

# Getting in Shape

With Jeff Galloway



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# Getting in Shape

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with Jeff Galloway

*There are few experiences in life that make you feel empowered. Research shows that running and walking turn on brain circuits for a better attitude, more vitality, and personal empowerment better than anything. Almost anyone can run with the right strategy—and feel better, think better, with more energy.*

*The main ingredient to be successful is the desire to move forward, about every other day. By inserting a little running into your walk you increase the rewards of exercise. You will want to bring others along and improve the quality of their lives.*

# What You Need to Get Started

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## ***You don't have to have....***

- A health club
- A team of other people
- A specific time of the day
- A specific uniform
- A piece of exercise equipment
- Lessons or a “pro” to supervise
- Competitive events

## ***You are free to***

- run or walk by yourself
- from your home, office, kid's athletic field, etc.
- run or walk when you have time to do so, day or night
- wear what you wish
- leave behind the phone, etc.

## **Shoes: the primary investment**

Most runners/walkers decide wisely to spend a little time on the choice of a good running shoe. After all, shoes are the only real equipment needed. The right shoe can make running easier and reduce blisters, foot fatigue and injuries. Because there are so many different brands with many different models, shoe shopping can be confusing. The best advice is to get the best advice. Going to a good running store, staffed by helpful and knowledgeable runners, can cut the time required and can usually lead you to a better shoe choice than you would find for yourself. The next section of this book will serve as a guide to getting the best shoe for you.

## **Clothing: comfort above all**

The “clothing thermometer” at the end of this book is a great guide. In the summer, you want to wear light, cool clothing. During cold weather, layers are the best strategy. You don’t have to have the latest techno-garments to run. On most days, an old pair of shorts and a T shirt are fine. As you get into running, you will find various outfits that make you feel better and motivate you to get in your run even on bad weather days. It is also OK to give yourself a fashionable outfit as a “reward” for running regularly for several weeks.

## **A training journal**

The journal is such an important component in running that I have written a chapter about it. By using it to plan ahead and then later to review mistakes, you take a major degree of control over your running future. You’ll find it reinforcing to write down what you did each day, and you’ll miss that reinforcement when you skip. Be sure to read the training journal chapter and you too can take control over your running future.

## **Where to run**

The best place to start is in your neighborhood, especially if there are sidewalks. First priority is safety. Pick a course that is away from car traffic and is in a safe area where crime is unlikely. Variety can be very motivating.

## **Surface**

By adjusting the run/walk/run amounts and selecting the right shoe for you, pavement should not give extra shock to the legs or body. A smooth surface, dirt, or gravel path is a preferred surface. Beware of an uneven surface, especially if you have weak ankles or foot problems.

## **Picking a running companion**

Don’t run with someone who is faster than you unless they are fully comfortable slowing down to an easy pace that is comfortable for you. It is motivating to run with someone who will go slow enough and take a liberal amount of walking so that you can talk. Share stories, jokes, problems if you wish, and you’ll bond together in a very positive way. The friendships forged on runs can be the strongest and longest lasting if you’re not huffing and puffing (or puking) from trying to run at a pace that is too fast for you.

## **Rewards**

You’ll see in the section on “Setting Yourself up for Running Success” that rewards are important at all times. In fact, rewards can be crucial for most runners in the first 3-6 weeks. Be sensitive, and provide rewards that will keep you motivated, and make the running experience a better one (more comfortable shoes, clothes, etc.) Positive

reinforcement works! Treating yourself to a smoothie after a run, taking a cool dip in a pool, going out to a special restaurant after a longer run—all of these can reinforce the good habit you are establishing. Of particular benefit is having a snack within 30 minutes of the finish of a run that has about 200-300 calories containing 80% carbohydrate and 20% protein. The products Accelerade and Endurox R4 are already formulated with this ratio for your convenience and make good rewards.

### **An appointment on the calendar**

Write down each of your weekly runs 2 weeks in advance on your calendar. Sure, you can change if you have to. But by getting the running slot secure, you will be able to plan for your run and make it happen. Pretend that this is an appointment with your boss, or your most important client, etc. Actually, you are your most important client!

### **Motivation to get out the door**

The two most common times when runners feel challenged to run are 1) early in the morning and 2) after work. In the motivation section, there are rehearsals for each of these situations. You will find it much easier to be motivated once you experience a regular series of runs that make you feel good. Yes, when you run and walk at the right pace, with the right preparation, you feel better, can relate to others better, and have more energy to enjoy the rest of the day.

### **Treadmills are just as good as streets**

More and more runners are using treadmills for at least 50% of their runs—particularly those who have small children. It is a fact that treadmills tend to tell you that you have gone further or faster than you really have (but usually are not off by more than 10%). But, if you run on treadmill for the number of minutes assigned at the effort level you are used to (no huffing and puffing), you will get close enough to the training effect you wish. An elevation of 1-3% will help simulate a foot motion similar to running outside. To ensure that you have run enough miles, feel free to add 10% to your assigned mileage.

### **Usually no need to eat before the run**

Most runners don't need to eat before runs that are less than 6 miles. The only exceptions are those with diabetes or severe blood sugar problems. Many runners feel better during a run when they have enjoyed a cup of coffee about an hour before the start. Caffeine engages the central nervous system, which gets all of the systems needed for exercise up and running to capacity very quickly. If your blood sugar is low, which often occurs in the afternoon, it helps to have a snack of about 100-200 calories (about 30 minutes before the run) that is composed of 80% carbohydrate and 20% protein. Accelerade fits this need very well in my experience.

# A Trip to the Running Store

The best advice in choosing shoes...  
is to get the best advice

## **Bring with you the most worn pair of shoes you own—walking or running**

The pattern of wear on a well-used walking shoe offers dozens of clues to a running store staff person. Primarily, shoe wear reveals the way your foot rolls, which is the best indicator of how your foot functions. Shoes are made in categories, and each category is designed to support and enhance a type of pattern of the running motion.

## **A knowledgeable shoe store staff person can usually notice how your foot functions**

...by watching you walk and run. This is a skill gained through the experience of fitting thousands of feet, and from comparing notes with other staff members who are even more experienced (daily practice in the better stores).

## **Give feedback**

As you work with the person in the store, you need to give feedback as to how the shoe fits and feels. You want the shoe to protect your foot while usually allowing the foot to go through a natural running motion for you. Tell the staff person if there are pressure points or pains, or if it just doesn't feel right.

## **Reveal any injuries or foot problems**

If you have had some joint issues (knee, hip, ankle) possibly caused by the motion of your foot, called over pronation (see sidebar below), you may need a shoe that protects your foot from this excess motion. Try several shoes in the "stability" category to see which seems to feel best while helping to keep the pronation under control.

## **Don't try to fix your foot if it isn't broken**

Even if your foot rolls excessively one way or the other, you don't necessarily need to get an over-controlling shoe. The leg and foot makes many adjustments and adaptations which keep many runners injury free—even when they have extreme motion.

## **Expensive shoes are often not the best for you**

The most expensive shoes are usually not the best shoes for your feet. You cannot assume that high price will buy you extra protection or more miles. At the price of some of the shoes, you might expect that they will do the running for you. They won't.

### ***If you don't have a running store in your area...***

1. Look at the wear pattern on your most worn pair of walking or running shoes. Use the guide below to help you choose about 3 pairs of shoes from one of the categories below:

Floppy? If you have the wear pattern (spots of wear, some on the inside of the forefoot) of a “floppy” or flexible foot, and have some foot or knee pain, look at a shoe that has “structure” or anti-pronation capabilities.

Rigid? If you have a wear pattern on the outside of the forefoot of the shoe, and no wear on the inside, you probably have a rigid foot and can choose a neutral shoe that has adequate cushion and flexibility for you as you run and walk in them.

