporting on your workouts and communicating other important things in your life that are pertinent to your training.



# Onboarding Process

## Billing

To get started, please visit [CarolinaMultisports.com](https://CarolinaMultisports.com) and sign up for the monthly coaching service of your choice.

Credit card information is securely stored and automatically billed on the first of each month. If you sign up in the middle of a month, you'll be charged a prorated amount for your first month.

Payment is required prior to receiving any services or attending any events.

## Refund Policy

No contract is required for monthly coaching services and proceeds month to month at the discretion of either Carolina Multisports or the client. Monthly payments are not refundable after services have begun after the 1<sup>st</sup> of each month.

Communicate termination dates prior to the 1<sup>st</sup> of each month so billing can be paused for off seasons or canceled indefinitely. Billing is not suspended or refunded for vacations.

Exceptions will be made for medical purposes. A medical note sent directly from a medical professional's office is required via email. A prorated amount will be refunded from the date of the doctor's letter.

View the full refund policy [HERE](#).

## Athlete Intake Form

Before services begin, submit a completed Athlete Intake Form. It will take about 30 minutes to complete. It has a save option if you need to come back to it at a later time. The save feature will send you an email with a link to return back to the form at your convenience.

Be forthcoming and detailed with your medical history as it needs to be understood in its entirety so the demands of endurance training can be appropriately prescribed.

Endurance sports also demand a lot emotionally and mentally. Please be detailed and frank about your motivations.

The end of the form contains several acknowledgements. Please read these carefully.

Start your Athlete Intake Form [NOW](#).

Once the form is submitted, I will review it and contact you to schedule a time to discuss it with you.



## Resources

**TrainingPeaks** – Sign up for a premium account directly at [TrainingPeaks.com](https://www.trainingpeaks.com). The cost is in addition to monthly coaching services. This will serve as your primary training dashboard.

Once you purchase your account, I'll send you an invitation to connect as your coach. In the meantime, link your favorite apps like Garmin Connect, Wahoo, Strava, or MyFitnessPal to upload and track all your data in one place.



**Best Bike Split** – After training begins, you'll receive an email invitation to create an account on this platform and add your bike information. Owned by TrainingPeaks, their math and physics engine takes your power data, course info, and race day conditions to predict your race performance and create the perfect power plan so you can hit your best bike split ever.

## Apps

Download the following additional apps to use as part of your training program.

**TrainingPeaks** – Access and comment on your daily workouts from your phone, tablet, or computer.



**WhatsApp** – Need a workout buddy, trying to sell something, or want to give a shout out? Stay connected to the team with the WhatsApp group chat.



**MyFitnessPal** – Record your daily nutrition and analyze your macros with this free app. Link it to your TrainingPeaks account for further analysis.



# Assessments

We'll complete each of these assessments and tests within the first few weeks after training begins. Some of the assessments need to be conducted in person and others will be done on your own as part of a workout. For the ones you do on your own, be sure to perform them exactly as they are prescribed.

## Strength Training

**Original Strength Screen & Assessment (OSSA)** – Before you begin your training program, I'll conduct a mobility screen and assessment. This will establish your readiness for training and ability to accept loading and volume. It will also identify any muscle chain dysfunctions, asymmetries, or pain in the body from movement.

Schedule an OSSA as soon as possible. We'll do this assessment in person. Plan for about 1 hour. This is a mobile screen and can be done just about anywhere. Wear clothing you can move and stretch in. No warmup is required.

Check out my [YouTube Channel](#) for demonstration videos to assist you during training.

## Swimming

**Underwater Swim Analysis** – This analysis will include several video angles, above and below water level, to help define limiters, improve technique, and prevent injury. Drills will be identified and incorporated into your training plan as a result. All videos will be made available to you for download. Regular assessments will be conducted to document progress and provide continual visual feedback.

Schedule this assessment at your convenience. It is done in person and will take about an hour. All analyses are conducted at either the Triangle Aquatic Center in Cary or the Optimist Pool in North Raleigh. Lane rentals are an additional fee. During the summer months, exceptions can be made by doing the analysis at my community pool during the early morning hours.

**Critical Swim Speed Test (CSS)** – I'll schedule this swim workout for you to do on your own. It will help establish your swim pace zones so you can train at the right intensity.



