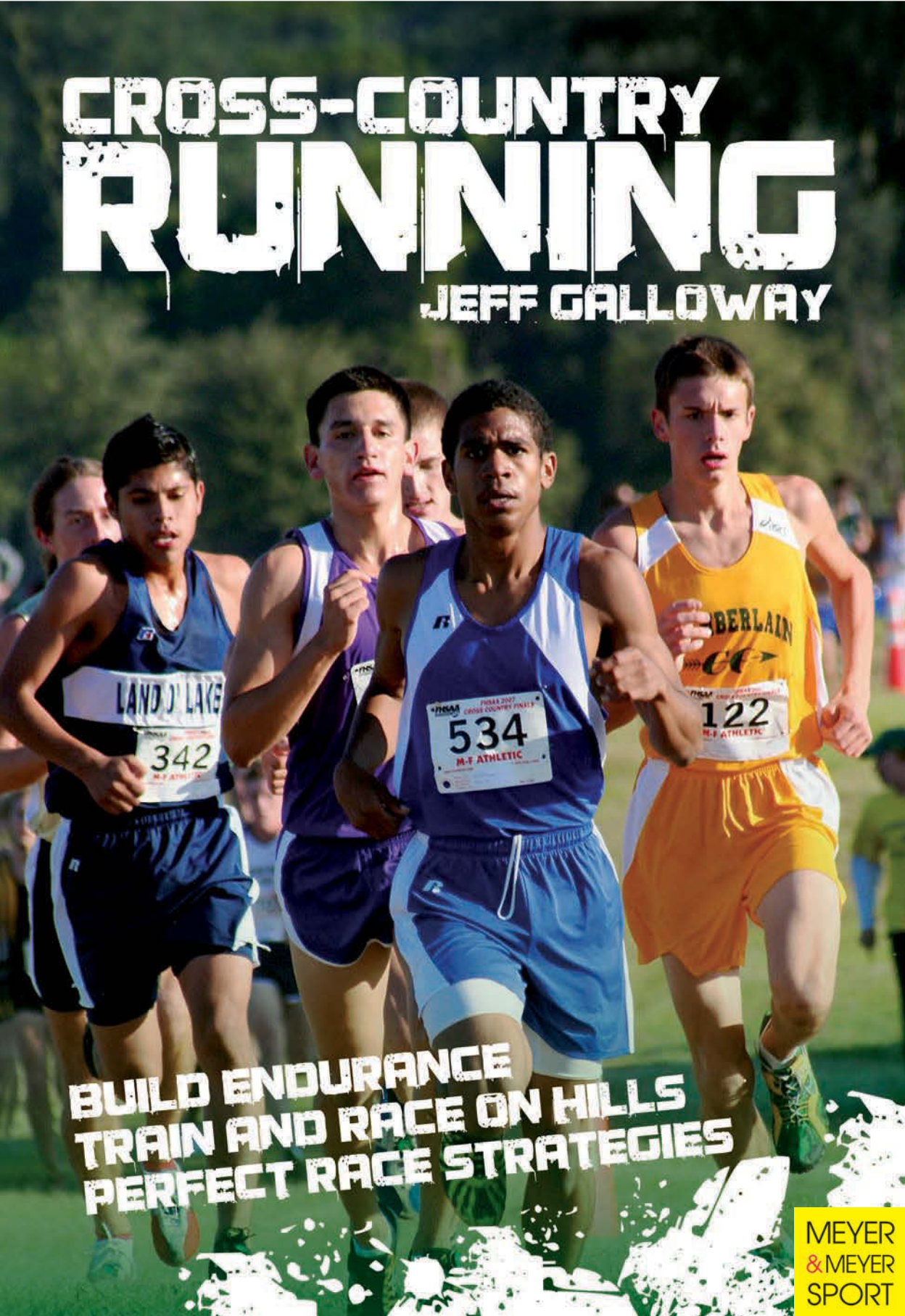
CROSS-COUNTRY RUNNING

JEFF GALLOWAY



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Cross-Country Running

Jeff Galloway

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1 Dedication

Several years ago, the admissions director of an Ivy League university was asked for one or two high school activities that would give an applicant an advantage in being accepted to his institution, if they were on the waiting list. Without hesitating, he put cross-country at the top of the list. Cross-country runners, he said, have a special type of discipline and are willing to work very hard physically and mentally without receiving recognition. This combination of characteristics produced successful graduates who could handle the pressure-packed university culture.

This book is dedicated to the thousands of cross-country athletes who would not usually be selected for sports that are supported by cheerleaders. On many days, they are huffing, puffing and sweating before most of their fellow students are awake, and have finished a challenging workout before the football players report for practice. They run alone through rain, cold or snow because the workout was listed on the schedule. Exhausted, with half a mile left in a race, they give it everything they have left to help their team.

Cross-country runners sacrifice social activities to study and run. In the process, hidden sources of strength, creativity and confidence are discovered which are applied to everything else in their lives. I dedicate this book to all of those who have discovered the real power of cross-country, and those who are about to do so.

