



Dave Scott's
Triathlon Training Plan Guide

Dave Scott, Inc.



Purpose of this Guide

Every tribe speaks its own language, and our tribe of triathlon has a unique vernacular and jargon that can, at times, be confusing.

This Guide is designed to accompany one of Dave Scott's 12-week training plans, and will help familiarize you with Dave's training philosophy and decipher his terminology.



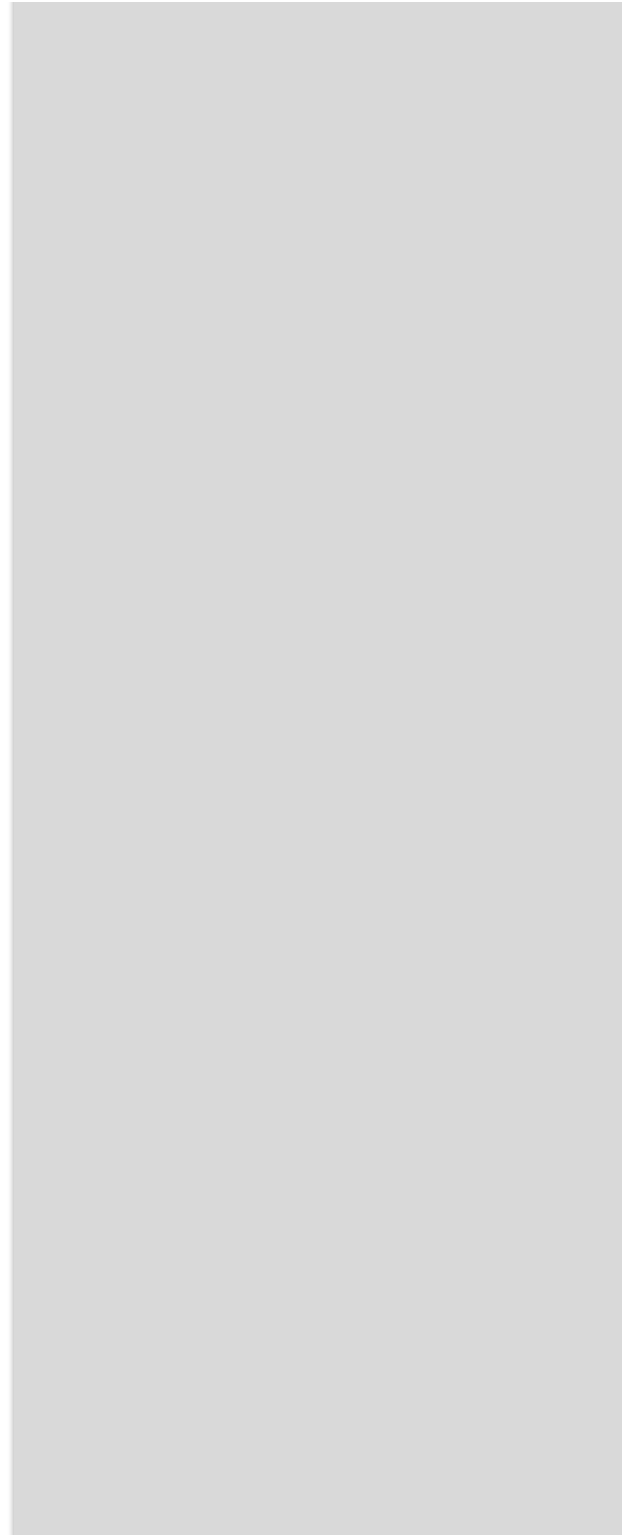
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Be sure to check with your doctor prior to engaging in any rigorous physical training. You are responsible for your own health!

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Introduction

For more than 35 years I've had the privilege to coach and advise thousands of athletes, from novices to competitive age groupers to world champions, like Chrissie Wellington and Craig Alexander.