## Bike

**Comprehensive Bike Fit** – A bike fit is crucial to reduce the possibility of injury, increase power, and help decrease fatigue. You'll be provided with a report of all your measurements and recommendations including a video analysis with measurement overlays. This is also a mobile service. It can be performed at your home if needed. If necessary, we'll repeat the fitting process until the right fit is achieved. Even if you've had a bike fit recently, we will perform the video analysis to obtain your current measurements.

Schedule this assessment at your convenience. We'll do the initial bike fit in person. Schedule up to 2 hours.

**Functional Threshold Power Test (FTP)** – After your initial bike fit, and some bike workouts to make sure you feel comfortable, I'll schedule this test as part of a workout.

This is performed on a smart trainer connected to a cycling program such as Zwift, Trainer Road, Wahoo RGT, Rouvy, etc. If you don't have a smart trainer, I will perform this test for you.

This test will help set your power and heart rate zones on the bike and help ensure that you train at the appropriate intensities to reach your maximum fitness potential without over-training. If you don't have power pedals, we will still perform the test but assign perceived rate of exertion (PRE) scores.

## Running

**Basic Gait Analysis** – I'll assess your overall form, strike pattern, stride length, and cadence with this analysis. These areas are critical to run without pain, while increasing your distance, and avoiding potential injury.

Drills will be identified and incorporated into your overall training plan. I'll provide video analysis which will be made available for download. We'll do this in person on a track and/or a treadmill. Schedule about 1 hour.

**Functional Threshold Pace Test (FTP)** – Similar to the swim CSS and bike FTP, this test is done on your own as part of a workout.

This test will establish your baseline heart rate and pace zones for running.

# 1:1 Sessions

**Intro to TrainingPeaks** – We'll do this over a Zoom call for convenience. Plan about 30 minutes to 1 hour depending on your prior knowledge.

Learn how to use the industry's most powerful training platform.

**Pressing RESET** – A healthy nervous system is the foundation to athletic performance. Understanding how your body detects and responds to stress and being able to manage its effects, not only allows you to recover faster, but reduces the chances of overtraining, burnout, and injury.

We'll do this in person. Plan for about 1 hour.

**Basic Nutrition** – Your training and recovery can be enhanced with the right fuel. By tracking your food intake, we'll develop a nutrition plan to help you get the most out of your experience.

We'll discuss these topics on a Zoom call. Plan for about 1 hour.

**Basic Bike Maintenance** – It's important to know how your bike should operate. It can also save you some money by knowing how to do any minor repairs yourself. Keeping it clean will prolong its life and reduce fatigue from chain resistance. In a race, it's crucial to know how to change a tire, replace a dropped chain, or even how to readjust your handlebars!

We'll do this in person. Have your bike with you and plan for about an hour.

**Transitions Skills** – If three sports weren't enough, the transitions in between each one can be complicated and time-consuming if they aren't carefully planned and executed. You'll also need your transition equipment like a bag or bucket to carry your stuff in and a towel to lay your gear on. Plan for about an hour.

We'll do this in person. Have your bike and all the gear for each sport that you are participating in. Plan for an hour.

**Race Plan** – Once you're prepared mentally and physically, the perfect race day plan will make sure you know what to do, and how to adapt so you have a great experience. Days before your event, we'll schedule a Zoom call to strategize and formulate your race day plan so there are no surprises.

I may be racing with you! If that's the case, I'll be on site to help you with anything you need. If I'm not there, I'm always available to chat.

# Timeline

## Before Training

## Onboarding

- Sign up!
- Submit Athlete Intake Form
- Schedule call to review Athlete Intake Form

## Resources

- Sign up for premium TrainingPeaks account and await email invitation to connect me as your coach
- Await email invitation to connect with the FMS Pro platform
- Await email invitation to connect with Best Bike Split platform, then add bike information

## Apps

- Download the following:
  - TrainingPeaks
  - WhatsApp
  - MyFitnessPal

## Weeks 1-2

## Assessments

- Schedule the following:
  - OSSA
  - Swim Analysis
  - Bike Fit
  - Gait Analysis

## Weeks 2-4

## 1:1 Sessions

- Schedule the following:
  - Intro to Training Peaks
  - Pressing RESET
  - Basic Nutrition
  - Basic Bike Maintenance
  - Transition Skills

"Joel is personable, intentional and approachable. Nothing pretentious about Joel! He provides personalized assessments for each activity and overall flexibility. This has been huge for me because the workouts are tailored to correct and improve MY weaknesses. It is one thing to just put in the miles but an entirely different thing to put in the correct miles. I am excited to see how I improve over the next year as I head toward my Ironman goals.

