A RENEGADE PATH TO YOUR FASTEST MARATHON

# HANSONS MARATHON METHOD

LUKE HUMPHREY WITH KEITH & KEVIN HANSON

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# FOREWORDS

The Hansons Marathon Method has been a work in progress for several decades. In 1978, after running my first marathon, I became a sponge for any information involving the marathon. What I found were cookie-cutter approaches reproduced from publication to publication, always including a long run that was usually 20 miles in American publications and 30 kilometers (18.6 miles) in foreign magazines. I came to find the reasoning behind this long run prescription was simple: These distances were round, even numbers. That's right, there is no supporting science justifying those distances, just convenience. That realization was a huge wake-up call for us. I knew if all these approaches to marathon training were just guesswork, then I needed to come up with something that made better sense.

The Hansons Marathon Method teaches a strategic and scientifically grounded approach to everything from the long run to speed workouts to pacing. Luke Humphrey has artfully communicated these training methods in this book, answering hundreds of questions we receive from runners on a weekly basis. In addition to seeing the positive results firsthand as an elite runner, he has an extensive background in exercise physiology. Not only has he truly lived the Hansons Marathon Method, but he is also qualified to explain the science behind this practical approach to training. I hope that you enjoy the results as much as we have.

—KEVIN HANSON

*Cofounder, Hansons-Brooks Distance Project*

*Co-owner, Hansons Running Shops*

I am excited to have Luke Humphrey draw upon his scientific knowledge, personal running experience, and coaching expertise to help explain the Hansons Marathon Method to runners in much greater detail than short magazine articles can provide. Luke has been a successful member of the Hansons-Brooks Distance Project for more than seven years, during which time he obtained a master's degree in exercise science. Over the past four years, he has also led the Hansons Running Shops marathon classes, guiding hundreds of beginner marathoners through their first marathon and many veteran marathoners to new personal bests.

Although the coverage of our training program in both *Runner's World* and *Running Times* has piqued interest in the system over the years, it also caused confusion. This book helps answer existing questions and provides guidance for those who desire to follow this proven training system. I cannot think of a more qualified person to supply this information to the general running public. Wishing all of you personal bests and many years of continued joy from your participation in the world's greatest sport.

—KEITH HANSON
*Cofounder, Hansons-Brooks Distance Project*
*Co-owner, Hansons Running Shops*

## CHAPTER 1

# HANSONS TRAINING PHILOSOPHY

WITH THE HELP OF EXERCISE SCIENCE RESEARCH and physiological evidence, Kevin and Keith Hanson have built their marathon business. I came on board as one of their athletes in 2004, and two years later, I was presenting their training programs to runners across the country. Having been rolled out for their first marathon training programs in 1992 for the Detroit Marathon, the Hansons Marathon Method was well tested by the time I entered the picture. The inception of these plans was driven by the brothers' frustration with the existing programs on the market. The Hansons didn't feel that those programs prepared runners for the demands of the marathon. So rather than focusing on minimal training during the week and loads of mileage on Saturdays and Sundays, they sought to create a more well-rounded program.

In the time since the Hansons first introduced their training schedules, the sport has experienced what some call a "second boom." The first running boom hit in the 1970s, with marathon mania following a couple of decades later. In 1976, there were roughly 25,000 marathon finishers in the United States. By 1990, the number had increased nearly tenfold to 224,000 finishers, but it didn't stop there. In 1995, 2000, and 2005, there were 293,000, 353,000, and 395,000 marathon finishers, respectively. By 2010, approximately 507,000 runners crossed a marathon finish line somewhere on American soil. That's a growth of nearly 30 percent between 2005 and 2010—pretty phenomenal.

But as the numbers of finishers have increased, so have the finishing times. From 1980 to 2010, the average time for men went from 3:32 to 4:16. The average finishing time for women faded from 4:03 to 4:42 (www.runningusa.org). The slower times are undoubtedly a result of those higher finishing numbers. In the 1970s and 1980s, the smaller marathon population largely consisted of hard-core pavement pounders who trained with time goals in mind. Today, however, the demographic has evolved. What was once a sport solely for serious elites and subelites is now an activity accessible to the masses, many of whom simply want to cross the finish line.