I served as the national triathlon coach for Team in Training for more than a decade, where I taught both introductory and advanced techniques to TnT's coaches. As a Master Coach of IRONMAN U, I helped author its rigorous coaching certification program.

I'm also the founder of the Dave Scott Institute, headquartered in Kailua-Kona and Boulder, CO, which produces cutting edge training methodologies and devises practical solutions for triathletes by utilizing the very latest science and research.

My lifelong passion for coaching is reflected in everything I do.

With this training plan, you gain access to my wide-ranging experience distilled down into a single, targeted program. It will provide a systematic and progressive approach to your weekly regimen to ensure incremental improvement and race day success... I call this **The Dave Scott Method™**.

While requiring your focus and commitment, this plan has been designed to accommodate the occasional interruptions and detours that we all experience in our hectic lives. If you can complete 70% to 85% of this training program, then you will achieve success. I guarantee it.

I hope you enjoy the experience – good luck!



Overview of Your Training Plan

This training plan incorporates a purposeful and progressive protocol that will guide you to your goal race.

Development of your aerobic foundation is the backbone of any triathlon program, so you will spend a great deal of time fortifying your aerobic “plumbing.” However, while aerobic training makes up a large portion of the program, I’ve incorporated varying workload intensities to maximize your progress and “metabolic return”.

These injections of “High Intensity Interval Training” -- or “HIIT” – will be the secret to your success! They deliver a huge return, improve your training efficiency, and provide purpose to almost every session.

Marker Sets will provide the opportunity to assess your improvement. I have integrated marker sets at regular intervals within each training cycle. Recording your total distance, perceived exertion, speed, or power will allow you to evaluate and critique your progress through the plan. You may choose among a wide variety of tools to monitor your progress. If you want simplicity, then that is your choice. You can decide what tools work best for you.

Before performing a training session, refer to the workout description for details on what that workout entails. The workout jargon – and my sometimes cryptic abbreviations – is explained in this training guide.

Each workout may have a total time or total distance specified. This is only meant to be a reference. Keep in mind that every athlete is different so don’t worry if the total time seems too much for the total distance (or vice versa) – just go by the workout description.

If a particular workout seems too difficult – or if you’re just feeling “off” on that day – then focus on completing the Warm-up and the Main Set.

If you miss a day – and you inevitably will – don’t try to make it up. Just look ahead and keep going.



Understanding Training Workloads

Workload is the demand you place upon your body when exercising – often referred to as the “training zone.”

“Specificity” is the exercise principle that states the type of demand placed on the body dictates the type of adaptation that will occur. If you spend time training at a given workload (or in a specific training zone), then your body will adapt specifically to that workload. As triathletes, we want to appropriately stimulate our body to adapt to the demands of our goal race.

Here are the workloads found in my programs -- **from lowest to highest intensity** -- and how they relate to your triathlon training.

Recovery

Very, very light exercise. Workload is predominantly prescribed post race and/or recovering from an injury or illness.

Allowing your body adequate warm-up time, elevating the skin and core temperature, typically requires 8 to 20 minutes. The warm-up should reach 40 beats below LT before beginning any higher levels of exertion. When cooling down to a stop after a rigorous workout, allow your heart rate to drop into this zone before ending your session.

Cruise

Slightly above Recovery zone and below Aerobic zone. Cruise intensity is typically used for moderate to light exercise sessions. After a long or more intense LT workout, exercising the next day in the Cruise zone is ideal. Cruise intensity will enhance aerobic plumbing but more importantly allow a psychological reprieve from higher intensity training. Additionally, this zone is used during recovery between hard anaerobic endurance intervals, $\dot{V}O_2$ sessions and anaerobic power repeats. This zone is approximately 30 beats below LT.



Aerobic (A)

Aerobic efforts are moderate enough to sustain broken conversation. Muscular overload should not occur; the desired output is a constant effort. The muscular load may vary slightly but the depth of breathing and heart rate should be generally steady.