*Paullette*

# Equipment & Gear

As you can imagine, with three sports to manage, there is a lot of gear needed to both train and compete. The good news is this stuff will last for years. There is also a healthy secondhand market in our area for used equipment if you're patient. The following list is a starting point for a beginner to get the right gear from the start.

## Swimming

**Goggles** –You'll need two different pairs. Get a clear or blue tinted pair for pool swimming and overcast/foggy days in the open water. For sunny days, get a mirrored or dark tinted pair. For triathlon, goggles should be designed with a wider field of vision so not to obstruct your peripheral vision and improve sighting objects in the distance when you're in open water. Always train with the goggles you plan to race in and never buy a new pair and race with them right out of the box. Always have a break in period.

**Swim Cap** – When training, swim caps are a personal preference but are always required during a race (even for bald guys!) for visibility and identification. They are always provided by the race organizer, so you'll soon have tons on hand!

**Fins** – Buy swim fins that fit snugly. They are shorter and stiffer than scuba fins. Fins give you extra propulsion, taking pressure off the arms, allowing you to focus more on upper body drills. They also help develop flexible ankles which is great for cycling and running.

**Kick Board** – Used in a variety of drills, the kick board is an essential tool.

**Paddles** – Paddles come in a variety of shapes and sizes. For beginners, I recommend a flat paddle that is slightly bigger than your hand, held on by rubber tubing. Paddles increase resistance, building upper body strength. The paddles can also be used in a variety of ways, not just on your hands, as part of drills too.



**Pull Buoy** – Whether it's placed between your thighs or at your ankles, a pull buoy is essential to developing proper body position in the water.



**Snorkel** – Purchase a swim snorkel with the tube centered on your forehead. This allows you to swim smoothly and quickly through the water. It also removes the breathing component, allowing you to focus on drills and body position.

**Safety Buoy** – For open water swimming, I always recommend a swim buoy for safety. Not only are you more visible to boats, you always have it to grab and float on. Some buoys also have pouches on the outside that you can stash a water bottle or gel.



**Wetsuit** – Wetsuits come in a variety of lengths, thicknesses, and colors. For triathlons in North Carolina which usually occur from April to October, a sleeveless wetsuit with a thickness of about 3-5mm is probably all you'll need. If you prefer, you can purchase wetsuit sleeves. This will make your sleeveless wetsuit more versatile without creating any restriction in the shoulders.

Hardy swimmers may prefer a full wetsuit, but they can be restrictive in the shoulders, creating a lot of fatigue, if you're not used to swimming in one. As it gets colder, you may opt to add neoprene gloves, booties, and/or a hat.

When it's too warm for a wetsuit, you might consider a swim skin. It doesn't provide any buoyancy but decreases drag in the water.

Water Temp	Wetsuit Type
Below 50°	Full with boots, gloves, & hat
50° - 60°	Full with 2 swim caps
60° - 70°	Full or Sleeveless
70° - 80°	Sleeveless or Swim Skin
Above 80°	Swim Skin





# Cycling

**Bike** – Triathlon or time trail bikes are equipped with aero bars and have more aerodynamic designs (tubing is usually sweeping or flat) and narrow tires. These are better for flat to rolling courses. These types of bikes are also more beneficial in long distance races where aerodynamics save energy for the run.

Road bikes can be a great choice for hilly courses because they tend to be lighter than triathlon bikes. As an alternative, aero bars can be mounted on road bikes if desired.

It's important to note that not all races allow aero bars. In draft legal races, riders are much closer in proximity to each other, therefore, aero bars are not allowed.

**Helmet** – USAT regulations require you to wear a helmet during every race that is CPSC (US Consumer Product Safety Commission) certified. If you bought the helmet in the US, (be careful with online orders) you should be fine. Many races inspect your helmet for this certification.

Make sure your helmet fits snugly but doesn't press on any parts of your head with any pressure points such as on your forehead or the sides of your head. These pressure points can become distracting and painful over time.

As a beginner, any helmet will work great. As you progress, you may choose to buy an aero helmet. This can save up to 5 watts of energy on the bike which is significant over long-distance races.

