THE BOOK

"Running Injuries - Treatment and Prevention" offers easy to access tips on treating and avoiding injuries. It is written in a language that is easy to understand. The book will help runners and walkers understand how injuries occur, how to prevent them, how to heal them: knee, foot, calf, iliotibial band, plantar fascia, achilles tendon, neuroma, and much more. There is also a section on coming back from an injury and exercising while injured.

THE AUTHORS

Jeff Galloway was an average teenage runner who kept learning and working harder, until he became an Olympian. He is the author of the best-selling running book in North America ("Galloway's Book on Running") and is a Runner's World columnist, as well as an inspirational speaker for more than 200 running and fitness sessions each year. He has worked with over 150,000 average people in training for specific goals and Galloway's quest for an injury-free marathon training program led him to develop group training programs in 1978. Galloway is the designer of the walk-run, low mileage marathon training program (Galloway RUN-WALK method) with an over 98% success rate.

After completing his undergraduate studies at the University of Oregon, **David Hannaford** went to the Podiatric Medical School in San Francisco. Returning to Oregon to practice, he treated professional, recreational and U of O athletes where he had a staff appointment. Five years later, leaving Eugene for Seattle, he worked in the Sports Medicine Division of The Virginia Mason Hospital. Since 1991, he runs a private practice in the San Francisco area where he almost exclusively treats runners. Some of the best athletes in the world are among his patients. During his time at the University of Oregon, he himself began his career as an avid runner. After hundreds of races, his running interest has progressed to ultra marathoning. He has currently completed 46 ultra marathons and become the 2nd place man (at 51 years old) in the Badwater 135 mile race in Death Valley, CA (126 °F heat). Furthermore he has been the medical director of the San Francisco marathon, Olympic trials, and staff Podiatrist for Jeff Galloway's Tahoe Running Retreats.

