THE TRIATHLETE'S TRAINING BIBLE

3rd Edition

JOE FRIEL

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THE TRIATHLETE’S TRAINING BIBLE

3rd Edition

JOE FRIEL

BOULDER, COLORADO
To Team Friel—
Joyce, Kim, and Dirk
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FOREWORD

I have been racing triathlons for more than half of my life. One would think that after so many years of training and racing, I would have learned how to train and race and would understand all of the elements it takes to be consistently at my peak in the sport. But the trials and tribulations of triathlon continue for me to this day.

Joe Friel’s *The Triathlete’s Training Bible* contains all of the information a triathlete needs, whether he or she is a novice, a budding junior, at the top of his or her age group, or competing at the elite level. Unlike the single disciplines of swimming, biking, and running, the combination of all three strengthens almost all of the muscles in your body. Feeling healthy and fit enhances all aspects of your life.

*The Triathlete’s Training Bible* is the most comprehensive triathlon book I have read. It is formatted in such a way that you can find detailed information on any question of immediate concern. What should you do the week before the race? Find the answer in Chapter 10. What types of foods are best for all of the demands you put on your body? Turn to Chapter 16. What distance are you planning to race? See Chapter 9. A key chapter for me is Chapter 4 on training intensity and fighting fatigue. Joe leaves no rock unturned. More than twenty-five years of racing, coaching, and analyzing every tidbit of pertinent information on fitness are compacted into this one book.

Only a handful of people can claim to swim, bike, and run, whether it is a one-hour sprint-distance triathlon or a twelve-hour Ironman. Training for three sports is more time consuming than just preparing for a 10-kilometer running race. Because we must juggle work, family, and numerous other affairs in our busy lives, triathletes need to use their time to train wisely. *The Triathlete’s Training Bible* is your coach. It will maximize the limited training time you have in order to prepare you to race at an optimal level.

For those of you who are constantly striving to improve your performance, this book will lead you in the right direction. Keep tri-ing!

—Wesley Hobson

Many dedicated endurance athletes don’t need to be told what to do—they need to be told what not to do.

—SCOTT TINLEY, PROFESSIONAL TRIATHLETE

MULTISPORT IS BOTH amazingly simple and incredibly complex. Its simplicity is apparent to anyone who has ever enjoyed swimming, riding a bike, or running. All are easily accomplished by children, and it often takes only a little practice for people of all ages to advance to higher levels. Finishing a short-course triathlon or duathlon is achievable by almost anyone who dabbles in the sport. Multi-sport’s complexity becomes apparent as soon as the novice decides to improve performance. Questions immediately arise, such as, Should I do all three sports each day? How long should I work out? Why am I tired all the time? What should I eat?

The experienced multisport competitor also has questions, but these are born of a higher level of understanding of the intricacies of the sport. Seasoned athletes ask, How can I predict a fitness peak? What’s the best way to blend workouts for maximum fitness gains without overtraining? Is there a way to speed recovery so I can train hard more frequently? In fact, it appears that the more experienced the athlete, the more complex the training issues become.

While it’s the purpose of this book to answer such questions, understand that there is not one and only one answer for each. Because of individual differences, there are as many ways to train for multisport as there are triathletes and duathletes. Yet there is much that athletes—regardless of experience, age, gender, and natural ability—have in common. All rely on the same fuel sources, all have the same number of bones and muscles that are put together in the same manner, and all have nervous systems that operate in the same way.
It is when it comes to the specifics of training that each athlete is unique. There are individual motivations for racing, different genetic capabilities, varied time constraints, and unique goals. Since the spectrum of such possibilities is wide, the key to success in multisport does not come from following a one-size-fits-all training regimen. If that were so, this book could cover the topic in a few pages.

Success in multisport racing comes from understanding two aspects of training: the commonly accepted principles of training and your own exceptional needs. What this means is that training is both science and art. The promising athlete is one who understands the training aspects and blends this knowledge into a systematic training program.

**SYSTEMATIC TRAINING**

Multisport training is much like putting a jigsaw puzzle together. To the novice in either endeavor, the many pieces of the puzzle can be overwhelming. What comes first? It’s like the old saying “you can’t see the forest for the trees.” If the details of jigsaw-puzzle solving, just like multisport training, get in the way of seeing the big picture, wasted effort and time are a certainty. It will take far longer to get to the end result of a completed puzzle, and there is a great possibility that you’ll give up early in the process.