The greatest stimulus in establishing and maintaining aerobic performance is garnered from training in the Aerobic zone. **70% to 80% of your entire training time should be spent in the Aerobic zone.** Ideally, the body should not produce any lactic acid while at this intensity.

As your training season progresses, your aerobic economy will improve; heart rate range may stay the same, but your workload at Aerobic intensity will increase.

Aerobic training enhances your body's adaptive physiological functions including capillary density, blood volume, aerobic enzyme activity, and mitochondrial density and function. Aerobic training also teaches the body to conserve muscle and liver glycogen, and to increase free-fatty acid metabolism.

Unfortunately most endurance athletes *only* train at aerobic intensities and, therefore, never achieve their potential. The Dave Scott Method injects carefully designed sessions of higher intensity training to amplify the benefits of aerobic workouts. As you'll soon see, by concurrently developing your aerobic and anaerobic energy systems, your overall performance capacity will improve.

Sub-Lactate Threshold (subLT)

This is an 8% easier effort than LT. The workload is moderately hard and the athlete should be singularly focused on the exercise performance. Breathing rate is elevated and heart rate is 6 to 10 beats higher than the aerobic zone.

Elevating your capacity to work longer at subLT is key for building faster triathletes.

Intermediate and advanced athletes tend to be very efficient at SubLT intensities and, therefore, should be able to sustain this effort for 90 minutes to 4 hours.

Lactate Threshold (LT)

LT or FTP ("Functional Threshold Power" on the bike) is your lactate threshold. This is a hard to very hard effort.

Formerly called the "anaerobic threshold", the term lactate threshold is analogous to your car's tachometer nearing the "red line". Yes, you can cross over that line many times, but

eventually you'll burn too much fuel. Our human engines have a similar response.

The ideal training stimulus for triathletes is to elevate your LT that, in turn, increases performance output (as measured in watts or speed).

The LT workloads in your training plan will typically be broken into repeats of 30 seconds to 12 minutes, with set lengths of 60 seconds to 20 minutes. LT output can be sustained for 45 to 75 minutes for the advanced athlete, and for 15 to 45 minutes for the intermediate athlete.

One of our primary goals over the course of your 12-week program is to improve your LT.

VO₂

The intensity of this zone is 3-12% harder than LT. We train at this level to develop "speed endurance", which stresses both the aerobic and anaerobic energy systems.

VO₂ sets are broken into repeats of 2 to 7 minutes, and the set length may extend to 20 minutes. The effort is very, very hard.

The advanced athlete can maintain their VO₂ intensity for 15 to 20 minutes, while the intermediate can sustain it for 8 to 16 minutes.

Anaerobic Endurance (AE)

Short, very fast segments of 25 seconds to 2 minutes. These efforts develop the fast twitch 2A and 2B muscle fibers, which assist the slow twitch fibers in your triathlon races. The set lengths vary from 3 to 9 minutes and may include multiple sets during a single workout.

Anaerobic Power (AP)

This is explosive exercise lasting from 10 to 25 seconds. AP efforts develop the fast 2B muscle fibers and are important for your high intensity swim starts. Set length is 2 to 8 minutes. Dave occasionally inserts AP sets into swim sessions by utilizing very hard fin kick sets. They are also implemented in some of the bike sessions.



Measuring Intensity

Intensity is the measure of how hard you are working; i.e., your training workload. Not surprisingly, the harder or faster you go, the shorter the time interval that you can maintain that effort.

Here are the different methods you can use to measure intensity. I recommend that you test all of them, and use a combination of the methods that work best for you.

1. Rate of Perceived Exertion

Rate of perceived exertion (RPE or PE) is a measurement “tool” that all athletes can use to measure and evaluate their effort based on the perceptions or feelings of intensity.

Initially, these perceptions will be subjective. However, over time your insights -- combined with RPE with heart rate, speed, or power -- will become quite accurate.