**Glasses/Visor** – Some helmets are equipped with a visor. For those that are not, choose a comfortable pair of glasses. Not only do they shield your eyes from the sun's glare and UV rays, but they protect your eyes from debris and insects in the air, protecting you from a potential wreck. Make sure they do not press too hard on your temples and they have good ventilation to prevent fogging.

**Head Band/Skull cap/Hat** – To prevent sweat/sunscreen from getting in your eyes, choose from a variety of headbands or caps to wear under your helmet.

**Shoes** – Choose a pair of bike cleats that are specific to triathlon. These usually have Velcro straps that can be quickly tightened, and they usually have mesh holes in the bottom to drain water from your feet after the swim and/or during hot days when your feet are sweating.

Triathlon shoes are also designed to be more comfortable, therefore, many triathletes do not wear socks on the bike since it can be very difficult and time consuming to put them on over wet, dirty feet.



**Power Meter** – Power meters can be added as a pedal or as a crank shaft if you don't already have them. Training with a power meter helps you know exactly how much work you're doing, helping you know when to push harder and when to take it easy. This decreases the potential of over training and helps you train at the correct intensities.

When you're racing, it's important to know how much energy you expend on the bike, so you have enough during your run. This is where your Best Bike Split account comes into play.



Pedals also come in a variety of shapes. Make sure your cleats match your pedal type and that you're comfortable with how tightly your pedal holds the cleat. It can be adjusted to make it easier to unclip.

**Trainer** – Our lives are busy and having a trainer at home allows you to quickly hop on your bike and get in a workout. It's also safer than being out on the open road, especially if you're by yourself. They're also great if training

during inclement weather or during the winter months. Trainer workouts also keep you honest and consistent because you don't have a hill to coast down!



**Repair Kit/Basic Tools** – Having basic bike tools with you and the knowledge of how to use them will help you if you're on the side of the road but can also save a few dollars if you can fix your problem yourself.

Some basic tools you should have include an Allen wrench set, tire levers, CO<sub>2</sub> cartridges, CO<sub>2</sub> nozzle, and extra tubes.



## Running

**Shoes** – Having the right pair of shoes cannot be overstated. With the right shoes, you'll avoid excessive fatigue, warmth, and irritation which can all lead to injuries. You'll cover hundreds, if not thousands of miles during training so it's also important to track your miles and change them often. Depending on the brand of shoe, you should consider replacing shoes after 300-500 miles. During a race, it's also good to have shoelaces that are elastic, and have a quick release so they can be put on quickly and won't come untied.



**Hat** – With the run being the last leg of a triathlon, your body temperature is going to be at its highest. The run is usually during the hottest part of the day too. Wearing a hat not only keeps hair and sweat out of your face but provides some much-needed shade. Unlike a visor, a hat also allows you to tuck ice under it to help regulate body temperature.

## Miscellaneous

**Smart Watch** – Smart watches are indispensable. They are with you every step of the way. Do your research and don't skimp on this purchase. Not only do they help us train effectively and efficiently, but they also provide a level of safety. By tracking your metrics, you can know precisely when to push it or back off.

Choose a watch that has a full suite of metrics for swimming, cycling, and running, or the specific sports you participate in. It can even double as a bike computer, so you don't have to double up. Choose one that will also connect to the various products you own like your heart rate monitor if it's separate or your power meter on your bike.

**Heart Rate Monitor** – Many smart watches have a wrist-based heart rate monitor which can suffice. However, a chest strap HRM is more accurate and reliable. Choose a HRM that is also waterproof and can be used in a pool or open water setting.

**Foam Roller** – Hasten your recovery with a foam roller by removing lactic acid from the muscles and increasing nutrient rich blood flow. There are many different versions from smooth to bumpy.



**Nutrition** – During a race, nutrition and hydration is provided for you. If you don't want to carry your own, be sure to train with it under similar weather conditions and race intensities so you know how your gut responds to it.

While running during training, choose a hydration pack that sits high on the back or a waist band that holds a bottle centered at the small of your back. With any setup, it should be symmetrical. Avoid carrying a bottle in one hand or the other. This throws off your gait.



**Body Lubrication** – It's important to avoid any type of friction during a triathlon which can lead to blisters, rashes, or cuts. This can be difficult with three sports, especially when you swim and start cycling with wet clothing and continue to sweat creating a salty, sandy feeling on your skin. Initially, you'll need to test several lubrications to ensure you choose one that works best for you.