Can't tell? Choose shoes that are neutral or have mid-range of cushion and support.

2. Run and walk on a pavement surface to compare the shoes. If you have a floppy foot, which has caused aches and pains, make sure that you get the support you need.
3. You want a shoe that feels natural on your foot—no pressure or aggravation—while allowing the foot to go through the range of motion needed for running.
4. Take as much time as you need before deciding.
5. If the store doesn't let you run in the shoe, go to another store.

## **Go by fit and not the size noted on the box of the shoe**

Most runners wear a running shoe that is about 2 sizes larger than their street shoe. For example, I wear a size 10 street shoe, but run in a size 12 running model. Be open to getting the best fit—regardless of what size you see on the running shoe box.

## **Extra room for your toes**

Your foot tends to swell during the day, so it's best to fit your shoes after noontime. Be sure to stand up in the shoe during the fitting process to measure how much extra room you have in the toe region of the shoe. Pay attention to the longest toe on your longest foot, and leave at least half an inch.

## Width issues

- Running shoes tend to be a bit wider than street shoes.
- Usually, the lacing can “snug up” the difference if your foot is a bit narrower.
- The shoe shouldn’t be laced too tight around your foot because the foot swells during running and walking. On hot days, the average runner will move up one-half shoe size.
- In general, running shoes are designed to handle a certain amount of “looseness.” If you are getting blisters when wearing a loose shoe, snug the laces.
- Several shoe companies have some shoes in widths.

## Shoes for women

Women’s shoes tend to be slightly narrower than those for men, and the heel is usually a bit smaller. The quality of the major running shoe brands is equal whether for men or women, but about 25% of women runners have feet that can fit better into men’s shoes. Usually the confusion comes for women who wear large sizes. The better running stores can help you make a choice in this area.

## If the shoe color doesn’t match your outfit, it’s not the end of the world

I receive several emails every year about injuries that were produced by wearing the wrong shoe. Some of these are “fashion injuries” in which the runner picked a shoe because the color matched the outfit. Remember that there are no fashion police out there on the running trails.

## Breaking in a new shoe

- Wear the new shoe around the house for a few minutes each day for a week. If you stay on carpet, and the shoe doesn’t fit correctly, you can exchange it at the store, but if you have put some wear on the shoe, dirt, etc., few stores will take it back.
- In most cases you will find that the shoe feels comfortable enough to run immediately. It is best to continue walking in the shoe, gradually allowing the foot to accommodate to the arch, the heel, the ankle pads, and to make other adjustments. If you run in the shoe too soon, blisters are often the result.
- If there are no rubbing issues on the foot when walking, you could walk in the new shoe for a gradually increasing amount for 2-4 days.
- On the first run, just run about half a mile in the shoe. Put on your old shoes and continue the run.
- On each successive run, increase the amount run in the new shoe for 3-4 runs. At this point, you will usually have the new shoe broken in.

### ***How do you know when it's time to get a new shoe?***

1. When you have been using a shoe for 3-4 weeks successfully, buy another pair of exactly the same model, make, size, etc. The reason for this is that the shoe companies often make significant changes or discontinue shoe models (even successful ones) every 6-8 months.
2. Walk around the house in the new shoe for a few days.
3. After the shoe feels broken in, run the first half-mile of one of your weekly runs in the new shoe, then put on the shoe that is already broken in.
4. On the "shoe break-in" day, gradually run a little more in the new shoe. Continue to do this only one day a week.
5. Several weeks later, you will notice that the new shoe offers more bounce than the old one.
6. When the old shoe doesn't offer the support you need, shift to the new pair.
7. Start breaking in a third pair.

# Setting Yourself Up for Running Success

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## ***Motivation Tips***

- Put all group runs on your appointment schedule—and be there
- Get a training journal
- Schedule your runs at least 2 weeks in advance
- Commit to 3 days, every week, look ahead, and write down the three days a week you will run each week for 2-3 weeks. Be sure to pick a time when the temperature is OK for you, and a time period when you should have open time. Lock it in! The commitment to yourself to simply get out there 3 times a week will be reinforced significantly by writing it down. The final link in the motivational chain is to run and walk on the designated days. If you wait until the spirit moves you to run, you will probably have many empty spaces in your training journal. You must also be in charge of the little things that keep the schedule filled—such as spending a few minutes a week to plan your weekly runs and to reward yourself afterward.
- Regularity is important for the body and the mind. When you have 3 exercise-free days between runs, you start to lose some of your running conditioning and adaptations.
- Every other day is better than running 2 or 3 days in a row. The running muscles will rebuild and rebound more quickly, and you'll find yourself wanting to get out there. Also, your mind and spirit are more likely to pull you out on your next run if you schedule every second day.
- You don't have to use a running specialized training journal. A common notebook or calendar can work just as well to help you take control over your success. Schedule your running “appointments” as if they were your most important business client—or your boss, and make sure that you show up at each appointment.

## **Top Priority: Enjoying the first three weeks of running**

A high percentage of those who follow the schedule below for 3 weeks will continue for 6 months. So, write down your schedule, or follow the successful one below for the next 21 days. Stick to it. After running now for over half a century, I can tell you that the first 3 weeks are crucial for making running a positive habit.

### **Rules for each running day**

1. Run at a time of the day when the weather is comfortable.
2. If the weather doesn't cooperate, have an indoor alternative: treadmill, indoor track, indoor space where running is allowed, etc.
3. No huffing and puffing is allowed. Run at a slow pace for 10-15 seconds, and walk for a minute or two.
4. As much as possible, pick a pleasing venue to run
5. Reward yourself afterward: a smoothie, another snack, running shoes, running outfit.

### **Once you've run for 6 months, you're hooked!**

The "half year achievers" develop a positive addiction to running - and a very high percentage continue for life. In this book you will receive a schedule that lasts for 6 months. You can break this up any way you wish. Some runners like to focus on one week at a time, others a month, while others 3-6 months. Do what is motivational for you.

# Your First Week— How to Begin and Continue

**“The most important week is your first week.—  
It only takes 3 runs to get started!”**

*It's time to learn by doing. Here is a first run instruction list that will ease you into running—a “shakedown cruise” for your body.*

## **A caffeine boost?**

To get the central nervous system ready for exercise, many runners have a cup of coffee, tea, or diet drink about an hour before they run. If your blood sugar level is low due to any reason (especially in the afternoon), eat about half of an energy bar or drink 100-200 calories of a sports drink—especially one that has about 20% protein—about 25-30 minutes before the start of the run. If you have problems with caffeine, don't use it.

## **Your running stride**

Run with more of a shuffle: feet low to the ground, lightly touching. Don't lift your knees. In general, make it easy on yourself. For more suggestions on easier running, see the running form section of this book.

## ***The first run***

1. Put on a pair of comfortable walking shoes (running shoes if you have them).
2. Put on light, comfortable clothes—see “clothing thermometer” in this book.  
**Note:** clothes don't have to be designed for exercise—just comfortable.
3. Walk for 3 minutes at a slow walk to warm the muscles up gently.
4. For 2 more minutes, continue to walk slowly, or increase to a normal walk pace if you wish.
5. Then alternate 5-10 seconds of running with 1-2 minutes of comfortable walking.
6. Do this for 5-10 minutes—no more.
7. Walk slowly for 5-10 minutes as a “warm down.”

### **Warm-up:**

By walking for 3 minutes, very slowly, then walking at a comfortable, but slightly faster pace for 2 minutes, you will gently move the tendons and ligaments through the necessary range of motion. At the same time, you'll send blood into the muscles, as you get the heart, lungs, and circulation system ready for gentle exertion. Your nervous system works better when you have at

least 5 minutes of easy movement as a warm-up. If you need more minutes of slow walking, continue walking until you feel warmed up.