The simplest form of RPE evaluation is to record a number based on a scale of RPE intensity from 1 (easiest) to 10 (hardest). For example, if an athlete runs 5 miles and the effort feels moderate, this can be recorded in the log. As an athlete’s experience broadens, he or she may integrate multiple components of exercise both subjective and objective.

Muscle ache, heart rate, and breathing rate are all physiological and psychological stimuli that determine your RPE. The ability to precisely project, target, and comprehend your effort can be acquired by noting your RPE after your sessions. The power of gauging RPE is that it can be readily adapted to your routine. Simply stated, how does the exercise feel? This is the objective of using the RPE scale.

Triathletes often find this scale to be useful. Combining RPE with at least one other measurement (e.g., speed, watts, heart rate) allows the athlete to get a better grasp of her physical and psychological intensities.

RPE Scale of Exertion

Zone	Sensation during Run, Bike and Swim Intensities	Rating
Recovery	Run: Slow walk / easy jog Bike: Easy Spin Swim: Cruise	1 – 1+
Cruise	Light jog, spin or swim with proper mechanics	2 - 3
Aerobic	Moderate pace: Conversational on the bike and run	3 - 4
Sub-Threshold	Moderately hard, 3 to 4 words in a broken conversation	5 - 6
Threshold	Hard to very hard. Breathing is deep, concentration is acute	7
VO ₂	Very, very hard. Breathing is labored, heavy muscular fatigue	8 - 9
AE - AP	Total muscular overload	9 - 10

2. Heart Rate

Measuring heart rate is an inexpensive, convenient and fairly effective method for monitoring intensity. Heart rate is correlated to exercise intensity, increasing linearly as intensity increases. You can train within target heart rate zones, with each zone keeping you near the optimal intensity for a specific type of training.

However, heart rate based training has its limitations. Factors like anxiety, caffeine, fatigue, hydration levels, etc. can influence heart rate up or down. Keep in mind, too, that the heart rate response to changing intensity is not immediate — it takes approximately 30 to 60 seconds for heart rate to match a change in effort.

Using a heart rate monitor in conjunction with RPE is a powerful tool. Pay attention to your heart rate and see how it reacts in different situations, but never become a slave to your monitor!

Typically, at the start of the season, the lactate threshold heart rate (LTHR) is approximately 20 (for advanced athletes) or 30 (for intermediates) beats *below* your maximum heart rate.

As your fitness improves, LTHR may rise 6 to 10 beats per minute. More importantly, your speed at LT will improve.

3. Speed or Pace

Pace or speed is an excellent way to track training intensities.

Who comes to mind when you think of "speed": elite sprinter Usain Bolt, or Deena Kastor, American record holder in the marathon?

My guess is you selected Usain Bolt. Yet, when we look at Deena Kastor's time of 2 hours 19 minutes for 26.2 miles – that's darn fast – an average of 5:20/mile. They're both speedy!

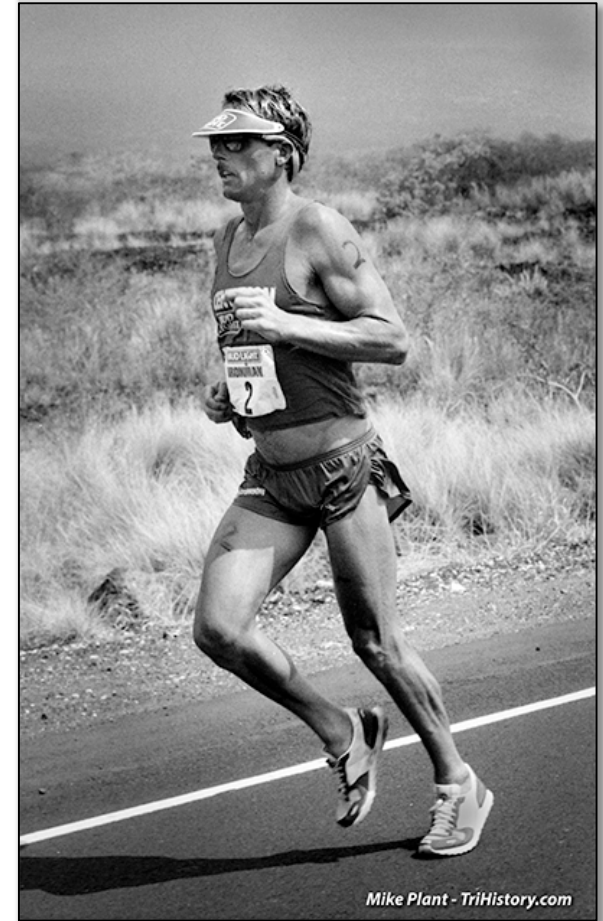
So what's my point?