Jeff Galloway
Cross-Country Runner

2 Cross-Country Changed my Life

Like many children in Navy families, I attended 13 schools by the time I finished the 7th grade. At this point my father became a teacher, we moved to Atlanta, and my new school required each boy to work out with an athletic team after school every day. Because of the moves, I had avoided sports and exercise, did not have sports skills, had become lazy and had gained a lot of weight.

My patchwork of educational experiences had not prepared me for the demanding and competitive academic environment at this Prep school, and I was struggling. The principal's comment on the report card was "A little more of a push next year and Jeff will make the top half of the class." I was already studying more hours every week than most of the students I knew, who were scoring better on tests. I believed that I was intellectually inferior.

During the Fall I tried football, which was a total disaster from my perspective, and that of my coaches. Before choosing a sport for the next quarter, I asked several of the other lazy kids for their choices and was surprised to hear that many had chosen Winter Track Conditioning. The consensus among the slackers was that the track coach was the most lenient in the school. "Tell him you are running on the trails, and you only have to jog 200 yards to the woods and hide out."

I did just that for 2 days. On the third day, an older athlete I liked looked at me and said "Galloway, you're running with us today." I quickly came up with my strategy: as we entered the woods I planned to grab my hamstring, claiming a muscle pull. But the jokes started right away, and I kept going to hear the punch line. As I began to get really tired, they started telling gossip about the teachers. I didn't last long the first day, but pushed a bit farther with them day after day and started joining the political and psychological arguments.

Most of these cross-country runners were on the academic honor roll. But the controversial arguments led me to believe that I was just as intelligent as the others. Each academic period my grades improved and I, too, made the honor roll. More important, I had become a member of the group and set a new standard for myself due to group expectations.

I was most surprised about how good I felt after a run. The after-run attitude boost was better than I had experienced after any activity during my young life. The camaraderie and fun during those runs kept me coming back and after 10 weeks I was hooked on endorphins and friendship. I continue to be... over 50 years later.

It was commonly known, even back in the 50's, that over half of the cross-country team members were among the best students and leaders in school organizations. University of Illinois Professor Charles Hillman, as reported by Newsweek magazine, noticed that the women's cross-country team set the curve on his neuroscience/ kinesiology tests every semester. So he started a study of elementary children comparing physical activity with academic achievement. He discovered that the kids who were fitter were also the best students. Various studies around the world have found the following:

- Regular exercise increases the level of BDNF (brain-derived neurotrophic factor), which is necessary for learning, memory and higher brain activities.
- Regular aerobic exercise stimulates growth of new brain cells, at any age.
- Regular vigorous exercise causes existing nerve cells to work quicker and more efficiently.
- Even one 30-minute aerobic exercise session stimulates areas in the brain needed for critical thinking and produces better test results than before the exercise.

So there's more to it than the physical benefits. That experience continues to enrich my life.

Jeff Galloway


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3 A Note to Coaches

Cross-country kids are special. They tend to develop a spirit that drives them in everything they do. As you lead them, you have a chance to help them improve the quality of their lives, for the rest of their lives. The greatest hope is that they will become life long exercisers. Kids who run regularly tend to do better in school and in life.

The process of becoming an athlete adds another wonderful opportunity. Even the kids who join the team to hang out with their friends often surprise themselves and their coaches with their accomplishments. From the first year, most of these first timers have to push themselves to unknown limits. Drawing on the combination of body, mind and spirit they discover that they have more resources than they ever imagined.

With the right combination of nurturing and challenging you can help them learn from each setback and become a significant influence in their lives.

Many of the workouts will be tough. Your challenge is to insert some fun into every day possible. Better yet, set up the dynamics of personalities so that the athletes create the fun. It is possible to have both.

If you enjoy the journey, your athletes will find a way to do so as well.

Jeff Galloway
Cross-Country Coach


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4 Staying Injury-free

"The most common reason why cross-country runners don't achieve their goal is that they get injured."

How to stay injury-free

1. Be sensitive to your "weak links."
2. Gradually increase the amount of distance.
3. For at least the first two weeks of the pre-season, run every other day.
4. Don't do any faster speedwork running during the first three weeks.
5. Fast training needs to be gradually integrated into the schedule.
6. At the first sign of a weak link irritation, reduce training and take 1-2 days off.
7. If there is any question about the severity of the injury, see a doctor who wants you to run.
8. As one returns to running, "stay below the threshold of irritation."
9. Read the "Injury Treatment" section of this book for further details.

Curb the enthusiasm

During the pre-season conditioning and during the first 2 weeks of cross-country training, most athletes are highly motivated and want to improve quickly. The most common cause of cross-country injuries, in my experience, has been running too fast during this adjustment period, or adding mileage too quickly. In a team setting, early in the season, it's very common to hear runners say, "I should be able to run as fast as John/Jill," and try to do so. The less conditioned runner can easily get injured during one run by trying to stay up with a teammate who did more training over the summer, or did a better job of choosing parents.