The way to solve any puzzle is to have a system, which is nothing more than a set of guidelines to get you organized. An elaborate or complex system isn’t needed; a simple one will work just as well. The less time you have available to put the puzzle together, the more critical the system becomes. For the puzzle, you could start with these guidelines to simplify the task and make efficient use of time:

- Spread the pieces out on the table so all are seen.
- Put pieces of similar colors together in groups.
- Start by putting the edge pieces together.
- Work only one section at a time.
- Position completed sections relative to the finished product.
- Try to connect the finished sections.
- Protect the finished sections so they aren’t broken up by the wind or the family cat.

The most important aspect of a jigsaw-puzzle system is to keep the picture of the finished puzzle on the box lid where it is visible. You have to know what the finished product is supposed to look like. Without the picture in front of you, the task would be an immense one; it would take far longer to complete the puzzle and you would continually have doubts about your progress.

Anyone who has ever worked on a complex jigsaw puzzle knows that it takes a long time. Working straight through to completion could be an all-night ordeal, and if you decided to tackle it that way, puzzle burnout would be likely. By the time you finished putting the puzzle together, you wouldn’t want to see it again or even think about doing
another one for a long, long time. To prevent burnout, you would need to take longer than a night to do the puzzle, and you would need to take frequent breaks. While most of the breaks would be short, it would be best if some of them were quite long. That way, every time you came back to the puzzle, you would start with renewed enthusiasm and heightened creativity.

Suppose researchers in fact did a study and found that people who took breaks became better at putting together jigsaw puzzles than people who stayed up all night long doing them. Such a study would add some science to the puzzle-solving project. Here, science is really nothing more than methodically determining a way of acting that works. Without a methodology, the task of putting a puzzle together—or training for multisport—is a random activity based largely on luck.

So that’s the science, but where does the art of a training system come in? Art is the aspect of training in which you learn to better understand yourself as an individual. To use the puzzle analogy one last time: Art, or the ability to make creative decisions based on intuition and experience, plays a role because

- Not everyone’s puzzle is the same—some have big puzzles, and others have small ones;
- Certain areas of the picture are fuzzy;
- Some pieces of the puzzle are more important than others;
- Pieces may get lost or broken along the way and need to be replaced;
- Some people have precious little time to work on their puzzles;
- The part of the puzzle you are working on at any given time is part of a bigger picture that also needs solving;
- Others may tell you what a bad job of puzzle solving you are doing;
- The puzzle may not be coming along as well as you had hoped, as it is taking longer to solve than you anticipated;
- Some sections of the puzzle can seem monotonous and frustrating.

This book will help you devise a personal training system employing both science and art. The science part is easy to describe; the art of training can be described, but it is learned only by doing. The system you devise will differ from those of your training partners. It won’t duplicate the system used by the pro athlete you most admire. It will work only for you. For any system to work you must have confidence in it, derived from understanding the “whys” and “hows.” But you must also remain open-minded, as no system is foolproof, and no one has all the answers.

**PHILOSOPHY OF TRAINING**

Because it is critical to success in multisport, the art of training needs a firm foundation. The way to establish that foundation is with a personal training philosophy. Although you have probably never thought about it, you already have one. Every athlete does, since
training decisions must be made every day, and the answers spring from an underlying personal philosophy. For example, your training philosophy is reflected in the decisions you make when you

- Feel tired, but have a hard workout planned;
- Can’t decide which workout to do;
- Are afraid you will lose your fitness while taking time off;
- Know your competition is doing more than you are;
- Dread doing a certain workout;
- Feel like your training partners are going too fast;
- Know your weaknesses, but prefer working on your strengths;
- Sense you can do only one more interval;
- Think you could do more, but you are not sure;
- Have a bad race;
- Seem to have lost fitness.

If your philosophy is “More is better—always train as hard as I can,” you will answer these questions in a certain way. In fact, this philosophy of training is quite common in multisport and is the leading cause of breakdown from illness, injury, burnout, and overtraining. By adopting a philosophy that is more moderate, you can avoid such problems and see improvements in your racing performance.

A person with a completely different training philosophy would answer the same questions very differently. Suppose, for example, someone took the following statement as his or her basic training philosophy: An athlete should do the least amount of the most specific training that brings continual improvement. What does this mean? Let’s examine the key parts to better understand it.