In my time as both a runner and a coach, I have encountered three types of marathon hopefuls:

> **Veteran runners:** This group has logged plenty of miles over the years and may have run a marathon or two in the past. They are looking to take their previous marathon performances to the next level.
>
> **Recreational runners:** While this group is new to marathoning, they are not running newbies, having completed a number of shorter races. This group is looking to establish a marathon baseline, usually with plans to run another marathon in the future.
>
> **Novice runners:** The novice group tends to include new runners looking to knock "26.2" off their bucket list, as well as those running for charity groups. Many of these runners will leave marathoning behind once they finish the race.

That third group of novice runners is the trickiest to coach. Kevin and Keith are actively involved in Team in Training (which raises money for the Leukemia Society), and I coach for southeastern Michigan's Determi-

Nation through the American Cancer Society (which raises money for a wide range of cancer-related causes), so we are well acquainted with these runners. The main hurdle is that they are often convinced through popular media that running 3 days a week is the best way to train for a marathon. These approaches work to persuade them that marathon training can be done with relatively little priority shifting: Buy a new pair of shoes, make time for a run a few times a week, and you'll be ready to make the 26.2-mile journey a few months later. While the main goal for this group tends to be simply to finish the race, running only 3 days a week is not the optimal way to develop a runner regardless of aspirations. It not only creates runners who are ill prepared for the marathon distance but also doesn't encourage retention within the sport.

Consider this: Every three years, about 50 percent of the customer base of a running specialty store tends to consist of brand new runners. So, if a store services 40,000 runners, every three years 20,000 of these runners are new to the sport. While it is fantastic that so many new people are motivated to begin running, one is left to wonder what simultaneously accounts for such a high attrition rate. It seems as though a good number of runners are lured into the sport by promises of big payoffs with few sacrifices. They are told they can complete a marathon with minimal adjustments to their existing schedule and lifestyle, thus the emergence of the minimal training plan.

These same runners often have a rotten marathon experience because they are undertrained, and so it is no wonder that few of them return to the marathon distance. When one looks at the most popular of the minimal training programs, a number of similar characteristics arise:

**Low mileage:** Beginning runners are assigned 35–40 miles for a couple of weeks as their highest volumes, and advanced runners between 45 and 55 miles per week.

**Low frequency:** Beginners are told to run 3–4 days per week, and advanced runners 5–6 days.

**Megalong runs:** Most of the programs reach 20 miles, and a few peak at 26 miles. These long runs are generally prescribed during the peak mileage weeks. Some of the programs place a major run on Saturday before the Sunday long run, meaning that 60–75 percent of the weekly mileage is run in 2 days.

**Very long duration:** Most of these plans span 24–32 weeks. This is unsurprising, because with such low mileage, the body needs that long to adapt.

**Misplaced intensity:** In the 3-day-per-week programs, all runs are very high on the intensity scale (70 percent or higher of $VO_2$max) and are accompanied by a long run that represents 40–50 percent of the weekly mileage.

A training plan with minimal mileage and 3 running days per week can be a great way to ease into the sport and build a foundation without getting injured; once the decision is made to make the leap to the marathon, however, it simply isn't enough. While these plans usually assist runners in reaching their main goal, which is to finish, the by-product is often a dislike of the sport. Since the greatest predictor of adherence to any type of exercise is enjoyment, this certainly isn't a recipe for long-term success in running.

**Cumulative fatigue** is the accumulation of fatigue over days, weeks, and even months of consistent training.

By charting a course for a successful and enjoyable marathon experience, the Hansons Marathon Method seeks to encourage the crossing of multiple marathon finish lines. Unlike a number of the other popular training plans out there, our approach will transform you into not only a marathon finisher but a longtime marathoner. We take a straight-talk approach when it comes to teaching you about marathon training; we won't sugarcoat, offer any supposed shortcuts, or treat you with condescension. Indeed, the marathon wouldn't be a big deal if it didn't require a little blood, a lot of sweat, and perhaps a few tears.