Speed is relative to the distance covered and the fitness level of the athlete. Chart your speed for most of your workouts. Monitoring the time or speed of repeats is an invaluable tool in assessing workout intensity.

For example, a suggested cycling workout may include aerobic zone training for 10 miles and recording the total time when completed. Noting the speed for this session's workload provides information for future workouts.

In another example, if the running workout calls for a set of 6x 200 at a very hard intensity, attaining the top speed of each repeat would be the choice metric. In this case, since the distance (200m) is short, the breathing rate and heart rate never rise to the same levels as the discomfort that the athlete experiences. Therefore, use time or speed plus RPE as the index when evaluating the anaerobic speed (and never heart rate).

In summary, pay attention to – and track – your pace during workouts. You will develop a keen sense of how fast you are covering any given distance.



Understanding My Workouts

Workout Structure

Each workout typically contains a suggested warm-up of 6 to 12 minutes, a main set, possibly secondary sets, and a cool down period. For the competitive athlete you may insert a warm-up routine that has worked for you in the past.

The main set will indicate total time or distance along with the workout intensity. Additionally, if the main set is a series of repeats, the description will include the rest interval (RI) between the repeats. In longer training sessions a second set may be included. If I did not specify a cool down period at the end of the workout, please do an easy 5 to 10 minute effort, particularly on the bike and run workouts.

Below are explanations for the abbreviations you'll find in my workouts.

Workout Abbreviations

HR (Heart Rate)

Heart rate is implemented in the workouts to determine specific training workloads. For example, after the main set there may be a notation that either indicates aerobic (A), sub lactate threshold heart rate (subLT), or lactate threshold heart rate (LT).

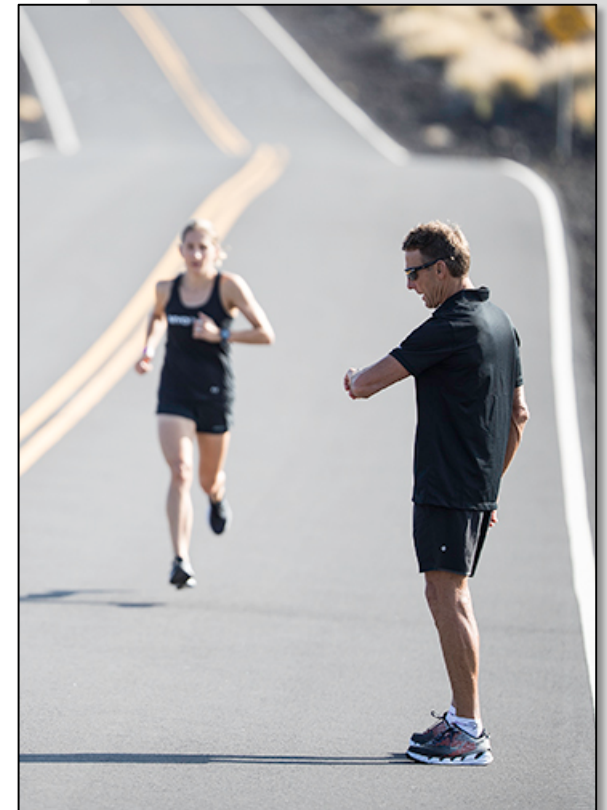
Interval Time

Intervals are typically given in minutes (e.g. 15 min) and seconds (e.g. 10 sec).