### **What? No stretching?**

That's right—I have analyzed the research and can't find a single study showing benefits to distance runners. Many studies show that stretching aggravates injuries and can prolong the healing process.

### **Breathing—no huffing and puffing**

Don't let the level of exertion get to the point that you must huff and puff. You want to be able to talk or sing as you do your walking and running. This is called the "talk test."

### **Warm down:**

Just walk easily for 5-10 minutes. It is important that you keep walking after you do any running. Don't ever go right into the shower after running vigorously, and don't stand around immediately after exertion either. This is a stress on your heart.

### **The day after**

The next day, after your first run, just walk easily for 10-15 minutes.

### ***The second run***

Two days after your first run, it's your "game day" again. As long as you have recovered quickly from the first run, repeat the same routine as the first time, but extend the run-walk section by 3-5 minutes. If you haven't fully recovered, walk more and run less. In other words, extend your warm up to 8 minutes of walking. Then run for 3-5 seconds, and walk slowly for 2 minutes.

### **Alternate**

Continue to do run-walk one day, and a day of just walking the next. The time that you spend walking on the walking only-days could be extended 5 minutes each day. As long as the legs and body are recovering, you could continue increasing the run-walk segment by an additional 3-5 minutes until the total reaches 30 minutes. See the schedule that follows this chapter.

## **Regularity**

Regularity is extremely important during the first 8 weeks. If you run, even a little, every other day, your body makes the adaptations, and starts to look forward to the experience. If you wait 3 days between runs, you start to lose the adaptations and your body complains at the beginning of each run. Getting into a habit is the most helpful way to make it past 3 weeks.

## **It's OK to skip some of the walk days**

If you really have to leave out some of your exercise days, let them be walk days. Try to make it to each of the running “appointments.”

## **Reward yourself!**

After you have finished your first week of three sessions, congratulate yourself with a special running outfit, meal, trip to a great run-walk area, etc. Remember that rewards can be very powerful.

***Congratulations! You're on your way running!***

# Your Three Week Schedule

If there is any time in your life when you adjust your schedule so that you can exercise, this is it!

*If you can maintain the next three weeks of running (only 9 days of running) according to my experience, you have about an 80% chance of continuing running for 6 months. And if you make it to the “six month club” you will tend to continue as a life-long runner. Here are some tips for your 21 day mission:*

- Find a place in your schedule when you are very likely to have time to walk and run. For most people this means getting up 40 minutes earlier. Go to bed 40 minutes earlier. But even if you don't, you can get by with 40 minutes less sleep. The overwhelming response from runners I've worked with who've said they couldn't live without those 40 minutes but tried is they really had no problem. The vitality you gain from your run will energize the rest of your day.
- Get your spouse, significant other, friends, co-workers, etc., to be your support team. Promise that if you get through the next 3 weeks having done the runs, you will have a party for them, picnic, whatever. Pick supportive people who will email you and will be supportive during and after the training, and the celebration.
- Have a friend or three who you can call in case you have a low motivation day. Just the voice on the phone can usually get you out the door. Of course, it is always better to have a positive and enthusiastic person in this role.
- It is best to also have a back-up time to run. The usual times for this are at noon or after work.
- While commuter traffic is high, get in your run; some get to work very early, and others run immediately after work.
- If necessary, you can break up your run into several segments.
- **Focus on the running days!** While the walking days on Tuesday, Thursday, and Sunday will help with fat burning and overall conditioning, these are not needed

for your running improvement. If you have to spend that 20-30 minutes for family, social, or work time, take it. Even better, structure some family or social time as you walk together. There are many well-engineered strollers that are easy to push. You could also have friends go with you on a bike, etc.

### Increasing the length of the run

After week two, you can increase the amount of running to between 10 and 15 seconds each minute if you are feeling fine with this. Otherwise, just stick with 5-10 seconds. You don't have to increase the running segment at all to receive most of the benefits of running. For those who want to increase the running segments, I have provided guidelines—but you should determine the amount of walking/running each day that allows you to feel good with no aches and pains.

***Remember, no huffing and puffing! Add more walking/less running to keep the huffing under control***

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#### WEEK 2

***Mission:*** You are continuing to increase distance. On Saturday, pick a scenic place for your workout.

15sec run/45sec walk or 10 sec run/30 sec walk

Mon—10 min

Wed—13 min

Sat—15 min of walking then 13 min of (run 5-10 sec/walk rest of the minute) then 10-15 min of walking

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#### WEEK 3

***Mission:*** You're really making progress now—getting up near the half hour mark! On Saturday, ask some friends to go with you for the warm up and warm down and have a picnic afterward. You've made it 3 weeks. Keep going; you have an easy week coming.

18sec run/42sec walk

Mon—14 min

Wed—16 min

Sat—15 min of walking then 16 min of (run 5-10 sec/walk rest of the minute) then 10-15 min of walking

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## WEEK 4

Mission: Rest a bit. This is an easier week to make sure the body catches up. You have earned this. It's time for your 3 week party. Pick the day and the place, and celebrate.

18sec run/42sec walk

Mon—15 min

Wed—18 min

Sat—15 min of walking then 18 min of (run 5-10 sec/walk rest of the minute) then 10-15 min of walking

# The Galloway Run-Walk-Run Method

Strategic, planned walk breaks gives each runner control over fatigue and running enjoyment

*One of the wonderful aspects of running is that there is no definition of a “runner” that you must live up to. There are also no rules you must follow as you do your daily run. You are the captain of your running ship, and it is you who determines how far, how fast, and how much you will run, walk, etc. Yes, running has always been a freestyle type of activity where each individual is empowered to mix and match the many variables, and come out with the running experience that he or she chooses. Walking is the most important variable for the first time runner, and can even give the veteran a chance to improve time. Here’s how it works.*

**Note:** for more information, see my book RUN-WALK-RUN.

## **Don’t run until you’re tired--walk early and often**

If you walk before your running muscles start to get tired, you allow the muscle to recover instantly—increasing your capacity for exercise while reducing the chance of next-day soreness.

The “method” part involves having a strategy. By using a ratio of running and walking, you will manage your fatigue. Using this fatigue-reduction tool early gives you the muscle resources, and the mental confidence to cope with any challenges that can come later. Even when you don’t need the extra muscle strength and resiliency bestowed by the method, you will feel better during and after your run, and finish knowing that you could have gone further.

## **The run-walk method is very simple: you set up a plan of regular short run segments, followed by walk breaks, and repeat**

Walk breaks allow you to take control over fatigue in advance, so that you can enjoy every run. By taking them early and often you can feel strong, even after a run that is very long for you. Beginners will alternate very short run segments with short walks. Even elite runners find that walk breaks on long runs allow them to recover faster. There is no need to reach the end of a run feeling exhausted if you insert enough walk breaks, for you, on that day.

### ***Walk Breaks***

- erase fatigue
- speed recovery
- push back your fatigue wall
- give you control over your level of fatigue
- allow for endorphins to collect during each walk break—you feel good!
- break up the distance into manageable units (“only 20 seconds”)
- reduce the chance of aches, pains and injury
- allow you to feel good afterward - carrying on the rest of your day without debilitating fatigue
- give you all of the endurance of the distance of each session—without the pain
- allow older runners to recover fast, and feel as good or better than the younger days

### **A short and gentle walking stride**

It's better to walk slowly, with a short stride. Long strides can irritate the shins, whether running or walking. Relax and enjoy the walk.