What follows in this chapter is a closer look at the philosophies that lay the groundwork for the Hansons Marathon Method. These building blocks rest on the teachings of famed coach Arthur Lydiard. Widely credited with popularizing the sport of running, Lydiard led a long line of runners to realize their Olympic dreams. As a result, his ideas about training had a major influence on the development of our methods. Taught by Lydiard, the idea of cumulative fatigue serves as an underlying foundation. Cumulative fatigue comes from a slow buildup (but not to the point of overtraining) of fatigue via the days, weeks, and months of consistent training. In other words, cumulative fatigue results from repetitive training that doesn't allow for full recovery between training days. It emphasizes a concerted, strategic approach to marathon training rather than a number of disparate training days strung together at random. The fundamental principle of cumulative fatigue runs throughout the Hansons Marathon Method and consists of five components. If you omit one component of the cumulative fatigue philosophy, you interfere with the others, creating a domino effect that limits the physiological adaptations necessary for successful marathoning. These components are:

Mileage
Intensity
Balance
Consistency
Recovery

## Mileage: Strategic Weekly Volume

The biggest problem with many marathon training plans is that they are tailored to fit what the average runner wants, not what he or she needs. These programs usually place a majority of the weekly mileage on Saturday and Sunday, when runners have the most time available. Roughly the same amount of mileage is then spread over a few days of the workweek. This can mean that all the prescribed weekday runs are higher-intensity workouts, leaving few opportunities for easy runs and the accumulation of important marathon mileage. Since the weekday runs in those plans are mostly high-intensity, it takes a runner longer to recover, causing the easier runs to fall by the wayside. Even if these plans did specify running on the interim days, runners would likely be too tired from the previous workouts.

Adequate weekly mileage plays an important role in the cumulative fatigue process. Increasing mileage comes along with increasing training from 3–4 days a week to 6 days a week. This doesn't necessarily mean adding intensity but rather more easy mileage. The Hansons Marathon Method shows you how to add that mileage while controlling your pace to avoid overworking yourself. Consider the fact that runners training for a 5K will put in four to six times their actual race distance in mileage each week. It then makes sense that runners training for a marathon would increase their weekly mileage from those 5K training volumes (see Table 1.1). Although the average marathoner won't put in four to six times the marathon distance on a weekly basis (100–150 miles), it is reasonable to run 2–3 times the distance per week (50–70 miles).

**TABLE 1.1 WEEKLY MILEAGE BASED ON LEVEL AND EVENT**

| | BEGINNER | COMPETITIVE | ELITE |
|---|---|---|---|
| **5K** | 15–25 | 40–50 | 90+ |
| **10K** | 25–30 | 45–55 | 90+ |
| **HALF-MARATHON** | 30–40 | 50–60 | 100+ |
| **MARATHON** | 40–50 | 60–70 | 110+ |

Although runners preparing for the marathon realize they need an increased volume of mileage to be ready to toe the line, the idea of 50–70 miles per week may sound intimidating. New runners will look at what they are scheduled to run 12 weeks into the plan and doubt their ability to reach that point. What those runners lack is confidence. We tell runners to start at the ridiculous, or what they think is completely beyond their capabilities, and work backward until they reach a point that is both mentally and physically manageable. While 60 miles per week may sound ridiculous on day one, focusing on what you have to do in the present is key. You will be surprised by what you are able to handle a few months down the line.

Again and again we have seen that athletes who give their bodies adequate time to adapt to new training stresses are able to tolerate much more than they ever imagined to be feasible. Our programs work to take you up the mileage ladder one rung at a time, starting with lower mileage and gradually increasing both mileage and intensity. As I like to say to our athletes, “If you want to build a house, you must first create a structure to hold it up.” The volume of mileage builds a foundation that allows all the other variables to work.