Main Set (MS): The main set indicates the key set of the session. All the variables indicating workload will be noted. The main set comprises 40% to 80% of the entire workout.

Marker Set

Marker sets are test sets that appear approximately every 3 weeks throughout your program. The Marker Sets allow you to evaluate your progress by comparing heart rates, workloads, send off times, repeat times, speed, perceived exertion and power with past efforts. Over time, marker sets are the true predictors of your potential race performance.



PE (Rate of Perceived Exertion)

Rate of perceived exertion on a 1 (easiest) to 10 (hardest) scale.

Power

Power measured on the bike include average and peak wattage. While not required, power meters are the best way to measure cycling fitness and progress. Power meters can be used in conjunction with HR, speed, RPE, and overall time or distance.

RI (Rest Interval)

Rest interval between repeats.

RP (Race Pace)

This is your target pace for your goal event.

Speed

Speed is indicated on several marker sets to record your actual training pace or speed. For example, pace per mile in running, miles per hour in cycling, pace per 100 yards or meters in swimming are all commonly used.

Swing Pace

The idea of swing pacing is to teach you a better sense of pace by having larger fluctuations in speed, turnover, breathing rate and heart rate. In a race, the ideal tempo is to maintain a relative steady state output, but you'll often be faced with situations where accelerations and other pace fluctuations are required. We will train for those situations!

Training Zones

(Described in detail on page 3)

- **Recovery**
- **Cruise**
- **Aerobic Zone (A)**



- **Sub-Lactate Threshold (subLT)**
- **Lactate Threshold (LT)**
- **VO₂**
- **Anaerobic Endurance (AE)**
- **Anaerobic Power (AP)**

Swim Workouts

BK (Backstroke): Great strengthening stroke to enhance musculature in the shoulders and upper back.

BR (Breaststroke): Perfect kick to actively stretch the adductors.

Build: The speed within a repetition becomes progressively faster.

Buoy: Pull buoys are placed between the upper thighs allowing the feet to drag and simultaneously keeping the hips elevated. Triathletes tend to over-rely on buoys because their hips ride high and they require less exertion. I will recommend them *occasionally*.

CH (Choice Stroke): This is your choice of stroke inserted in select sets.

Fly (Butterfly): Great for low back.

Fly or BK Flutter: Teaches you to kick from the hips, extend the knee at the completion of each kick, and maximize the pressure on the surface of your foot. Proper form requires full arm extension with fingers interlaced or fingers holding a kickboard with your thumbs on the surface. Elevate your knees to the surface, flicking your ankle and toes on each kick.



FR (Freestyle): Your workouts will predominately be freestyle.

K (Kick): Flutter kick lying on your back or back dolphin in a streamlined position (hands extended straight overhead with one palm on top of the other and upper arms snug against the ears) unless stated otherwise.

Offside breathing: Breathing to your non-dominant side every stroke. It's best to do an entire length breathing to that weak side to adapt to the breathing rhythm.

Pads (Paddles): These enhance stroke technique by concentrating on subtle wrist flexion, setting the elbow, forearm pressure, and hyperextension of the wrist at the finish of the stroke. Paddles also increase the muscular load throughout the stroke cycle. Be careful not to pull with a straight or chopped elbow.

RI (Rest Interval): Rest interval between repeats. This RI is generally static (hanging on the wall).

Sendoff: Some of the advanced sessions indicate a sendoff time. This includes the exercise time plus the rest interval and indicates when you will begin the next repeat; i.e., 6 x 50 on 1 minute. If you swim the 50 in 50 seconds, you will have 10 seconds RI before leaving on the 1 minute sendoff. Typically the workload is expressed as noted on the RPE scale or relation to race pace.