No need ever to eliminate the walk breaks

Some beginners assume that they must work toward the day when they don't have to take any walk breaks at all. This is up to the individual, but is not recommended.

### **How to keep track of the walk breaks**

There is now a Run/Walk/Run timer which can be set to beep when it's time to walk, and then beep again when it's time to start up again. Check our website ([www.jeffgalloway.com](http://www.jeffgalloway.com)), or a good running store for advice in this area.

### ***How to use walk breaks***

1. Start by running for 5-10 seconds and walking about 1 minute.
2. If you feel good during and after the run, continue with this ratio. If not, run less until you feel good.

3. After 3-6 sessions at the ratio, add 5-10 seconds of running, maintaining the same amount of walking.
4. On short runs, you can either stay at the current strategy or gradually increase the running/decrease the walking—week by week.
5. On long runs, keep the amount of running low, with more walking. You will get all of the endurance of a run, based upon the distance covered—even if you walked the entire distance of the long workout.
6. On any given day, when you need more walking, take it. Don't ever be afraid to drop back to make the run more fun, and less tiring.
7. There is no goal to run non-stop. You maintain control over fatigue by inserting walk breaks as needed.

# Getting Physical: What Happens When We Get in Shape

## **Humans are designed to improve**

When we regularly perform endurance exercise, many positive changes occur inside us. I believe that this is due to the way our ancient ancestors adapted our bodies to walk and run for long distances. Assuming then that our physical design and purpose is long distance forward motion, it's no surprise that we feel so good when we do it—we are going back to our roots.

## **Is our body lazy?**

Maybe this is too strong a statement. Let's say that our bodies want to conserve resources by doing the smallest amount of work they can get away with. If we are sedentary and never exercise, the heart slowly loses its efficiency, deposits build up in the arteries, and the lungs become less efficient because they don't have to be efficient. Only when we put these important health components to a gentle test, as in long runs, is the body forced to respond by improving in dozens of ways.

## **Teamwork**

When called into action, the heart, lungs, muscles, tendons, central nervous system, brain, and blood system are programmed to work as a team. The right brain intuitively solves problems, manages resources, and steers us toward the many lasting health benefits resulting from running and walking.

Your leg muscles significantly help to pump blood back to the heart. By gradually extending the length of your long run, you produce very fit muscle cells. They get stronger and more efficient in moving blood in, and pushing waste produces through the system and back to the heart. Some cardiovascular experts who study the heart believe that the cumulative effect of endurance-trained leg muscles can pump significant blood flow back to the heart.

Why does long distance exercise keep the heart healthy? Your heart is a muscle and responds positively to endurance exercise. The slight increase in heart rate, maintained during a gradually

increasing long run each week, keeps this most important muscle in shape. A strong and effective heart pumps blood more effectively not only when you exercise. Heart specialists say that this “fit” heart is more resistant to heart disease at all times. But, if your diet is full of artery clogging foods, a strong heart will not make you immune to heart disease. A diet that is high in saturated fat and trans fat has been shown to significantly increase the chance of heart attacks, strokes, etc.

## The lungs

On our long runs, the muscles demand oxygen, and must have an adequate supply to burn fat and exercise aerobically. Each muscle is like a factory composed of thousands of muscle cells who do the work. Unlike some factory workers, these are passionate and dedicated team members ready to work 24/7 to keep us moving—even when we push them too far over and over again. Running, even in short amounts, done slowly, calls them into action, stimulates them to go to exhaustion, and serves to mold them into a team.

## Endorphins kill pain, make you feel good

Another important member of the team, the endorphins, manage the muscle pain and provide a positive lift.

## What is endurance exercise?

The essence of endurance is to go farther—to keep doing an exercise long enough, so that the body must find more efficient ways of moving, of processing energy, sending blood, etc. For untrained muscles, a run-walk of 10 minutes will do this. As we push back this threshold, our goal is to get to 2 sessions a week of 30 minutes each, with a long one that pushes up to the current endurance limit or beyond (more than 30 minutes).

Long one once a week pushes back the endurance limits + Two 30 minute sessions which maintain the adaptations gained on the long one = **You the endurance athlete.**

## Stress plus rest produces improvement

When we run and walk a little farther than we’ve gone in the past month or so, this gentle stress breaks down the muscle cells, tendons, etc. Our bodies are programmed to rebuild stronger than before if you have enough rest afterward (usually 48 hours), so that the rebuilding can take place.

## **It all starts by gently stressing the system**

When we exercise about every other day, our body becomes adapted to the speed and distance currently done. To improve endurance, we start by doing a run-walk that is slightly longer than we have been doing. As you exceed the current distance limit, tired muscle fibers keep working beyond their capacity. The extra work of an additional half mile or mile may not be perceived during the longer run, but produces after-effects the next day: sore muscles, a longer time needed to feel smooth when walking, and muscles that feel tired.

Looking inside the cell, afterward, you'll see tears in the muscle cell membrane. The mitochondria (that process the energy inside the cell) are swollen. Glycogen (the energy supply needed for the first 15 minutes of exercise) is significantly reduced. There are waste products from exercise, and even bits of muscle tissue, and other after effects from a hard effort. Sometimes, breaks in the blood vessels and arteries occur with leakage of blood into the muscles.

## **Quality rest is crucial: 48 hours between workouts**

Without sufficient rest, the rebuilding will not proceed as quickly, or as well as it could. The key to rebuilding stressed muscle cells is to avoid exercises that strenuously use the calf muscle (stair machines, step aerobics, spinning out of the saddle) for the 48 hour period between running workouts.

If you don't have time on the non-running days to do the alternative exercise, don't feel guilty. Cross training is not necessary for running improvement. Why do it? Well, it helps those who want to burn more fat. Also, many new runners like the way they feel after running, and want to feel that way every day.

## **Junk miles**

Some beginners feel so good when they start a running program that they "sneak in" a few miles on the days they should be resting. They often lie to themselves, assuming that this short distance isn't really running.

The problem is that these short runs, which don't improve your conditioning, don't give your muscles the rest needed for maximum recovery. They are called "junk miles." It's always better to stay with a 48 hour period between runs—the standard, proven recovery interval. With gentle increases, as noted in the training programs in this book, your body should rebound stronger than before, ready for a new challenge.

## **Regularity**

To maintain the adaptations, you must regularly exercise every 2-3 days. Waiting longer than this will cause a slight loss in the capacity you have been developing each day. The longer you wait, beyond 3 days, the harder it will be to start up again. Staying regular with your exercise is the best policy.

## **Difference between aerobic and anaerobic exercise**

Aerobic means in the presence of oxygen. If you are running aerobically, you will be running slow enough to be within your current capabilities, so that your muscles can get enough oxygen to process the energy in the cells (burning fat in most cases). The minimal waste products produced during aerobic running can be easily removed.

Anaerobic running means going at a pace that is too fast or too long for you, putting you outside of your trained range. Your muscles can't get enough oxygen to burn the most efficient fuel, fat, so they shift to the stored sugar, glycogen. The waste products from this fuel pile up quickly in the cells, tightening the muscles, and causing you to breathe heavily. If you keep running anaerobically, you will have to slow down significantly or stop. Anaerobic running requires a lot longer recovery period.

# Your Journal Will Inspire You

Using a journal keeps you in the conscious brain and puts you in control over your running

*Of all the activities that surround running, it is the writing and review of your journal that gives the greatest control over the direction of your running, so that you can make adjustments. It only takes a few minutes every other day to record the key information. Looking back through your entries will provide laughs and enjoyment.*

## **This is your book**

Yes, you are writing a book. At the most basic, you will have an outline of your running life during the next few months. No one tells you what goes into this book. As runners record their entries in the log, they realize that they can use the same journal to organize other areas of life. Even runners who are not fired up about the process at first, are usually impressed at how many benefits flow from this tool. Since you don't need to show anyone your journal, you can let your feelings go as you write. Upon review, your emotional response to a given workout can be very interesting months or years later.