ISBN 978-1-84126-284-0

9 781841 262840 51695

$ 16.95 US/£ 12.95/€ 16.95

www.m-m-sports.com

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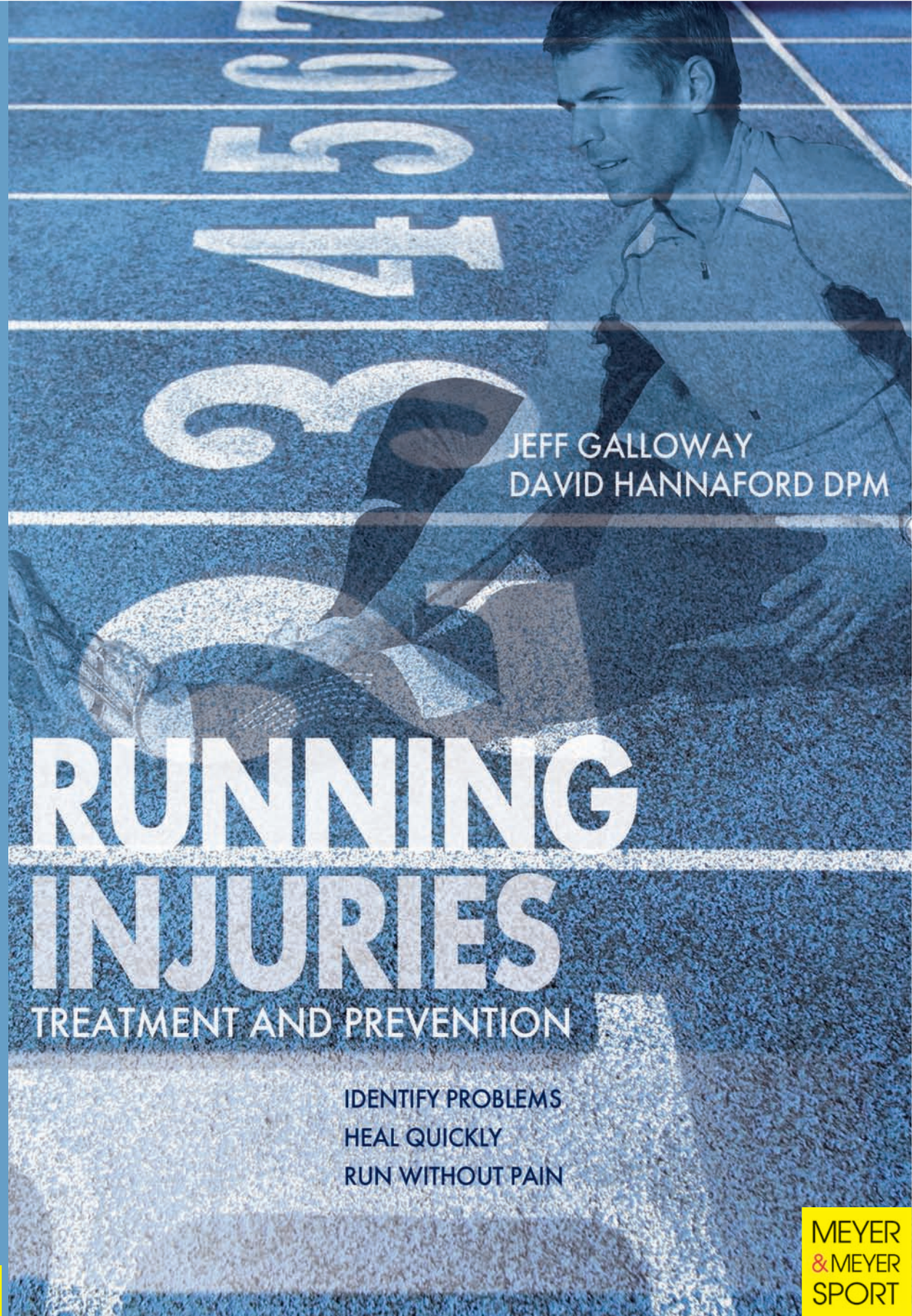
Jeff Galloway & David Hannaford



Running Injuries

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Running Injuries

Treatment and Prevention

Jeff Galloway & David Hannaford DPM

Meyer & Meyer Sport

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Jeff Galloway, David Hannaford
Running Injuries
Maidenhead: Meyer & Meyer Sport (UK) Ltd., 2010
ISBN 978-1-84126-528-5

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Aachen, Adelaide, Auckland, Budapest, Cape Town, Graz, Indianapolis,
Maidenhead, Olten (CH), Singapore, Toronto
Member of the World
Sport Publishers' Association (WSPA)
www.w-s-p-a.org
ISBN 978-1-84126-528-5
E-Mail: info@m-m-sports.com
www.m-m-sports.com

Contents

Photo & Illustration Credits:

Cover Photos: © fotolia, Mike Graffigna 2008 & imago, Sportfotodienst

Cover Design: Sabine Groten

Photos: Mizuno

Injury-Free for Over 30 Years

by Olympian Jeff Galloway

Over 50 years ago I literally took the first steps in a life-changing experience: I started running. As a fat and lazy 13 year old, I enrolled in a required conditioning program at my school, fully expecting that running was going to hurt, and that I would quit after 10 weeks of punishment. To my surprise, I felt really good during and after most of my runs. My vitality and positive attitude was better than at any other time of the day. My new running friends were energetic, mentally alert and fun. As I pushed back the distance barriers, I discovered positive feelings and resources I had never experienced. When I was running correctly, I experienced a sense of freedom and well-being that was wonderful and unique. Running helped me be happy.

I became hooked on running and competition. But male ego and testosterone led me into a series of aches, pains and significant injuries. Not wanting to give up the wonderful benefits, and lacking perspective, I often went into denial at the onset of an injury and was forced to stop running after a few more runs due to breakdown of muscles, tendons, etc. The worst part was the psychological letdown during every "vacation" from running (about every 3-4 weeks). The withdrawal from endorphins inspired a desire to eliminate injury. This book is my latest step in that direction.