Why do we get injured?

Pushing too hard, too soon, is the most common cause of cross-country injuries that have been reported to me over the decades. Almost all of these can be prevented if runners will begin their training at their current level of conditioning (and not that of a more fit or able friend), gradually increase the duration and intensity, and insert sufficient rest between stress workouts.

Our bodies are programmed to adapt to running, by making constant "upgrades" to withstand stress and perform more efficiently. Regular and small increases in workload, followed by recovery periods, promote rebuilding, mechanical and physiological adaptations, and improved capacity. The crucial factor that is most commonly neglected is rest: it is during the recovery period that the rebuilding takes place.

Be sensitive to your "weak links"

These body parts take on more stress when we work out. They are the first to ache, hurt or malfunction when we run a bit too fast or too far—or run too many days in a row. At the first sign of an irritation of a "weak link," take an extra day off as an insurance policy.

Minor breakdown simulates improvement

The process starts during a normal workout when micro-tears develop in muscles and tendons due to the focused stress of continued movement/irritation of these key parts. The number of these tiny injuries will increase on long or faster workouts, especially during the last 25%. But in most cases, the rest period after a workout will allow for healing of enough of the damage so that training can continue.

Stopping a workout when an injury occurs, and taking 2-3 days off at the beginning of an injury can promote almost complete healing, or get the healing started. The first day back should be gentle and short. If there are no signs of injury, training can continue without compromising race performance at the end of the season. But running even the last mile of a workout with an injury can increase the damage dramatically and may limit the training for the rest of the season.

Common weak links:

Joints—knee, hip, ankle
Muscles—calf, hamstring, quadriceps
Tendons—Achilles tendon, knee, ankle
Soft tissue (Fascia)—especially around joints, foot
Bones—foot and leg
Nerve tissue—foot and leg
Feet and ankle—just about any area can be overstressed in cross-country

Most injuries are not felt during the workout that produces them

In some cases, pain-killing hormones, such as endorphins, will mask the damage at first. Even when the first aches and pains occur, most runners go into denial, ignore the first symptoms, and train until the stressed area breaks down. This usually results in significant downtime for repair or a significant reduction in performance for the season, or both.

To sustain progress and avoid injury, follow this simple pattern:

- A slight increase in training duration or intensity produces a minor breakdown of tissue. This stimulates each area that has been abused to adapt to a higher workload.
- If the rest between the challenging workouts is sufficient for the individual, the muscles, tendons, joints, feet, etc. rebuild stronger to accommodate a projected higher workload in the near future. For beginners this rest period is often 48 hours in the preseason and the early stages of the season. Veteran runners can often run easily, every other day, and avoid breakdown—but some veterans need at least 2 days off from running per week, strategically placed.
- During the days off, cross training can provide other benefits, while the body is improving. Deep water running, for example can improve running efficiency. All body parts continue to adapt in structure, efficiency, and performance when there is a balance between workout stress and rest.

Running improvement continues if...

- We don't push too far beyond current capabilities.
- We engage in regular workouts.
- One or two workouts a week push the intensity or duration a bit further than before.
- Sufficient rest is provided after the stressful sessions as rebuilding time.


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5 The Inside Story on Getting Faster

By running easily and regularly, the whole body works together to help you move more efficiently while you increase your positive health potential. Lungs become more efficient, the heart is strengthened. Oxygen is processed more efficiently into the blood, and the blood is pumped more effectively through the body. At the same time, your leg muscles, tendons, joints, etc., make up a strong and coordinated system to gradually do more work, and move you farther and faster down the road.

When you decide to test yourself through speed training and racing, you take certain risks to prepare for a number of rewards. Speed training is necessary for maximum time improvement, but it will dramatically increase the risk of injury. As mentioned in a previous chapter, the quest toward a time goal can send the ego on a trip that reduces running enjoyment due to the narrow focus on a time goal.

The regular but gentle increase of speed repetitions stimulates the body to improve the efficiency of the mechanical workings of the feet, legs, and joints. Behind the scenes, the mitochondria (inner powerhouses that process energy) are pushed into delivering more, even when under duress. Individual muscle cells act as pumps, helping to return blood to the heart and lungs. By testing yourself in speed sessions and races, you will be challenging your "physiological team" to achieve a higher level of performance.

Getting faster requires extra work

To get faster, we must push beyond our current, comfortable levels. All of us have a lazy streak in us. Our bodies are programmed to conserve resources by doing the smallest amount of work they can get away with. So even after we have increased the length of our runs, steadily over several months, our leg muscles, tendons, ligaments etc., are not prepared for the jolt that speed training delivers. But only when we put the legs, the heart, lungs, etc., to a gentle test, week by week, does the body respond by improving in dozens of ways. The best way to stay injury-free is to gradually increase the duration and intensity, eliminating the "jolt."