TB (Tennis Balls): Holding tennis balls stimulates the nerve endings in your palms and forces you to concentrate on setting the elbow to engage the forearm on the front end of the stroke (i.e., the catch). When you remove the balls and go back to a regular stroke, you'll recognize the heightened sensation in your palms and be able to better feel the water and hold it to maximize propulsion. This is a good exercise to implement at the beginning of the workout to isolate the front end of the stroke so you can set the platform for better engaging the front end during the rest of the workout.

Bike Workouts

Hill: The ideal grade is between 3% to 5% for intermediate athletes and 4% to 8% for advanced athletes. All hill sets will need to be adapted to your hilly terrain. Overpasses work fine!

VG (Variable Gearing): enhances muscle recruitment by including workloads in the gears that you do not necessarily favor. Variable gear changes during a race allow your body a subtle change in workloads and ultimately result in improved economy. VG is implemented throughout your training program.

The following variable gearing loads (Big Gear, Low Gear and Time Trial Gear) have varying rpm ranges to elicit the desired physiological response. Stay within these ranges during the prescribed workouts. Adding variable gearing is a key element to enhancing muscle recruitment and ultimately elevating cycling proficiency and conserving muscle glycogen. Variable gearing is implemented throughout the training plan.

BG (Big Gear) - slower:

- Seated = 56–64 rpm
- Standing = 60–68 rpm

TTG (Time Trial Gear) - optimal:

- Seated = 86–96 rpm
- Standing = 68–76 rpm

LG (Low Gear) - faster:

- Seated @ 95–110 rpm
- Standing @ 80–86 rpm



Run and Bike Workouts

Bricks: There are various forms of bricks in your program: bike-run, run-bike-run and bike-run-bike. These are often used as marker sets. Remember to minimize your transition time as you change between disciplines!

PU (Pickups): Segments of 10 seconds to 1 minute. Run pickups are at 5k to 10k race pace or slightly faster. Run for 30 seconds, increasing your turnover throughout the segment. Jog lightly for 1 minute and repeat the effort. Pay particular attention to leg turnover and proper form in these short sessions.

Bike pickups start in a Low Gear (higher rpm) and shift up to your Time Trial Gear as the segment progresses. Again, leg turnover (cadence) is the key element of these short sessions.

Calculating Your Training Zones

Achieving success with your training program – and with The Dave Scott Method – requires that you perform your workouts at their specified training intensities.

We'll identify your training zone intensities before starting a training plan, and then we'll recalibrate these zones approximately every 3 weeks during the program.

To determine your personal training zones, you'll choose one of two methods:

- Use actual **race splits** from a recent Olympic distance triathlon; **or**
- Conduct **time trials** in swim, bike and run

The values from these performances will be entered into the [Training Zone Calculator](#) found on the Dave Scott Tri Club website, which will produce ***your personal training intensities*** that will be used for approximately the next 3 weeks of your training.

Testing for each discipline requires patience and regular review. Repeating the tests every 3 weeks during your program will help ensure that you're accurately dialed-in on your interval intensities.

Race Splits

If you choose to enter race splits, then ideally they should be from an Olympic distance triathlon that occurred within the last 60 days.

Time Trials

If you choose to conduct time trials, keep the following in mind:

- Do only one test per day.
- Don't start too fast! Your goal is to achieve the fastest sustained time over the specified time or distance, so you should think about going hard but finishing strong.
- If you overcooked your initial effort and "died" during the time trial, simply stop and repeat the test on the following day.



Closing Thoughts

That should do it. You're now ready to begin!

One of the things I've learned while working with all levels of athletes is that everyone goes through good and bad patches. It doesn't matter how motivated you are, how passionate you are or how great the program... We all have periods where our performance dips. I tell my clients that it comes back to the confidence you have in yourself.