In 1978 I faced the reality that I would probably never run as fast as I had during my first 20 years of running. My new goal was to stay free of overuse injuries. I'm proud to say that for more than 30 years, I've done this. Chances are, you can be mostly injury free, too. In this book I will tell you the principles and steps that have kept me and over 250,000 clients away from the doctor's office for the most part.

Every week most runners have some aches, pains or injury issues, or questions about whether they have an injury. When I give advice it is from one runner to another. Get medical advice from a doctor who has treated a great number of athletes with the same injury, successfully. Dr. David Hannaford is my top choice for almost any ailment associated with running. At my Tahoe running retreat I've seen him diagnose and treat injuries over and over that other specialists missed. He is as addicted to running as I am and wants to get every injured runner back on the road or trail as soon as possible. He has a gift for communicating his knowledge in ways that non-doctors can understand.

Both of us want you to understand why injuries occur, how to avoid them and that there are successful ways to prevent and treat them. We want you to gain control over your ailments.

Jeff Galloway

Why Do We Get Injured... and How to Avoid the Risks

Plus: How to return to running... staying in shape while injured.... troubleshooting running form... and more.

by Olympian Jeff Galloway

What Causes Injuries?

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

But each of us has a few "weak links" that take on more stress when we work out. These are the areas that ache, hurt or don't work correctly when we start a new activity, increase training, or don't provide sufficient rest after a hard workout. In some cases, pain-killing hormones, such as endorphins, will mask the damage. Most commonly, exercisers go into denial, ignore the first signs of irritation and continue training until the stressed area breaks down.

To sustain progress and avoid injury, we simply need to follow a simple pattern: 1) A slight increase in training produces a minor breakdown of tissue. 2) If the after-workout rest period is sufficient, the muscles, tendons, cardiovascular system rebuild/restructure to handle a higher level of performance. 3) 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.
- we provide enough rest after the stressful sessions.

Be Sensitive to Your "Weak Links"

Most of the aches and pains experienced by my runners and walkers are located in their "weak link" areas—the muscles, joints, tendons, etc. that take more stress due to our individual range of motion. 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 third. But in most cases, the rest period after a workout will allow for healing of most or all of this damage.

Common Weak Links

Joints—knee, hip, ankle
Muscles—calf, hamstring, quadriceps
Tendons—Achilles, knee, ankle
Fascia—especially around joints, foot
Bones—foot and leg
Nerve tissue—foot and leg
Feet—just about any area can be overstressed

There is often no sensation of pain during or immediately after the workout because the body has a number of pain-killing mechanisms (including endorphins) which will temporarily mask the symptoms. But when a critical mass of these broken fibers has accumulated in one area, you have produced more damage than the body can repair in 48 hours—you have an injury.

Why Do Micro-tears Accumulate?

- Constant use
- Prior damage
- Speed work
- Too many races
- Doing something different
- Sudden increase of workload
- Inadequate rest between workouts
- Not enough walk breaks during runs
- Stretching (yes, stretching causes a lot of injuries)
- Heavy body weight

Common Causes of Injuries

It's a physiological fact that the constant use of a muscle, tendon, joint, etc., without a break, will result in earlier fatigue and reduced work potential. Continuing to run/walk when the muscle is extremely fatigued increases the quantity of micro-tears dramatically and is a major cause of injury.