For the swim, apply a spray or cream to your underarms, neck, wrists, and ankles. Concentrate on areas were a

wetsuit my rub. You can also apply some to the outside of your wetsuit to help slide it off quicker.

For cycling, choose a chamois cream that is applied to the inside of your shorts and directly to your skin around your genital area.

During a run, apply lubrication to your toes, ankles, thighs, and underarms. In short, you need lubrication everywhere!



**Apparel** – A Tri Kit can either be a one piece or two. Typically, athletes opt for a one piece for shorter races and a separate top and bottom for more comfort during longer races. In either case, they can both be worn under your wetsuit and throughout the event without having to change clothing. These are worn without underwear.



# Race Day

**Number Belt** – By wearing a number belt you don't have to pin your bib number to your clothing, making you faster in transition but also avoiding any rips or tears. It also gives you the added movement and flexibility if you're wearing it under your wetsuit, turning it on your back on the bike if it's required to be worn by the organizer, and then turning it back to the front around your stomach which is required on the run.



**Timing Chip** – A timing chip is always provided by the race organizer on race day. For triathlon, you wear a strap with a chip attached to it. The band provided by the race organizer may be a plastic medical band which may cut your skin. Have a neoprene timing chip band with you to attach your chip to instead. Always wear it on your left ankle so you don't get it caught in your bike chain. For running races, your timing chip can be a sticker on the back of your bib number.



**Body Marking Tattoos** – Body marking with your race number and age group are usually required by the race organizer. A simple black marker can be used to write this information. Check with the race organization about the required location and information to be visible. For added emphasis, you can preorder tattoos to display the information in a professional way. Some race organizers provide tattoos.



**First Aid Kit** – Always keep a basic first aid kit in your transition bag at all times. It should include the basics, for small cuts, blisters, sun burns, rashes, and medication for pain, upset stomach, diarrhea, and so forth. These items can also be carried in a small tube or bag while you're training or racing for convenience.

**Head Lamp** – Races typically start early in the morning. You'll most likely need a headlamp as you're traveling to the transition area and so you'll have your hands free while you're setting everything up.

"As a newcomer to triathlon, my race fitness and technique have greatly improved [since] I've been working with Joel. His workout blocks, advice, and analysis helped me smash my stretch goals in my most recent race. As a coach, he's always been available and responsive to questions via email or phone. Looking forward to more great race experiences and PRs ahead."

*David*

# USAT Membership



A USA Triathlon membership is required to participate in any of the 4300 different sanctioned events nationwide. Membership cost is in addition to coaching services.

You can either purchase a 1-day license at the same time you sign up for an event or you can purchase an annual membership.

Use this [LINK](#) to get \$5 off an annual membership. If you've purchased a one-day license within the last year, you can apply that cost towards the purchase of an annual membership!

USA Triathlon Annual Members receive a variety of additional benefits including, a free subscription to USA Triathlon Magazine, exclusive discounts from USA Triathlon Partners, inclusion in the USA Triathlon national ranking system, as well as eligibility to qualify for Team USA and compete at World Triathlon events.

Your purchase of a USAT membership, also provides you with excess medical insurance. This coverage only extends to your participation in a USA Triathlon sanctioned event and is only available after you have filed with any primary insurance policies first. For more information click [HERE](#).



# Race Types & Event Organizers

## Race Types

**Triathlon** – Three sports, starting with a swim, followed by a bike and run, with two transitions.

**Duathlon** – Formatted as a run-bike-run, with two transitions.

**Aqua Bike** – Consists of a swim and bike portion, with one transition.

**Aquathlon** – Swimming followed by running, with one transition.

## Distances

### Short Course

Ideal distances for the beginner to get a taste of the sport. They're also great opportunities for the experienced triathlete to go all out and hone their skills.

**Sprint / Standard** – A sprint triathlon consists of a .5mi/0.75km swim, 12.4mi/20km bike, and 3.1 mi/5km run.

**Olympic / International** – An Olympic distance triathlon consists of a 0.9mi/1.5km swim, 24.8mi/40km bike, and 6.2mi/10km run.

Triathlon made its debut as an Olympic sport in 2000 in Sydney, Australia, hence the name.

### Long Course

Test your endurance with these two distances.

**Half** – A half triathlon consists of a 1.2mi/1.9km swim, 56mi/90km bike, and 13.1mi/21.1km run. As the name suggests, it is half the distance of a full distance triathlon.