**Least amount** implies that less is better. It may sound counterintuitive for endurance training, but most successful athletes support the notion that small fitness gains made over a long time are better than quick fitness changes over a short time. We all know that “too much, too soon” leads to breakdown, yet for some reason we keep doing it.

**Most specific** has to do with how daily workouts benefit triathlon- and duathlon-specific fitness, which is the ultimate goal of training. Each and every workout should have a purpose, whether it’s to improve fitness, maintain fitness, or recover. Getting the balance of these three factors right is the key to success.

**Continual improvement** has to do with taking a long-term approach to training. Making gradual workout changes from week to week produces fitness that stays with you longer and ultimately allows you to reach a higher level than making big changes does. Your body is prepared to handle changes of a bit more than 10 percent at a time. Doing more than what you are physically capable of absorbing is worse than simply wasting effort, as it often leads to breakdown.

The idea of placing limits on training is a scary thought for some. Many athletes are so used to existing on the edge of overtraining that it seems a natural state. Such athletes
can seem as addicted as drug users. Those who abuse training are not becoming better athletes, but they can’t bring themselves to change. That is the way addictions are. Changing your personal training philosophy means taking a risk by trying something new and different, but the potential rewards are great.

**CONSISTENT TRAINING**

Consistent training, not extreme training, is the way to attain the highest possible fitness. Illness, injury, burnout, and overtraining can cause training breakdown, and extended or frequent downtime from such problems inevitably results in a loss of fitness and the need to rebuild by returning to previous levels of training. Multisport athletes who experience these problems with some regularity seldom achieve their potential in the sport.

Consistency must serve as the ultimate standard in all training decisions. It results from following a philosophy such as the one described above, emphasizing the least amount of the most specific training that brings continual improvement. The key is to strive for moderation in training while resting at regular intervals.

**MILDATION AND CONSISTENCY**

Your body has limits when it comes to endurance, strength, and speed, and you should seldom test them. By generally staying within those limits, while stretching yourself just a little in a well-designed training program, you can avoid breakdowns and ensure consistent training results. Aim to finish workouts feeling as though you could have done more. For example, when there is only one interval left in you, and digging deep is the only way to complete it, stop. Don’t do it.

The time to abandon a workout is when it is perceived as very hard, your speed has decreased noticeably, or your technique has changed. For athletes with a strong work ethic, this is difficult to do. For this reason, many successful athletes have coaches; training under the watchful eye of an objective person whose emotions are not linked to the workout can help you to avoid breakdowns. Self-coaching requires you to think objectively and unemotionally. Although this is possible to do, it is difficult for many of us. A self-coached athlete is often unsure whether to continue or stop. Doubt is a good reason to discontinue the session. When in doubt, leave it out.

Hard workouts progress through a “discomfort-hurt-agony” sequence. Be assured that there is nothing beneficial about reaching the “agony” stage. There are benefits achieved at the “hurt” level, but beyond that, the risk of injury and overtraining rises dramatically. There is no scientific evidence to support the need for supreme effort in training, but there is a great deal that supports the notion of moderate stress as beneficial.

The hardest workouts should occur sparingly throughout the year. Especially in the few weeks immediately preceding a major race, you will need to be judicious. That is because it only takes a short time to reach ceiling levels of the extreme components of
fitness. As you will see in a later chapter, a season should include only three or four of these major events. Training at the highest intensities year-round is ultimately detrimental to performance.

During the times of the year when you are not doing intense, race-specific training, it is best to devote your workouts to building or maintaining endurance and strength, recovering from a race or race season, or refining your skills.

REST AND CONSISTENCY

Intellectually, multisport athletes know they should rest, but emotionally they fear that taking an appropriately timed break, even for a couple of days, will lead to a loss of fitness. Few fully appreciate the physiological benefits that accrue during rest, especially while asleep. But it is while we are sleeping that the body releases growth hormone to repair damage from the day’s training stress. Sleep enables the body to shore up any of the systems weakened by training. Without adequate sleep, fitness is lost regardless of how intense or how long an athlete’s workouts are. When the intensity and duration of training increase, rest must also increase to maintain balance in the body. Besides sleep, rest includes regular easy training days, days off from training altogether, frequent recovery weeks, and extended breaks from training at the end of a race season.