By pacing conservatively and by inserting walk breaks early and often, you will gain a great deal of control over the fatigue process. You'll empower the muscles to maintain resiliency and capacity. This lowers the chance of breakdown, by significantly reducing the accumulating damage that leads to injury. Here are some "tools" that can give you control over your aches and pains:

- The pace of the long run is too fast (see pp. 161-162).
- Speedwork segments are too fast for current ability (see pp. 161-162).
- Pace is too fast for the heat (see p. 114).
- Sudden increase in speed/distance (see p. 20).
- Insufficient rest days per week (three days reduce injury rate most).
- Walk breaks are not taken soon/often enough (see pp. 159-161, top reason for injury).
- Stretching causes many injuries and aggravates many more, be careful.
- Changing form or technique (see p. 16).
- Shoes—seldom a cause, but can aggravate a weak link (see pp. 165-167).
- Changing from a worn-out shoe to a new shoe.
- Trauma—running on a slanted or uneven surface, stepping off a curb, in a hole, etc. This happens rarely, but be careful.

Aggravating Factors

- Prior damage—especially due to accident trauma, football, soccer, skiing, etc. It may not be possible for all of the damage to be repaired. In most cases, training adjustments can be made to allow for continued running/walking exercise into the mature years.

Note: Studies show that runners have healthier joints and fewer orthopedic complaints than non-runners after decades of running. See RUNNING UNTIL YOU'RE 100 for more information.

- Body weight—every 5 pounds of weight gain above average per age puts significantly more stress on the joints, weak links, etc. With much more frequent walk breaks, however, weight stress can be reduced significantly.

- Speed—Speed training and frequent racing increases stress on the weak links significantly. The elimination of speed work can significantly reduce injury risk. When working with e-coach clients, I have found individual adjustments allowing some form of faster training while managing the risk, in most cases.

- Stride length—longer strides increase risk. A shorter stride may not slow you down if you will increase cadence or turnover.

- Bounce off the ground—the higher the bounce, the more stress on the push-off muscles. The higher the bounce, the more shock to be absorbed upon landing. Stay low to the ground, touching lightly.

- Stretching—I have heard from thousands of runners who have been injured or had injuries aggravated by stretching. In general, I do not recommend stretching. There are individuals who benefit from certain stretches, however. Be careful if you choose to stretch. Stretching is not generally recommended as a warm-up or immediately after running. Trying to stretch out fatigue-induced tightness often results in injury or prolonged recovery.

Note: Those who have iliotibial band injury can often get relief from a few specific stretches that act as a "quick fix" to keep you running. Even when doing these, be careful. The foam roller treatment has been the mode that has reduced healing time for this injury. There is a picture on our website (www.jeffgalloway.com) that shows how to use this.

- Continuing to work out when an injury has begun can dramatically increase the damage in a few minutes. It is always better to stop the exercise immediately if there is an indication that you have an injury.

- Avoid certain exercises that aggravate your weak links.
- The "Toe Squincher." Everyone should do this exercise every day to reduce/eliminate the chance of having a plantar fascia injury—or other foot problems. Point your foot down and contract the muscles in the forefoot/midfoot region. This strengthens the many little muscles in your feet that will provide extra support.

How Do You Know if You Are Injured?

Continuing to exercise when you feel that you might have an injury puts you at great risk of an extended layoff from running. In most cases that I've monitored, when I suspect that there is an injury, it usually is an injury. Be sensitive to your weak links. When you notice any of the symptoms below, take at least a day or two off from running.

- Inflammation—swelling, puffiness or thickening.
- Loss of function—the area doesn't work correctly or move normally.
- Pain—if the pain does not go away as you get warmed up and walk slowly, or the pain increases, STOP!

You Can Take 5 Days Off from Running with no Significant Loss in Conditioning

It is always better to err on the conservative side of injury repair. If you take an extra day off at the beginning of an injury, you won't lose any conditioning. But if you continue training with an injury, you may increase the healing time by a week or a month for each day you try to push through pain.

Quick Action Can Reduce Recovery Time Needed

Some minor irritation may require just one day off from running. As the pain level increases, so does the need for more recovery days, because there is usually more damage.

How to Lower the Chance of Injury

- Insert walk/shuffle breaks from the beginning.
- Work out every other day (lowest rate of injury).
- Avoid faster running or gently ease into faster running.
- Don't stretch (unless you have certain stretches that work for you and don't hurt you).