**Full** – A full triathlon consists of a 2.4mi/3.8km swim, 112mi/180km bike, and 26.2mi/42.2km run.

Many people refer to a half or full triathlon as a half Ironman or full Ironman race. These are only brand names attributed to each distance race by the Company Ironman.

Distances for the other popular multisport disciplines typically follow the same distances for each sport they include.



# Event Organizers

There are numerous companies that host quality events across the US and abroad. This is an area you can save/spend a lot of money. The following companies do not constitute an exhaustive list but are good companies to start looking for your first/next race.

## Local/Regional



**Set Up Events** – Set Up Events mainly focuses on sprint and Olympic distance triathlon across North and South Carolina but they also offer a couple half distance triathlons along with open water swim events. They also offer a women’s only Triathlon, the Ramb’l’in Rose. Find all these events and more at [setupevents.com](http://setupevents.com)



**FS Series** – FS Series hosts a variety of triathlons in addition to many other endurance events across North Carolina. They also offer triathlons with a pool swim. Some of their most notable events are Reach the Beach, a 100-mile bike ride, the RDC half and full Marathon, and the Crystal Coast Half Triathlon. Check out their schedule of events at [fsseries.com](http://fsseries.com)



**Brick Endurance** – The Brick Endurance Summer Triathlon Series consists of four fully supported super sprint triathlons held on Wednesday evenings throughout the year at the Rolling View State Park at Falls Lake. Learn more at: [brickendurance.com](http://brickendurance.com)



**Humans of Steel** – Looking for something different, try doing a triathlon backwards! That’s right, run first, bike, then swim last. This race is a sprint distance and is held locally at Harris Lake. Learn more at [humansofsteelm racing.com](http://humansofsteelm racing.com)

## National/International



**Ironman** – Ironman has undoubtedly become the most recognizable brand in the sport of triathlon. Having brought the sport out of obscurity in the 80's, the terms “half Ironman” and “full Ironman” races have become synonymous with each distance race regardless of what organization hosts the event.

Within its brand, they only offer two distance races, a half (70.3 miles) and a full (140.6 miles) distance triathlon. They host their world championships annually in Kona, HI for the full distance and St. George, UT for the half distance. Learn more at [ironman.com](http://ironman.com)

**Clash Endurance** – Clash Endurance is the North American counterpart of the Challenge Family based out of The Netherlands. Like Ironman, the Challenge Family organizes and hosts middle (70.3 miles) and Long distance (140.6 miles) triathlons across the US and the world. They are perhaps Ironman's biggest competitor abroad and are typically cheaper. They boast the 2<sup>nd</sup> longest running triathlon in the world, (The Holland Triathlon, which is now Challenge Almere-Amsterdam) behind Ironman. Check them out at [clash-usa.com](http://clash-usa.com) or [challenge-family.com](http://challenge-family.com)



# Checklists

## Gear

### Swimming

- Wetsuit
- Wetsuit sleeves
- Neoprene gloves, booties, & hat for cold water
- Two pairs of goggles (One light, one dark, not new)
- Swim Cap
- Small Towel
- Timing Chip/ankle band
- Cheap sandals

### Cycling

- Bike
- Helmet
- Cycling shoes
- Rubber bands for triathlon
- Socks
- Baby powder if not wearing socks
- Gloves
- Sun Sleeves
- Skull cap/headband
- Vest
- Race wheels
- Tire pump
- CO<sub>2</sub> cartridge & nozzle
- Spare tube, extra batteries and bolts/screws
- Charger for Di2 shifters
- Tire lever
- Multitool
- Water bottles
- Chamois cream

### Running

- Running shoes
- Race number & number belt
- Sun Sleeves
- Arm warmers
- Hat or head band
- Sunglasses
- 2 pairs of socks
- Hydration pack

### General

- Itinerary and directions
- ID
- USAT membership card for annual memberships
- Race kit
- Smart Watch
- Heart rate monitor
- Timing Chip/ankle band
- Body Lube
- First aid kit
- Lip balm
- Sunscreen
- Magnesium spray
- Warm clothes
- Nutrition and Hydration
- Extra fluids in case of delay
- Recovery nutrition
- Change of clothes
- Sharpie marker
- Scissors

# To-do List

## 2 Weeks Before Race

- Clean and inspect bike. Tighten all screws.
- Set screens on smart watch. Practice switching through the screens during workouts.