There is no scientific evidence to support the idea that appropriate breaks in training will lead to a loss of fitness. There is, however, a mountain of research showing that frequent rest is beneficial to fitness. A well-rested triathlete looks forward to workouts, enjoys doing them, feels sharp and in control during training sessions, and grows stronger afterward. The chronically tired triathlete drags through workouts only by the force of extreme willpower, performs sluggishly, recovers poorly, and derives little benefit. You will not improve without adequate rest.

TRAINING LESSONS

I was once asked to talk on the most important lessons I had learned in nearly three decades of coaching. It was a good exercise, as it required me to summarize my coaching philosophy and highlight the most important points. Some of what I’ve learned may not make sense at first to a dedicated endurance athlete. But trust me, these lessons came from years of working with athletes just like you. Here are my guidelines for multisport athletes. Bear them in mind as you read through this book and learn to create your own personalized training plan.

LESSON #1: HAVE A CLEAR GOAL

Most athletes think they have goals. Few really do. What most call goals are actually wishes. They are vague desires for grand achievements that are poorly defined. These also often include the word “faster.” When first starting a coaching program for an athlete,
Training for endurance sports involves taking risks. Some of the risks you take may even be life threatening, but you can minimize them by taking certain precautions.

Cycling carries a high amount of risk because of the reliance on the machine and because of the distances a triathlete must ride on the open road in training. To minimize the danger, avoid heavily trafficked areas whenever possible, and always wear a helmet. Ride only with safe groups, not with people who run stop signs, ride in between traffic, or generally ignore traffic laws. Never take undue risks on steep descents while riding. And before every ride, test your brakes, check the quick releases to make sure they are tight, examine the tires to see if they have any cuts or show signs of too much wear, and tighten any loose bolts.

Swimming can also be risky, particularly if you train in open water. Never swim in open water alone. Always swim with a partner, and ideally, with a kayak “spotter.” Kayakers often volunteer for organized group training swims in open water. Similarly, if there is no lifeguard present for a pool swim, make sure you train with a partner.

Running on open roads requires safety precautions similar to those you would take in cycling. Avoid heavily trafficked roads. If you run within an hour of dawn or dusk, wear reflective material. Be aware of whether the sun will be in drivers’ eyes, making it difficult for them to see you. As for which side of the road to run on, it is your choice—the law says you must run on one side or the other. (This is a contrast to cycling, as cyclists must ride in the direction of traffic, as close as practicable to the right.) I prefer to run against traffic so I can see what’s coming toward me, but if you do so, be aware of drivers about to turn onto the road you are on, because they may not be looking in your direction when they enter the intersection. Finally, run only with safe groups who respect traffic laws.

Also, whether you are cycling, swimming, or running, if you experience any unusual physical conditions, such as chest pain, radiating arm or neck pain, an unusually high or erratic heart rate, joint soreness, back pain, unusual muscle or tendon discomfort, or blood in the urine, be sure to inform your doctor right away. Such conditions should also cause you to stop the workout immediately. Let’s have a safe and successful season.

I help them turn their wishes into goals by asking questions such as How much? When? Where? Is this goal a good stretch for you? Is it realistic? Another good question to ask in order to better define one’s goals is How will you know if this season was successful? We do talk about dreams when I ask What is the greatest accomplishment you’d like to achieve as a triathlete? Long-term dreams can eventually become goals. Knowing precisely what
you want is critical to success in triathlon just as it is in life. Goal setting is discussed in greater detail in Chapter 7.

**LESSON #2: DETERMINE WHAT STANDS BETWEEN YOU AND YOUR GOAL**

A good goal will stretch your limits. Pushing yourself to reach that goal obviously requires that you improve some aspect of yourself, and you need to identify whatever that “something” is. Instead of training randomly by doing what you’ve done in the past, what your training partners want to do, or the workouts some pro does, you should isolate and improve the quality you are lacking. This is kind of an engineer’s way of looking at training, but it works. I call it “fixing the limiters.” You’ll find more on this in Chapter 6.

**LESSON #3: PLANNING IS NECESSARY TO ACHIEVE A BIG GOAL**

This may sound boring, but planning is at the heart of training, especially when your goals are big ones. I know you may have heard good athletes say that they don’t plan and do quite well anyway. I’d wager they really are following a plan, but it’s not in writing. The plan is in their heads. Good athletes don’t become good by training randomly, and you won’t either. This book is essentially about planning. Chapter 7 provides the details on how to map out a seasonal plan. Chapter 8 covers race-week planning, and Chapter 9 discusses race-day planning.