## **THE VARIOUS TYPES OF JOURNALS**

### **Calendar—facing you on the wall**

Many runners start recording their runs on a wall calendar, or one that is posted on the refrigerator. Looking at the miles recorded is empowering. But, equally motivating for many is seeing too many “zeros” on days that should have been running days. If you're not sure whether you will really get into this journal process, you may find it easiest to start with a calendar.

## **An organized running journal**

When you use a product that is designed for running, you don't have to think to record the facts. The spaces on the page ask you for certain info, and you will learn to fill it very quickly. This leaves you time to use some of the open space for the creative thoughts and ideas that pop out during a run. Look at the various journals available, and pick one that looks to be easier to use, and to carry with you. (Check out Jeff Galloway's Running Journal at [www.JeffGalloway.com](http://www.JeffGalloway.com))

## **Notebook**

You don't need to have a commercial product. You can create your own journal by using a basic school notebook of your choice. Find one of the size that works best with your lifestyle (briefcase, purse, etc.).

## **Apps & Websites**

There are a growing number of software products, websites and apps that instruct, allow you to sort through information, while being entertained. Some software (including mine) allows for you to download data from a heart monitor or GPS watch.

# **THE WRITING PROCESS**

## **1. Capturing the flow from the right brain**

Try to have the log handy, so that you can record info after a run. Immediately after a run, you will have fresh perceptions, and will be more likely to record the right brain images and thoughts that tend to fade quickly.

## **2. Just the facts**

At first, spend a few seconds, and quickly jot down the key info that you want recorded. If you have to think about an item, skip it and just fill in the items you can fill in quickly.

Here is a list of items that many runners use:

### **Date:**

Morning Pulse

Time of run:

Distance covered:

Time running:

Weather:

Temp

Precipitation

Humidity

**Comments:**

Walk-Run frequency

Any special segments of the run (speed, hills, race, etc.)

Running companion

Terrain

How did you feel (1-10)

Go back over the list again, and fill in more details— emotional responses, changes in energy or blood sugar level, and location of places where you had aches and pains— even if they went away during the run. You are looking for patterns of items that could indicate injury, blood sugar problems, lingering fatigue, etc.

**3. Helpful additions (usually in a blank section at the bottom of the page)**

- Improvement Thoughts
- Things I should have done differently
- Interesting Happenings
- Funny things
- Strange things
- Stories, right brain crazy thoughts

# Why Some People Burn a Lot More Fat

*Even if you don't lose a pound, if you run regularly, you'll receive a series of health benefits. Studies at the Cooper Clinic, founded by Dr. Kenneth Cooper in Dallas, TX, USA, and other organizations, have shown that even obese people lower their risk factors for heart disease when they exercise regularly.*

Slow, aerobic running is one of the very best ways to burn fat. But most runners, during their first few months of running, usually hold their own showing minimal or no weight loss. This is actually a victory over the set point. First, you are avoiding the average set point inspired increase of 3-4 pounds a year. But, runners are actually burning fat by maintaining weight. How can this be? Read on.

As you run, your body stores more glycogen and water all over the body to process energy, and cool you off. Your blood volume also increases. All of these internal changes help you exercise better, but they cause a weight gain (not a fat gain). If your weight is the same a year after starting regular exercise, you have burned off several pounds of fat.

Don't let the scales drive you crazy.

Long-term fat burnoff usually requires some discipline and focus. If you will take responsibility for managing your eating and doing your running and walking, and have a strategy using an app or website, etc., you will succeed. One secret to fat burning success is being more active all day long. Once you learn to walk instead of sit, you will be amazed at how many steps you will take per day:

**Steps = Calories Burned**

## **Aerobic running burns fat**

When you are taking liberal walk breaks, and running totally within your physical capacity (no huffing and puffing), your muscles are being supplied with enough oxygen to do the work. They are aerobic. If you run too hard, you overwhelm the capacity of the muscles, the blood system cannot deliver enough oxygen to the muscles and you are anaerobic.

Oxygen is needed to burn fat. Therefore, running at an easy pace will keep you in the aerobic, or “fat burning” zone.

When you run too fast, for that day, and your muscles can't get enough oxygen you will huff and puff. This is the sign that you are building up an oxygen debt. Without oxygen, the muscles turn to stored glycogen, which produces a high amount of waste product.

## **Fat burning training program**

- One long run-walk a week of 60 min+
- Two run-walks of 45 min +
- 2-3 alternative exercise sessions of 45 min +
- Taking an additional 6000 (or more) steps a day in your daily activities

## **Sugar-burning during the first 15 min. of exercise**

Glycogen is the quick access fuel your body uses during the first quarter hour of exercise. Those who don't exercise longer than 15 minutes will not get into fat burning, and won't train their muscles to burn this fuel. But, if you have been depriving yourself of carbohydrates, as when on a lowcarb diet, you'll have trouble with energy and motivation.

Glycogen produces a high amount of waste product—mostly lactic acid. If you move slowly with mostly walking, there is no significant buildup. Even when the pace feels slow, if you are huffing and puffing within the first 10 minutes, you have been going too fast. When in doubt, extend your walking at the beginning and go slower.

## **From 15 minutes to 45 minutes you will transition into fat burning**

If you are exercising within your capabilities, your body starts to break down body fat, and use it as fuel. Fat is actually a more efficient fuel, producing less waste product.

This transition continues for the next 30 minutes or so. By the time you've been exercising within your capabilities for 45-50 minutes, you will be burning mostly fat if the muscles are trained to do this. With lots of walking, and a slow pace, almost anyone can work up to three sessions of 45 minutes each.

### **Three sessions a week in the fat burn zone**

Even the most un-trained muscles that have only burned glycogen for 50 years can be trained to burn fat under one condition:

- **Get into the fat-burning zone 3 times a week (45+ min.a week).**

### **One session a week beyond 90 minutes**

The endurance session is designed to keep you in the fat burning zone for an extended period. For best results, this should be done every week, and should increase gradually to around 90 minutes. If you don't have time for a 90 minute session, shoot for 60 minutes.

**“By running and walking for 90 minutes each week, the leg muscles become fat burners. Over time, this means that you will burn more fat when you are sitting around all day at your desk, and even burn it when you are sleeping at night.”**

### **Walk breaks allow you to go farther without getting tired**

This pushes you into the fat burning zone while allowing for a quick recovery of the muscles. For fat-burning purposes, it is best to walk earlier, and walk more often.

The number of calories you burn is based upon the number of miles covered. Walk breaks allow you to cover more distance each day without tiring yourself.

By lowering the exertion level, you will stay in the fat burning zone longer—usually for the whole session. When in doubt, it's best to walk more and slow down.

# Good Blood Sugar = Motivation

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*The blood sugar level (BSL) determines how good you feel. When it is at a good, moderate, regular level you feel good, stable and motivated. If you eat too much sugar, your BSL can rise too high. You'll feel really good for a while, but the excess sugar triggers a release of insulin that usually pushes it too low. In this state, you don't have energy, mental focus is foggy, and motivation goes down rapidly. When blood sugar level is maintained throughout the day, you will be more motivated to exercise, and feel like adding other movement to your life. You'll have a more positive mental attitude, and be more likely to deal with stress and solve problems. Just as eating throughout the day keeps metabolism up, the steady infusion of balanced nutrients all day long will maintain stable blood sugar levels.*

You don't want to get on the "bad side" of your BSL. Low levels are a stress on the system, and literally mess with your mind. Your brain is fed by blood sugar and when the supply goes down, your mental stress goes up.

