# **Jeff Galloway**With David Hannaford DPM

# **RUNNING INJURY FREE**

**Prevent and Treat the Most Common Running Injuries** 



# Running Injuries



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With David Hannaford DPM

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### **Running Injury Free**

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## INJURY-FREE FOR OVER 40 YEARS



Courtesy of 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 and tendons. The worst part was the psychological letdown during every "vacation" from running (about every three to four 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 from overuse injuries. I'm proud to say that for more than 40 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 500,000 clients pretty much away from the doctor's office.

Every week most runners have some aches, pains, 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. In this book, friend, runner, and doctor, David Hannaford, has contributed the info on troubleshooting running injuries and how to treat them. He has a gift for communicating his knowledge in way that those who aren't medical professionals can easily 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.

# WHY DO WE GET INJURED AND HOW CAN WE AVOID THE RISKS?

In this chapter, I examine why runners get injured and how they can best avoid the risk of injury. In addition, I take a look at how you can stay in shape while injured, how to troubleshoot running form, and how to return to running after an injury, and more.

### 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 repair and rebuilding occur.



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, painkilling 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 remember that

- 1. a slight increase in training produces a minor breakdown of tissue;
- with a sufficient recovery period post workout (usually about 48 hours), the muscles, tendons, and cardiovascular system can adapt and rebuild stronger to handle a higher level of performance; and
- **3.** all body parts continue to adapt in structure, efficiency, and performance when there is an adequate balance between workout stress and rest.

### RUNNING IMPROVEMENT CONTINUES IF

- we don't push too far beyond current capabilities;
- · we engage in regular workouts; and
- we provide adequate recovery after the stressful sessions.

### BE AWARE OF 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, and tendons that take more stress due to our individual range of motion. The process starts during a normal workout when microtears 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 longer or faster workouts, especially during the last third of a goal-oriented training schedule. 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 tendon, knee, ankle
- Fascia-foot
- Bones—foot and leg
- Nerve tissue—foot and leq
- 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 painkilling 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 are now injured.

### 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 bodyweight
- Stride is too long

### **COMMON CAUSES OF INJURIES**

It's a physiological fact that the constant use of a muscle, tendon, or joint without a recovery break will result in earlier fatigue and reduced work potential. Continuing to run-walk when the muscle is extremely fatigued increases the quantity of microtears 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 fatigue and injury. 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 of the training variables that can be adjusted to avoid injury:

- The pace of the long run is too fast.
- Speedwork segments are too fast for current ability.
- Pace is too fast for the heat.
- Sudden increase in speed, distance, or number of speed repetitions.
- Insufficient rest days per week (three days reduce injury rate most).
- Walk breaks are not taken soon or often enough.
- Stretching causes many injuries and aggravates many more, be careful.
- Changing form or technique.

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- Shoes—seldom a cause, but can aggravate a weak link.
- Changing from a worn-out shoe to a new shoe.
- Stride is too long. To improve speed, don't extend your stride, but rather increase cadence by using my cadence drill.
- Trauma—running on a slanted or uneven surface, stepping off a curb, in a hole, etc. This happens rarely, but be careful.

**NOTE:** Download my Jeff Galloway Run Walk Run App for free, then check out the resources.

### AGGRAVATING FACTORS

- Prior damage, especially due to accident trauma or perhaps trauma which
  occurred by playing another sport. 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 my book RUNNING UNTIL YOU'RE 100 for more information.
- Bodyweight. Every five pounds of weight gain above average per age puts significantly more stress on the joints and weak links. 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. Reducing or fine-tuning speed workouts 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 works in most cases.
- **Stride length**. Longer strides increase risk. A shorter stride may not slow you down if you increase cadence or turnover.
- **Bouncing 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 not found a single study showing that stretching has

benefits for distance runners. Many studies show increased injury risk from stretching. I've also 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, and stick to dynamic movements whenever possible. 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.



Using a foam roller.