## Intensity: Physiological Adaptations

In addition to increased total mileage, our plans stand apart from the rest in terms of pace and intensity. These factors are inextricably linked because if workouts are overly difficult, you’re going to be too tired to reach your weekly mileage quotas. In the Hansons-Brooks Distance Project the competition can be fierce among our elite athletes. Teaching proper pacing is perhaps our biggest struggle. During workouts, Kevin and Keith always seem to know when an athlete has developed an “I know you’re fast, but I’m just a little bit faster” mentality toward another runner. As a means of emphasizing the importance of pace and punishing runners who run faster than they are instructed to, they dole out push-ups for every second someone is too fast. After a few push-ups, the athlete inevitably pulls back on the reins and falls into step.

While we won’t make you do push-ups when you falter in your pacing, pacing does remain an important component of cumulative fatigue. The majority of our suggested mileage is at anaerobic threshold (lactate threshold) pace or slower. You may wonder, “How am I supposed to get faster if I’m running slower?” In the next chapter, we will explain the many great adaptations that come with endurance training, such as mitochondria development, muscle fiber adaptations, and ability to burn fat as fuel. Exercise physiologists have discovered that these adaptations are best elicited through a pace that is slower than anaerobic threshold pace. This improves your running by pushing the aerobic threshold, anaerobic threshold, and aerobic capacity up from the bottom, instead of trying to pull them up from the top. Whether it is an easy running day or a hard workout, executing the task at the appropriate pace is integral to the entire marathon training system.

Easy runs are often misunderstood as junk mileage or filler training. The truth is, easy runs make up a big percentage of the training week, and when they are run at the optimal intensities, they promote a wide array of favorable physiological adaptations. Despite this fact, both novices and experienced runners struggle with properly pacing these relaxed workouts. Newer runners tend to run their easy days too hard because the gradual training plan feels too easy. Most of the time, the intensity evens out as mileage increases and the runner is too tired to maintain that pace throughout the week. However, as a coach, I would prefer to have you adjust the pace to your marathon goal and train properly from day one. This allows you to increase your mileage and intensity safely over weeks and months. More experienced runners tend to get overzealous in their training, believing that faster is better, especially for those moving up from running competitively at shorter distances. Runners in this situation will quickly be benched as a result of overtraining if they don’t temper their excitement and allow easy runs to truly be easy. Regardless of what level you’re at, when we instruct you to run “easy,” we really mean easy. Once you add in hard workouts, these easy days will serve as active recovery to allow your body to bounce back and prepare for the next workout.

Proper pacing during hard workouts is equally vital. We cannot stress enough that workouts are designed to spur specific physiological adaptations; they are not to be run as hard as you can to see who is the last person standing. For instance, tempo runs and strength workouts develop the anaerobic threshold, but that doesn't mean you should be running a tempo workout faster than anaerobic threshold pace. Similarly, speed workouts develop aerobic capacity and should be run just under your maximal aerobic capacity, not beyond it. Imagine if you are instructed to run 6 × 800-meter repeats at 5K pace. Let's say this pace is 6:00/mile, or 3:00 for 800 meters. If you do the first three intervals at 2:45, 2:45, and 2:55, there's a good chance the last three will be around 3:10, 3:15, and perhaps 3:10. While you averaged 3:00, you failed to hit a single interval at the prescribed pace. This means that you didn't accumulate any training at the desired pace, which was specifically set to stimulate aerobic capacity. The first three were too fast, which exceeded $VO_2$max, producing anaerobic energy and lactic acid. The last three were then progressively slower due to fatigue and lactic acid buildup. In the end, you drove yourself into the ground without gaining any major physiological benefits.

Now you understand why Kevin and Keith assign push-ups. By keeping your paces in check across the training spectrum, you'll tolerate higher training volumes. You'll also be more consistent in training because you won't be so worn-out that you need to take unscheduled days off or modify workouts. Cumulative fatigue is designed to make you tired, but running paces faster than prescribed will put you beyond the point of being able to recover sufficiently. That really is junk mileage.