If you have not eaten for several hours before a run-walk, you'll receive an increase in the number of negative messages telling you that you don't have the energy to exercise, that it will hurt, and many others.

The simple act of eating a snack that has carbohydrate and about 20% protein will reduce the negative messages, make you feel good, and get you out the door. Keeping a snack as a BSL booster can often be the difference whether you get out and run that day, or not.

## The BSL roller coaster

Eating a snack with too many calories of simple carbohydrate can be counter-productive for BSL maintenance. As mentioned above, when the sugar level gets too high, your body produces insulin, sending BSL lower than before. The tendency is to eat again, which produces excess calories that are converted into fat. But if you don't eat, you'll stay hungry and pretty miserable—in no mood to exercise or move around and burn calories, or get in your run for the day.

## Eating every 2-3 hours is best

Once you find which snacks work best to maintain your BSL, most people maintain a stable blood sugar level better by eating small meals regularly, every 2-3 hours. As noted in the previous chapter, it's best to combine complex carbs with protein, and a small amount of fat.

## Do I have to eat before running?

Only if your blood sugar is low. Most who run-walk in the morning don't need to eat anything before the start. As mentioned above, if your blood sugar level is low in the afternoon, and you have a run scheduled, a snack can help when taken about 30 minutes before the run. If you feel that a morning snack will help, the only issue is to avoid consuming so much that you get an upset stomach.

For best results in raising blood sugar when it is too low (within 30 minutes before a run) a snack should have about 80% of the calories in simple carbohydrate and 20% in protein. This promotes the production of insulin which is helpful before a run in getting the glycogen in your muscles ready for use. The product Accelerade has worked best among the thousands of runners I hear from every year. It has the 80%/20% ratio of carb to protein. If you eat an energy bar with the 80/20 ratio, be sure to drink 6-8 oz of water with it.

## Eating during exercise

Most exercisers don't need to worry about eating or drinking during a run-walk until the length of the session exceeds 90 minutes. At this point, there are several options. In each case, wait until you have been exercising for 40 minutes before starting.

**GU or Gel products**—these come in small packets, and are the consistency of honey or thick syrup. The most successful way to take them is to put 1-2 packets in a small plastic bottle with a pop-top. About every 10-15 minutes, take a small amount with a sip or two of water.

**Energy Bars**—cut into 8-10 pieces and take a piece, with a couple of sips of water, every 10-15 minutes.

**Candy**—particularly gummi bears or hard candies are good. The usual consumption is 1-2 about every 10 minutes

**Sports Drinks**—since there is a significant percentage of nausea among those who drink during exercise, this is not my top recommendation. If you have found this to work for you, use it exactly as you have used it before.

**It is important to re-load after exercise—within 30 minutes**

Whenever you have finished a hard or long workout (for you), a reloading snack will help you recover faster. Again, the 80/20 ratio of carb to protein has been most successful in reloading the muscles. The product that has worked best among the thousands I work with each year is Endurox R4.

# Running Form

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*I believe that running is an inertia activity: your mission is just to keep the momentum. Very little strength is needed to run. The first few strides get you into motion, and your focus is to stay in motion. To reduce fatigue, aches and pains, your body intuitively fine-tunes your motion, so that you minimize effort as you continue to run about every other day, month after month.*

Humans have many biomechanical adaptations working for them, which have been made more efficient over more than a million years of walking and running. The anatomical origin of efficiency in humans is the combination of the ankle and the Achilles tendon.

This is an extremely sophisticated system of levers, springs, balancing devices, and more—involving hundreds of component parts amazingly well coordinated. Biomechanics experts believe that this degree of development was not needed for walking. When our ancient ancestors had to run to survive, the evolution reached a new level of performance.

When we have the right balance of walking and running, a very little amount of effort from the calf muscle produces a smooth continuation of forward movement. As the calf muscle gets in better shape, and improves endurance, you can keep going for mile after mile with little perceived effort. Other muscle groups offer support and fine-tune the process. When you feel aches and pains that might be due to the way you run, going back to the minimal use of the ankle and achilles tendon can often leave you feeling smooth and efficient very quickly.

## **A better way of running?**

There may be a better way to run for you; one that will leave your legs with more strength and fewer aches and pains. The fact is, however, that most runners are not far from great efficiency. Repeated research on runners has shown that most are running very close to their ideal. I believe this is due to the action of the right brain. After tens of thousands of steps, it keeps searching for (and then refines) the most efficient pattern of feet, legs, and body alignment. In my running schools and weekend retreats, I conduct an individual running form analysis with each runner. After having analyzed over 10 thousand runners,

I've also found that most are running in a very efficient way.

The problems are seldom big ones—but a series of small mistakes. By making a few minor adjustments, most runners can feel better on every run.

## **The big three: posture, stride, and bounce**

In these consultations, I've also discovered that when runners have problems, they tend to occur in three areas: Posture, stride, and bounce. And the problems tend to be very individual occurring most often in specific areas because of specific motions. Fatigue brings on most of the problems relating to form. Slight over stride, for example creates fatigue, and then weakness at the end of a run. As a tired body “wobbles”, other muscle groups try to keep the body on course, but are not designed for this.

### ***Three negative results of inefficient form:***

1. Fatigue becomes so severe that it takes much longer to recover.
2. Muscles are pushed so far beyond their limits that they break down and become injured.
3. The experience is so negative that the desire to run is reduced, producing burnout.

Almost everyone has some slight problem. I don't suggest that everyone should try to create perfect form. But when you become aware of your form problems, and make changes to keep them from producing aches and pains, you'll feel fewer aches, smoother running, and experience faster times. This chapter can help you understand why aches and pains tend to come out of form problems—and how you may be able to reduce or eliminate them.

## **Your own form check**

In some of my clinics, I use a digital camera that gives instant feedback. If you have one of these cameras, have a friend take pictures of you running from the side (not running towards or away from the camera) while you run on a flat surface. Some runners can check themselves while running alongside stores that offer a reflection in a plate glass window. The sections below will tell you what to look for.

## **If you feel relaxed and running is easy even at the end of a run—you're probably running correctly**

Overall, the running motion should feel easy. There should be no tension in your neck, back, shoulders or legs. A good way to correct problems is to change posture, foot or leg placement, etc., so that running is easier and there is no tightness or pain.

### **Posture—relaxed and upright**

Good running posture is actually good body posture. The head is naturally balanced over the shoulders, which are aligned over the hips. As the foot comes underneath, all of these elements are in balance, so that no energy is needed to prop up the body. You shouldn't have to work to pull a wayward body back from a wobble or inefficient motion.

#### **Error: Forward lean**

The posture errors tend to be mostly due to a forward lean—especially when we are tired. The head wants to get to the finish as soon as possible, but the legs can't go any faster. In their first races, beginners are often the ones whose heads are literally ahead of the body, which produces more than a few falls around the finish line. A forward lean will often concentrate fatigue, soreness, and tightness in the lower back, or neck.

It all starts with the head. When the neck muscles are relaxed, the head is usually in a natural position. If there is tension in the neck, or soreness afterward, the head is usually leaning too far forward. This triggers a more general upper body imbalance in which the head and chest are suspended slightly ahead of the hips and feet—often producing back pain or neck aggravation. Ask a running companion to tell you if and when your head is too far forward, or leaning down. The ideal position of the head is mostly upright with your eyes focused about 30-40 yards ahead of you.

#### **Error: Sitting back**

The hips are the other major postural area where runners can get out of alignment. A runner with this problem, when observed from the side, will have the butt behind the rest of the body. When the pelvis area is shifted back, the legs are not allowed to go through a natural range of motion, and the stride length becomes short. This produces a slower pace, even when spending significant effort. Many runners tend to hit harder on their heels when their hips are shifted back.