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- 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.
- Prevent foot injuries with the Toe Squincher exercise. Everyone should do this
  exercise every day to reduce or even eliminate the chance of having a plantar
  fascia injury or other foot problems. To do this exercise, point your foot down
  and contract the muscles in the forefoot/midfoot region as you would do
  with the hand to make a fist. Hold for 6-12 seconds. This strengthens the
  many little muscles in your feet that provide extra support.



Toe Squincher exercise.

### HOW DO YOU KNOW IF YOU ARE INJURED?

Continuing to exercise when you feel that you might have an injury puts you at greater risk for an extended layoff from running. In most of the cases I've monitored, when I suspect that there is an injury, it usually is an injury. Be aware of your weak links. When you notice any of the following symptoms, 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 FIVE 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 or 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).



Insert more walk breaks to lower your risk of injury.

### STAYING IN SHAPE WHEN INJURED

- Many running injuries will heal while you continue to run if you stay below
  the threshold of further irritation. Talk to your doctor about this issue to
  ensure that the healing has started and that you are not irritating the injury
  as you start back.
- Cross-training—pick an activity that does not aggravate the injury. Walking
  and water-running are the best for maintaining running conditioning. To
  hold current endurance, schedule a long walk or water-run session that is the
  same distance of your long run (same number of minutes you would spend
  running your current long run). Some runners have been able to maintain
  speed conditioning by doing a speed running workout in the water once a
  week

- Swimming and cycling are good for overall fitness, but don't have a lot of direct benefit to runners.
- Activities to avoid: Anything that irritates the injury.
- If you can walk, walk for at least an hour every other day. Walking will maintain most of your running adaptations. You will receive the same endurance from a long walk as a long run of the same distance.

### HOW TO RETURN TO RUNNING

- Check with your doctor to ensure that enough healing has occurred to begin running again.
- Stay below the threshold of irritation. You want to see progress, week by week, in pain reduction.
- Stay in touch with your doctor and ask questions if you suspect that you are aggravating the injury.
- Avoid exercising if you are favoring the injured area or limping. Running in an abnormal way can result in a worse injury in another location.
- If you haven't been exercising, start by walking. Build up to a 30-minute walk (as long as there isn't an increase in irritation).
- Insert small segments of running into a walk (run 5-10 seconds, walk the rest
  of the minute). If there is no aggravation, you could increase the running
  segment by 5 seconds while decreasing the walking segment by 5 seconds
  after using each new ratio for at least three workouts.
- Avoid anything that could aggravate the injured area.
- First training increase goal should be toward increasing the duration of the long run (or walk) by 5-10 minutes every other week. Keep the run-walk-run ratio mostly (or entirely) walking for the first month and slowly increase as the irritation is reduced.

### INJURIES FROM RUNNING FORM MISTAKES

While the body adapts and adjusts to the running motion, workouts or races that are long or fast (for you) can result in irregularities in our normal form. Since the body has not adapted to these wobbles, weak links can be irritated. Continued use—using an unaccustomed range of motion—can lead to injury. For more information, see my books GALLOWAY'S HALF MARATHON TRAINING and GALLOWAY'S 5K/10K RUNNING. You can also download my Jeff Galloway Run Walk Run app for free.

### TYPICAL FORM-RELATED INJURIES AND THEIR CAUSES

- Lower back pain caused by leaning forward, overstriding, taking too few walk breaks.
- Neck pain caused by leaning forward or placing the head either too far forward or too far back.
- Hamstring pain caused by too long of a stride length or stretching.
- Shin pain caused by too long of a stride length, especially on downhills or at end of run.
- Shin pain on inside caused by overpronating the feet.
- Achilles pain caused by stretching, speedwork, or overpronating.
- Calf pain caused by stretching, speedwork, or inadequate number of walk breaks.
- Knee pain caused by taking too few walk breaks or overpronating.

### THE SHUFFLE

The most efficient and gentle running form is a shuffle: The feet stay close to the ground, touching lightly with a relatively short stride. When running at the most relaxed range of the shuffling motion, the ankle mechanism does a great deal of the work, and little effort is required from the calf muscle. But when the foot pushes harder and bounces more, and the stride increases, there are often more aches, pains and injuries.