## Balance: Training Equilibrium

One of the major downfalls of existing marathon training plans is that they lack balance. There tends to be a standard emphasis on the long run, with the rest of the days of the week spent recovering from that one workout. When the long run serves as the primary focus, training consistency, weekly volume, recovery, and intensity are all lost. To fully reach your potential as a runner, all the physiological systems must be incorporated into training. Remember, nothing is make-or-break. The long run won't make your marathon if it's the only thing you focus on. This is why our program emphasizes a balanced approach to training.

The Hansons Marathon Method presents you with two types of runs: easy and something of substance (SOS). SOS runs include speed workouts, strength workouts, tempo runs, and long runs. Think of these runs as workouts that require more effort than do easy days. By varying the training, you reap the necessary physiological benefits, in addition to maintaining motivation. If variety is the spice of life, you'd better include a good amount of it in marathon training. In the same way your mind gets bored with repetition, so does your body. When you cycle your workouts and stress each individual system, you stimulate a steady rate of physiological adaptation. By giving time and energy not just to the long run but also to easy, strength, speed, tempo, and recovery days, you'll be a stronger, more balanced marathoner. There is such a thing as too much of a good thing. When you balance your training, you'll be sure to get just the right amount of each of those things.

## Consistency: Sticking to the Game Plan

As a coach, I find many runners struggle with training consistency. One week they run 3 days, the next 4 days, and the next week maybe only 2 days. This is unsurprising because each week brings its own challenges and surprises: Your boss imposes a last-minute deadline, your car breaks down, or your child gets sick. The unpredictability of life can make sticking to a training plan difficult. While training adjustments are necessary at times, a regular running schedule remains important.

Physiologically speaking, inconsistency in training makes for a never-ending struggle to maintain even a baseline of fitness. While adaptations can occur rapidly with proper training, they can also be lost with just a couple of weeks of inconsistent running. For instance, if you train 5 days a week for 3 weeks, a noticeable improvement in fitness will take place; if, however, those weeks are followed by 2 weeks of training only 2 or 3 days a week, your fitness gains will begin to retreat. It then requires 2 more weeks of consistent running to get back to the previous level of fitness. In the end, 6–8 weeks of running went by just to get you back to where you were at the third week. If life intervenes, modify training, but don't skip it. Something is always better than nothing.

To achieve this consistency, you must establish attainable goals and plan ahead. If you set your sights too high, you're likely to get discouraged when you discover you have too much on your plate. Conversely, if you set them too low, you get bored. Properly placed goals will keep you motivated to get out the door each day, even when running feels like the last thing you want to do. Planning your weekly running schedule in advance also aids in commitment. Rather than looking at the training program the morning of a workout, you know what to expect for the next 5–7 days. By penciling your runs into your day planner or posting them on your refrigerator, you can plan accordingly for hurdles that may be thrown in front of you throughout the week. If you have an early morning meeting on Tuesday, plan on running after work. If your kids have a soccer tournament all weekend, find an opening between games to fit your run in. When you schedule your runs, you are far more likely to stick to the plan and remain consistent in your training.

## Recovery: Partial Rest

When it comes to cumulative fatigue, you walk a fine line between training enough and overtraining. The goal of the Hansons Marathon Method is to take you close to the line but not over it. The training you do during the program is tough, but it will lead to a better, more enjoyable race day result. Incomplete recovery is an important part of the training because it allows you to perform well, even when you aren't feeling 100 percent.

Whether you are doing a speed, strength, tempo, or long run, there is a general preoccupation with the idea of being "fresh" for workouts. That freshness, however, requires days off before and after workouts, which takes away from the crucial aerobic adaptations that easy runs offer. While we don't put hard workouts back-to-back, we do employ the idea of active recovery. This means that workouts are often followed by easy running days. This allows you to recover for the next hard workout without taking the day off from running. Think about it this way: After a hard workout, your muscles are depleted of glycogen and feel supremely fatigued. At this time it is important to replace that glycogen, hydrate, and allow the muscles to heal. This, however, doesn't mean you should lie inert on the couch for the next 24 hours. For one thing, you can't gain any aerobic fitness if you take the next day off. Also, you never teach your body how to deal with long-term discomfort if you always allow it to completely recover. Easy running is done at low enough intensities that you are primarily burning fat, allowing your body time to rebuild the lost carbohydrate (glycogen) stores. In addition, your muscles learn to more efficiently burn fat because they are running at a pace that promotes fat burning rather than carbohydrate depletion. The muscles also adapt to the training loads placed on them and will eventually become stronger. This means you can handle increased workloads, recover, and gain aerobic fitness faster if you just run easy on days you don't have a hard workout.