#### **A backward lean is rare**

It is rare for runners to lean back, but it happens. In my experience, this is usually due to a structural problem in the spine or hips. If you do this, and you're having pain in the neck, back or hips, you should see a doctor.

#### **Correction: "Puppet on a string"**

The best correction I've found to postural problems has been this mental exercise:

imagine that you are a puppet on a string. Suspended from up above like a puppet—from the head and each side of the shoulders—your head lines up above the shoulders, the hips come directly underneath, and the feet naturally touch lightly. It won't hurt anyone to do the "puppet" several times during a run.

It helps to combine this image with a deep breath. About every 4-5 minutes as you start to run after a walk break, take a deep, lower lung breath, straighten up and say "I'm a puppet." Then, imagine that you don't have to spend energy maintaining this upright posture because the strings

attached from above keep you on track. As you continue to do this, you reinforce good posture, and work on making this behavior a habit.

Upright posture not only allows you to stay relaxed; you will probably improve your stride length. When you lean forward, you'll be cutting your stride to stay balanced.

When you straighten up, you'll receive a stride bonus of an inch or so without any increase in energy.

### **An oxygen dividend**

Breathing improves when you straighten up. A leaning body can't get ideal use out of the lower lungs. This can cause side pain. When you run upright, the lower lungs can receive adequate air, absorb the oxygen better, and reduce the chance of side pain.

NOTE: A few runners I have known have structural issues, accident damage, etc. and naturally lean forward. If this is the way you run/walk and have no back/neck/hip issues then go with the way that is natural for you.

### **Feet low to the ground**

The most efficient stride is a shuffle—with feet next to the ground. As long as you pick your foot up enough to avoid stumbling over a rock or uneven pavement, stay low to the ground. Most runners don't need to get more than 1" clearance.

Your ankle does most of the work when the feet stay low. Mechanical energy will be your prime propulsion, saving muscles, feet, and energy. If you stay low to the ground, very little effort is required. Through this "shuffling" technique, running becomes almost automatic. When runners err on bounce, they try to push off too hard. This usually results in extra effort spent in lifting the body off the ground. You can think of this as energy wasted in the air; energy that could be used to run another mile or two.

The other negative force that penalizes a higher bounce is that of gravity. The higher you rise, the harder you will fall.

Each additional bounce off the ground delivers a lot more impact on feet and legs—which on long runs produces aches, pains and injuries.

### **The correction for too much bounce: Light touch**

The ideal foot placement should be so light that you don't usually feel yourself pushing off or landing. This means that your foot stays low to the ground, and goes through an efficient and natural motion. Instead of trying to overcome gravity, you get in synch with it.

Here's a "light touch drill": during the middle of a run, time yourself for 20 seconds. Focus on one item; touching so softly that you don't hear your feet. Earplugs are not allowed for this drill. Imagine that you are running on thin ice, or through a bed of hot coals. Do several of these 20 second touches, becoming quieter and quieter. You should feel very little impact on your feet as you do this drill.

### **Shorter stride length**

Studies have shown that as runners get faster, the stride length shortens. This clearly shows that the key to faster and more efficient running is increased cadence or turnover of feet and legs.

A major cause of aches, pains and injuries is a stride length that is too long. At the end of this chapter, you'll see a list of problems and how to correct them. When in doubt, it is always better to err on the side of having a shorter stride.

#### **Don't lift your knees!**

Even world-class distance runners don't do this because it tires the quadracep muscle (front of the thigh), leading to a stride that is too long to be efficient. The most common time when runners stride too long is at the end of a tiring run. This slight overstride, when the legs are tired, will leave your quads (front of thigh) sore the next day or two.

#### **Don't kick out too far in front of you!**

If you watch the natural movement of the leg, it will kick forward slightly as the foot gently moves forward in the running motion to contact the ground. Let this be a natural motion that produces no tightness in the muscles behind the lower or upper leg.

Tightness in the front of the shin, or behind the knee, or in the hamstring (back of the thigh) is a sign that you are kicking too far forward, and reaching out. Correct this by staying low to the ground, shortening the stride, and lightly touching the ground.

### **Cadence or turnover drill**

This is an easy drill that improves the efficiency of running, making running easier. This drill excels in how it helps to pull all the elements of good running form together at the same time. Over the weeks and months, if you do this drill once every week, you will find that your normal cadence slowly increases naturally.

1. Warm up by walking for 5 minutes, and running and walking very gently for 10 minutes.

2. Start jogging slowly for 1-2 minutes, and time yourself for 30 seconds. During this half minute, count the number of times your left foot touches.
3. Walk around for a minute or so.
4. On the second 30 second drill, increase the count by 1 or 2.
5. Repeat this 3-7 more times. Each time trying to increase by 1-2 additional counts.

In the process of improving turnover, the body's internal monitoring system coordinates a series of adaptations which pulls together all of the form components into an efficient team:

- Your foot touches more gently.
- Extra, inefficient motions of the foot and leg are reduced or eliminated.
- There is less effort is spent on pushing up or pushing forward.
- You stay lower to the ground.
- The ankle becomes more efficient.
- Ache and pain areas are not overused.

### **Acceleration-Glider Drill**

This drill will help you naturally and seamlessly move from a walk break, gently into a run, and then help you learn how to glide gently into the next walk break. For best results, do 4-8 of these, once a week. Many runners do the Acceleration-Glider right after the Cadence Drill.

1. Start by walking for 10 steps
2. Ease into running with a "shuffle." Use tiny steps, feet next to the surface, for @ 10 steps
3. Very gently increase to a slow jog and then a regular easy jog (for you) over @ 20 steps
4. At this point you can either start the glide for 20-30 steps
5. Gliding is using your momentum, as you gently and seamlessly ease back into a walk.
6. Walk for 10-30 steps or more and repeat 3-7 times.

### **Walking form**

Walking form is usually not an issue when walking at a gentle, strolling pace. But every year, there are runners who get injured because they are walking in a way that aggravates some area of the foot or leg. Most of these problems come from trying to walk too fast, with too long a stride, or from using a race-walking or power-walking technique.

1. **Avoid a long walking stride.** Maintain a relaxed motion that does not stress the

knees, tendons or muscles of the leg, feet, knees or hips. If you feel pain or aggravation in these areas, shorten your stride. Many runners find that they can learn to walk fairly fast with a short stride. But when in doubt, use the walk for recovery and ease off.

2. **Don't lead with your arms.** Minimal arm swing is best. Swinging the arms too much can encourage a longer walk stride which can push into aches and pains quickly. The extra rotation produced can also aggravate hips, shoulder, and neck areas. You want the legs to set the rhythm for your walk and your run. When this happens, you are more likely to get into the "zone" of the right brain.
3. **Let your feet move the way that is natural for them.** When walkers try techniques that supposedly increase stride length by landing further back on the heel, or pushing further on the toe (than the legs are designed to move), many get injured.

# Your First Race

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*You may say that you aren't competitive. You have no need to race. That's fine. But the neighborhood road races that you see all over the country are primarily for motivation. The participants in the average road race are folks like yourself that are trying hard to stay motivated. Enrolling in a race is a commitment to yourself to do the training each week to prepare.*

Most runners who arrive at their first race are surprised to see that most of the participants are average looking people.

Sure, there are always a few lean folks on the front line who are going for the trophy. Everyone else is there to share the excitement of the event, and to celebrate the moment of finishing.

Races are fun. If the energy could be put in a container, and used in your car, you wouldn't have to buy gasoline for your car for weeks. Once you have attended a race, you will want to go back. This is one place where almost everyone is in a good mood.