Maintain faith within yourself. Faith brings out the highest probability of success. When you lose faith, you tend to waiver and dip.

You may go through several days when you're not clicking or maybe you're highly motivated but your body is just not responding. The phrase I like to use is "Do what you can do in the moment." This is key. Just do what you can. Things will start clicking again.

As you progress through your training journey, don't be afraid to step outside your comfort zone. This program offers you an opportunity to take risks. This program is designed to challenge you – and it will. Don't run away from these challenges. They are golden opportunities for you to hone and realize your potential.

You may fail in a workout. People fail all the time. Look objectively at all the little failures, but keep moving forward and you will be successful.

Good luck!



About Dave Scott

Dave Scott is the most recognized athlete and coach in the sport of triathlon. He is a six-time Ironman World Champion and the first inductee into the Ironman Hall of Fame.

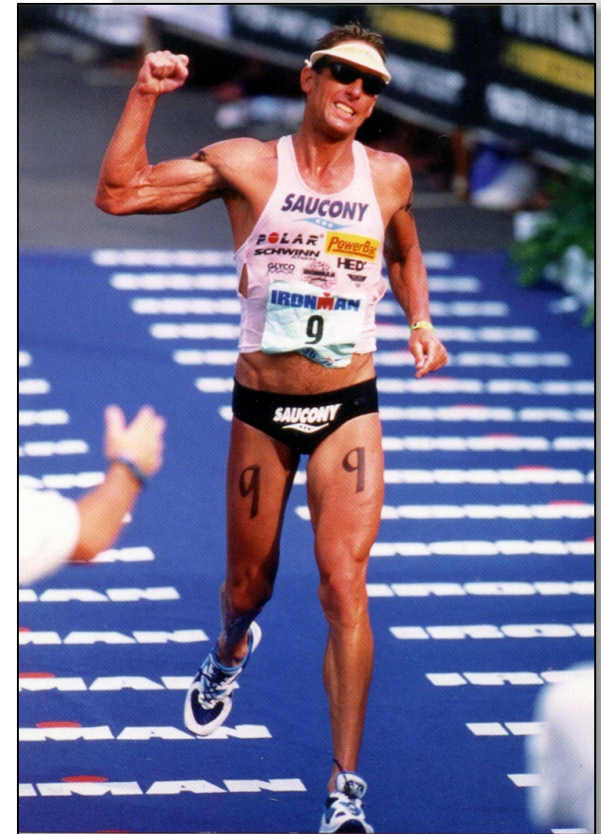
Dave's career in triathlon began with the inception of the sport in 1976. He won his first Hawaii Ironman in 1980 and went on to win again in 1982, 1983, 1984, 1986, and 1987. In 1993, he was honored for his accomplishments in the sport and became the first inductee into the Ironman Hall of Fame. To celebrate, Dave came out of retirement and - at the age of forty and after a five-year absence from competition -- decided to race again. In a stunning and memorable performance, Dave placed second overall. This incredible physical and mental feat earned Dave a new nickname among the triathlon community and he has since been known as "The Man."

Dave currently devotes his time educating and inspiring athletes of all ages and abilities, He combines years of wisdom, wit and creativity with his passion for helping others.

He served as the head coach for Team In Training for over a decade, helping to teach TNT coaches nationwide. He is also a Master Coach at IRONMAN U, coauthoring its rigorous coaching certification program.

Dave is also the founder of the Dave Scott Institute, headquartered in Kailua-Kona and Boulder, CO, which produces cutting edge training camps and devises practical solutions for triathletes by utilizing the very latest science and research..

Dave is based in Boulder, Colorado, and greatly enjoys spending time with his three children and maintaining a healthy and physically fit lifestyle.



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Be sure to visit my website and subscribe to my free newsletter that delivers a steady stream of training and performance nutrition content.

You can also stay in the loop by following me on Facebook, Twitter and Instagram at @DaveScott6x