While recovery is important, cumulative fatigue calls for only partial recuperation. Even after an easy run day, your muscles may still be somewhat fatigued and glycogen stores only moderately refueled, causing you to feel slightly sluggish. This is normal. You are training your body to withstand many miles of running. Just as you will feel sluggish toward the end of the marathon and will need to push through, it is important to learn to keep moving forward during your training. This makes cumulative fatigue an integral part of your long runs. Although you'll have the last few days of training still in your legs, you'll be recovered enough to run the long run as desired. Our method teaches your legs to withstand the latter portion of the marathon by loading them with a little fatigue prior to the long runs.

Put simply, we're looking to simulate running the last 16 miles of the marathon, not the first 16 miles. That being said, the stress is not so great that you will need the following week to recover. Instead, the next day will be easy, and then a workout will follow a couple of days after that. Through a number of physiological adaptations, cumulative fatigue trains your body to be fully prepared for the physiological stress imparted by the marathon distance. As you look at our training programs, you'll notice that every 4 weeks, the mileage increases slightly via easy days, tempo runs, and long runs. As your body adapts, you vary the stress and continue the progression upward. Leading up to the big day, you will finally allow your body to fully recover, giving you that fresh feeling as you toe the line. In other words, you are ready for peak performance. Our programs are designed this way to help you feel your best during the race, not during training. After all, you never want to execute your best performance in practice.

Training for a marathon isn't easy, and it shouldn't be taken lightly; a few curse words may be uttered, favorite television shows missed, and social outings forgone, but you will regret nothing when you successfully cross that finish line. This entire program has been developed by great coaches who have learned from other great coaches. It is a philosophy that can transform you from a person who wants to run a marathon into a bona fide marathoner. We're here to get you there.

Understanding certain physiological principles will help you make sense of the structure of the training program. That foundation will provide the "why"—explaining why you are doing something—while the program will provide the "what to do" and "when to do it." The structure of the Hansons Marathon Method is dependent on the physiological basis of marathon performance. By understanding these key principles, runners are less likely to make critical mistakes in their training.

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**Luke Humphrey** began running track in middle school and hasn't slowed down since. After several all-state performances in high school, Luke ran for Central Michigan University from 1999 to 2004. There he was part of several NCAA Division I top-25 cross-country teams, including a 9th-place team finish in 2002. In 2004, Luke competed in his first marathon at the LaSalle Bank Chicago Marathon in the fall of 2004 for the Hansons-Brooks Distance Project. He ran a debut time of 2:18:46 and was 18th overall. Since then Luke has gone on to finish 11th in the 2006 Boston Marathon, 11th in the 2008 ING New York City Marathon, and 12th in the 2010 Bank of America Chicago Marathon as well as to qualify for two U.S. Olympic Trials for the marathon (2008 and 2012). Luke holds a personal best of 2:14:38 in the marathon. He has a B.A.A. in exercise science from Central Michigan University and an M.S. in exercise science from Oakland University. Luke began Hansons Coaching Services in May 2006 to help runners of all abilities reach their running goals. He and his wife, Nicole, have a daughter, Josephine.

**Keith and Kevin Hanson** are cofounders of the Hansons-Brooks Distance Project, together coaching the Olympic development team to victories on national and international stages. They also co-own the Hansons Running Shops and avidly support, build, and encourage the running community, coaching hundreds of local runners to their first or 100th marathon.

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**LUKE HUMPHREY** is head coach of Hansons Coaching Services and a runner with the Hansons-Brooks Distance Project.

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