## 1 Week Before Race

- Prepare solutions list and race plan
- Install race wheels. Ride on them to make sure everything is working properly.
- Get sports massage.
- Trim fingernails.
- Prepare transition bag.
- Purchase any last-minute items.
- Inspect wetsuit for tears. Repair if needed. Soak underwater in bathtub if first race of the year after storage.

## Day Before Race

- Check in.
- Scout swim course. Swim part of course if allowed to familiarize yourself with the course and test wetsuit.
- Drive and scout bike course if possible.
- Eat high carb lunch if race is over 3 hours.
- Stay off your feet and out of the sun.
- Eat low fiber dinner.
- Take hot shower before bed to relax muscles.
- Apply mineral based sunscreen for max absorption.
- Apply magnesium spray to legs.
- Set alarm.
- Get a good night's rest the night before.

## Race Day

- Drink 12 oz. of water upon waking.
- Go to the bathroom several times.
- Take off wedding band or any jewelry.
- Apply sunscreen & body lube.
- Apply magnesium spray.
- Eat breakfast 3-4 hours before start time.
- Arrive early & check-in if you didn't the day before.
- If possible, get in water and warm up. Swim up to 200-300m.
- Scout swim course again: Take note of sun position, water current (watch other swimmers), prominent landmarks on shore for sighting.
- Have fun!

# Abbreviations & Glossary

Your training plan will contain a lot of abbreviations and verbiage you may not be familiar with initially. Use the following resource to understand them.

**(30) or :30** – You'll usually see this within your swim workouts. This refers to the length of a rest interval. This specific example would refer to resting 30 seconds after a set.

**Active Recovery** – Movement is often better than no movement for recovery. Movement clears muscles of by products and circulates nutrient rich blood for recovery. Although you may have the day off, it's good to focus on stretching, resets, soft tissue work, or yoga.

**Aero** – Refers to your position on the bike meaning you're aerodynamic and moving forward efficiently with little drag.

**Aero bars** – Part of the headset on a triathlon or time trial bike that allows you to "lie down" in a more aerodynamic position. These can also be added to a road bike. Never use aero bars when drafting.

**AE** – Aerobic Endurance

**AeT** – Aerobic Threshold

**ATL** – Acute Training Load. ATL combines duration and intensity to measure overall fatigue and refers to how your most recent training impacts your body. ATL is a 7-day rolling average of your TSS.

**ATP** – Annual Training Plan

**BPM** – Beats per minute

**Brick** – A workout that combines two different disciplines to train muscular adaption. For example, a bike ride followed by a run.

**Build** – Increase pace throughout the set.

**CD** – Cool Down

**Cruise** – A specific type of threshold-pace running in which the workout is divided into several segments of accelerated running separated by short recoveries.

**CTL** – Chronic Training Load. Think of CTL as a measure of your true fitness. It's a 42 day or 6-week average of your TSS.

**Descending** – Each set is faster than the previous one.

**Dolphin Kick** – Kick legs together in a single motion.

**DOMS** – Delayed Onset Muscle Soreness. Muscle pain or soreness felt after you've worked out usually a day or two later. You won't feel DOMS during a workout.

**Drops** – Lowest set of handlebars on headset. These are the most stable and should be used when descending, cornering, or drafting.

**EF** – Efficiency Factor. The ratio between normalized power (cycling) or

normalized pace (running) and average heart rate for the workout or selected workout segment.

**Fartlek** – A form of unstructured speedwork. It involves a continuous run, in which periods of faster running are mixed with periods of easy or moderate paced running. There is not a complete recovery period or interval.

**Floating Start** – A type of race start where participants tread water along a starting line.

This is also a swimming drill where you float face down in the water sculling, then take 5-6 strong strokes with a strong kick before your first breath. Do not breath before the flags. After first breath, settle into set.

**FMS** – Functional Movement Systems. FMS is a certification company.

**FTP** – Functional Threshold Power, Pace, or Heart rate. This is applied across different sports and is the maximal effort you can sustain and maintain for an hour without fatiguing.

**HIIT** – High Intensity Interval Training

**HR** – Heart Rate. This is the number times your heart rate beats in one minute.

**HRM** – Heart Rate Monitor

**HRV** – Heart Rate Variability. Our heart rate is not consistent and regular like a metronome. HRV measures the time between each beat. This can be used as a global tracking metric to capture stress and fatigue from external sources that are not identifiable in a workout, i.e., relationship or career stress.