**LESSON #4: MEASURE PROGRESS TOWARD YOUR GOAL**

There’s nothing worse than thinking you are making good progress toward achieving your goal and later finding out on race day that you are not physically ready. Had you known earlier that you weren’t improving as expected in some aspect of fitness, you might have had time to correct it by changing your training. There are many ways to assess fitness progress. Chapter 5 addresses some of these.

**LESSON #5: DO ONLY THE TRAINING NECESSARY TO ACHIEVE YOUR GOAL**

This training philosophy, though noted above, is worth repeating. When I was a much younger athlete, I thought my success depended on training as much as possible. That approach led to frequent injury, overtraining, illness, and burnout. It took me many years to figure out what I should be doing—only the training that was necessary to achieve my goals. Once I cut out the excessive stuff, I got better as an athlete. This book will return again and again to the theme of identifying what is important and then doing only that.

**LESSON #6: MENTAL FITNESS IS AS IMPORTANT AS PHYSICAL FITNESS**

Chapter 2 discusses mental toughness. I believe the key mental skill is confidence. Of all the factors I consider when talking to the athletes I coach, this is the most important. What I look for in athletes is a quiet, “can-do” attitude. This is the common denominator
Lessons

Lesson #7: Skill Is Critical to Athletic Success

In endurance sports, with the possible exception of swimming, athletes tend to downplay or even disregard technique. Most athletes, including elites, have lots of room for improvement in their sport-specific skills. As skills improve, less energy is wasted, which means you can go faster with the same effort because your movements are more economical. Skills and economy are discussed in Chapter 12.
LESSON #8: TRAIN FOR THE UNIQUE DEMANDS OF THE GOAL RACE
Every race is unique. The principal factor is race distance, such as sprint- or Ironman-distance. Beyond this are other, less obvious factors: A course may be over hilly, rolling, or flat terrain; the water may be rough or calm; there are wetsuit and non-wetsuit swims, hot and cold temperatures, courses with lots of turns or very few turns, off-road and road courses, morning and afternoon start times, races in which you will use a disk wheel and those in which you will not, and a multitude of other variables. Your training, as you get closer to race day, should take on more and more of the unique characteristics of the race you are preparing for. In Chapter 10, you will learn how to write a race plan that takes key variables into consideration: Learn to take charge of the factors you can control, and learn how to deal with those you can’t.

LESSON #9: RECOVERY IS JUST AS IMPORTANT AS HARD WORKOUTS
Training is composed of two elements: hard work and recovery. One without the other makes for an ineffective program. I’ve found that most triathletes have no problem at all with the hard work part. In fact, they seem to thrive on it. Where most need help is with recovery. Left to their own devices, most triathletes will work too hard and rest too little. And since it is during rest that the body adapts and becomes fitter, training overly hard and resting too little is counterproductive. Chapter 11 takes a closer look at recovery.

LESSON #10: FOCUS YOUR LIFESTYLE ON SUCCESS
The bigger your triathlon goals are relative to your abilities, the more things in your life that must be focused on achieving your goals. If your goal is to complete a sprint-distance race, you can afford to be a bit sloppy with nutrition, sleep, stress, training partners, friends, stretching, equipment, workout analysis, and strength work and still do well. But if your goal is to win a national championship or qualify for Ironman Hawaii, you will need to get everything in your life pointed at triathlon success. Since the people who ask me to coach them are aiming for big goals, I spend a lot of time helping them focus their lifestyles on success. Chapters 13 through 16 address most of these issues.

It’s worth adding to this list one last bit of advice—have fun. This may seem obvious, but some athletes are so focused on achieving the right numbers in their logs that they’ve forgotten why they got involved in the sport in the first place. They’ve taken the fun out of it. Many of the pros I talk to are amazed at how much training time age groupers do on top of working 50 to 60 hours per week, raising a couple of kids, getting them to soccer practice, taking care of the landscaping, doing volunteer work, and myriad other responsibilities. By comparison, the pros have it easy; they train 30 to 40 hours per week with a few naps sprinkled in. But they also tell me that if it ever stops being fun they will quit racing and get a real job. Fun is the reason we participate in triathlon. Smile more. Frown less.
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