**IF** – Intensity Factor. IF is simply how intense a workout was in comparison to your threshold. For example, an IF of .80 would be equivalent to 80% of your threshold.

**kcal** – Kilocalories. A kilocalorie is the amount of heat required to raise the temperature of one kilogram of water one degree Celsius.

**Kick** – Use snorkel, fins, or kick board during swim set.

**KJ** – Kilojoules. A unit of work. For cyclists, Kilojoules are approximately equivalent to calories expended.

**Ladder** – Sets of intervals that decrease in pace or distance per set.

**LT** – Lactate Threshold. The level at which the intensity of exercise causes lactate to accumulate in the blood at a faster rate than it can be removed, marking the border between low and high intensity work.

**MS** – Main Set

**MTB** – Mountain Bike

**Neg. Split** – Negative Split. Completing the second half faster than the first half of a set, a workout, or race.

**NGP** – Normalized Graded Pace. In running, NGP takes hills into account and gives an estimate of what your pace would be if you were on a flat course.

**NP** – Normalized Power. In cycling, NP takes into account surges and/or hills and provides an estimate of the metabolic cost as if it was steadily paced.

**OS** – Original Strength. OS is a certification company.

**OWS** – Open Water Swim

**OWSP** – Open Water Swim Practice

**Paddle Pull** – Use pool buoy between legs or at ankles to reduce or eliminate legs from kicking and use paddles on hands to increase resistance.

**Pa:HR** – The ratio of Pace to Heart Rate as a measure of decoupling.

**PB** – Pool Buoy

**Pick Up** – Increase pace during set faster than you normally would run, then bring it back down.

**PMC** – Performance Management Chart. A chart of Fitness (CTL), Fatigue (ATL) and Form (TSB) over time. Used to plan and track periodization, training load, and event readiness.

**PRE** – Perceived Rate of Exertion.

**PS** – Preset. Part of a workout still focused on drills and form before the main set.

**Pull** – Use pool buoy between legs or at ankles. Do not kick legs. Focus on upper body work and stroke.

**Pw:HR** – The ratio of Power to Heart Rate as a measure of decoupling.

**Ramp Rate** – The change in CTL over time. A ramp rate that is too high may lead to overtraining or injury; too low may not gain fitness quickly or effectively.

**RAS** – Rest after Set

**RPM** – Revolutions per Minute

**RPS** – Rest per Set

**Smooth** – In swimming, increase distance per stroke and glide more.

**Soft Tissue Work** – Recovery work such as foam rolling or massages to improve the quality of skin, muscle, fascia, tendons, and ligaments.

**Stride Out** – Short bouts of faster running with recovery in between.

**Surf Kick** – Alternate kicking legs back and forth.

**Swim** – Swim normally.

**T1** – In triathlon, it's the transition area where you change from the swim portion to the bike portion.

**T2** – In triathlon, it's the transition area where you change from the bike portion to the run portion.

**T-Pace** – Threshold Pace. Your fastest pace you can sustain for 1 hour.

**TSB** – Training Stress Balance. This is your “ready to race” metric. The lower the number the more fatigue and less ready you are, whereas the more positive the number the better recovered you are and ready to race.

**TSS** – Training Stress Score. TSS is a score given to a workout telling you how hard it was. This takes into account intensity and duration.

**TT** – Time Trial

**Time Trial Start** – A type of race start where your time does not start until you cross the first timing mat.

Participants usually line up in a corral and start their race in 3-5 second intervals.

**Transition Area** – This is the area where you have all your equipment for the next discipline. Some races have changing tents where you can change clothes if you need to. Sometimes, T1 and T2 are in different locations called a point-to-point race.

**VAM** – Velocity Ascended in Meters/hr. VAM is a measurement of how fast you climbed a particular hill. Elevation and speed are needed to calculate.

**V3** – Half distance race pace effort.

**V5** – Olympic distance race pace effort.

**VE** – Very Easy.

**VI** – Variability Index. VI is normalized power divided by average power.

**W** – Watt. A unit of power. Represents energy expended over time.

**Wave Start** – A type of race start where all participants within a certain category, such as age or sex, all begin the race at the same time.

**WD** – Warm Down

**WU** – Warm Up

**W/kg** – Weight per kilogram. This is a measurement of how much power you exert on the bike per kilogram of body weight.

**Z** – Zone





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