## **What to look for in a race**

- Fun and Festive—held in an interesting area, part of a town festival, music, or expo with exhibits.
- Well organized—the organizers...keep things organized: no long lines, easy to register, start goes off on time, water on the course, refreshments for all—even the slowest, no major problems.
- Refreshments—some races have water, others have a buffet.
- A good T-shirt or other reward—you'll wear it with pride.
- The organizers focus on average or beginning runners.

## Where to find out about races

### Running stores

This resource is at the top of our list because you can usually get entry forms plus some editorial comment about the race. Explain to the store folks that this is your first race, and you want to enjoy the whole experience. Select a fun event that has a high rating in the “what to look for” section, just above.

### Friends who run

Call a friend who has run for several years. Tell him or her that you are looking for a fun, upbeat race about every month. Go over the same categories listed above. Be sure to ask the friend for a contact number or website where you can find more information on the event, and possibly enter.

As with running store folks, the editorial comments and evaluation of an event can steer you to a good experience.

### Running clubs

Your running club can give you information about Parkruns and other events in your area.

### Newspaper listings

In many newspapers, there is a listing of community sports events in the weekend section. This comes out on Friday or Saturday in most cities, usually in the lifestyle section. Some listings can be in the sports section under “running” or “road races.” You can often find these listings on the website of the newspaper.

### Web searches

Just do a web search for “road races (your town)” or “5K (your town).” There are several event companies that serve as a registration center for many races: including [www.signmeup.com](http://www.signmeup.com) [www.active.com](http://www.active.com) From these sites you can sometimes find an event in your area, research it, and then sign up.

### How to register

1. Online. More and more of the road running events are conducting registration online. This allows you to bypass the process of finding an entry form, and sending it in before the deadline.
2. Fill out an entry and send it in. You will need to fill out your name, address, T-shirt size, etc., and then sign the waiver form. Be sure to include a check for the entry fee.
3. Show up on race day. Because some races don't do race day registration, be sure that you can do this. There is usually a penalty for waiting until the last minute—but you can see what the weather is like before you make the trek to the race.

## Most common race distance is a 5K (3.1 miles)

This is an excellent choice for your first race because it's about the shortest distance usually run, and in most areas you will have many from which to choose. Choose a race far enough in the future, so that you can build up a long runwalk.

Stage your training, so that you finish a training run-walk that is 1-2 miles longer than the distance you plan to run in the race about 7-10 days before the race itself.

## The long run is your training program for your race

You will notice from your schedule that you have one longer run-walk each week on the weekend. At first, this is run entirely by time.

Once your weekend run-walk has reached 30 minutes, you should run one of these on the track every month for 2 or 3 months, so that you can compute the distance you ran. Each lap around a standard track is about 400 meters. A 5K is actually 12.5 laps.

While some runners like to do their long runs around a track, others become very bored when they run there.

Running 1-2 laps at the beginning, in the middle, and at the end of the run will allow you to get a handle on how fast you are running, so that you can compute your distance for the day when running off the track.

Each week add about .25 to .4 miles to the distance of the long run. You want to run slower on the long runs than on your shorter weekly run-walks. Take the walk breaks as you need to avoid huffing and puffing. It is the distance covered that builds endurance, go slower

Here is a schedule of long runs to prepare for a 5K after you have reached 30 minutes as your long run:

WEEK #	Long Run Distance
1	1.25 miles (2km)
2	1.5 miles (2.5km)
3	1.75 miles (2km)
4	2.0 miles (3.5km)
5	2.25 miles (3.75km)
6	2.5 miles (4km)
7	2.75 miles (4.5km)
8	3.0 miles (5km)
9	3.25 miles (5.3km)

WEEK #	Long Run Distance
10	3.5 miles (5.6km)
11	5K Race

## Rehearsal

If at all possible, run one or more of your long runs on the racecourse. You'll learn how to get there, where to park (or which rapid transit station to exit), and what the site is like.

If you will be driving, drive into the parking area several times to make sure you understand how to go exactly where you need to park. This will help you to feel at home with the staging area on race day. Run over the last half-mile of the course at least twice. This is the most important part of the course to know. It's also beneficial to do the first part of the course to see which is best for walk breaks (sidewalks, etc.)

Visualize your line up position: at the back, along the side of the road. If you line up too far forward, you could slow down runners that are faster. You want to do this first race slowly, and have a good experience. This is most likely at the back of the pack. Because you will be taking your walk breaks, as in training, you need to stay at the side of the road. If there is a sidewalk, you can use this for your walk breaks.

## The afternoon before

Don't run the day before the race. You won't lose any conditioning if you take two days off from running leading up to the race. If the race has an expo or other festivities, this is often interesting.

Companies in the running business have displays, shoes, clothing, books, etc.—often at sale prices. Beware of sale shoes, however. It is best to go to a good running store, and go through the procedure noted in the shoe chapter above to select a shoe that is designed for the type of foot that you have.

Some races require you to pick up your race number, and sometimes your computer chip (explained below) the day before. Look at the website or the entry form for instructions about this. Most races allow you to pick up your materials on race day—but be sure.

## Race number

This is sometimes called a “bib number.” It should be pinned on the front of the garment you'll be wearing when you cross the finish line.

## Computer chip

More and more races are using technology that automatically picks up your race number and time as you cross the finish. You must wear this chip that is usually

laced on the shoes, near the top—or on the back of your race number (bib). Some companies have a velcro band that is attached to the ankle or arm. Read the instructions to make sure you are attaching this correctly. Be sure to turn this in after the race. The officials have volunteers to collect them, so stop and take them off your shoe, etc. There is a steep fine for those who don't turn in the chip. Chips in the race number usually don't need to be collected.

## **What to eat the night before your race**

Many runners assume, mistakenly, that they must eat a lot of food the night before. This is actually counterproductive. It takes at least 24 hours for most of the food you eat to be processed and useable in a race—usually longer. There is nothing you can eat the evening before a race that will help you. But eating too much, or the wrong foods for you, can be a real problem. A lot of

food in your gut when you are bouncing up and down in a race is stressful and can lead to “unloading.”

While you don't want to starve yourself the afternoon and evening before, the best strategy is to eat small meals, and taper down the amount as you get closer to bed time. As always, it's best to have done a “rehearsal” of eating, so that you know what works, how much, when to stop eating, and what foods to avoid.

The evening before your long run is a good time to work on your eating plan, and replicate the successful routine leading up to raceday.

## **Drinking**

The day before, drink when you are thirsty. If you haven't had a drink of water or sports drink in a couple of hours, drink half a cup to @ 250 ml every 1-2 hours. Don't drink a lot of fluid during the morning of the race itself. This can lead to bathroom breaks during the race itself. Many races have toilets around the course, but many do not. It is a very common practice for runners that have consumed too much fluid that morning to find a tree or alley along the course. Avoid this by drinking about 150 to 200ml as soon as you wake up.

**Tip:** If you practice drinking before your long runs, you can find the right amount of fluid that works best for you on raceday. Stage your drinks, so that you know when you will be taking toilet breaks.

**Pack your bag** and lay out your clothes, so that you don't have to think very much on race morning.

- Your watch, set up for the run-walk ratio you are using
- Shoes
- Socks
- Shorts

- Top—see clothing thermometer
- Pin race # on the front of the garment in which you will be finishing
- A few extra safety pins
- Water, Accelerade, pre-race and post race beverages (such as Endurox R4), and a cooler if you wish
- Food for the drive in, and the drive home
- Bandages, vasoline, any other first aid items you may need
- Cash for registration if you are doing race day registration (check for exact amount, including late fee)
- \$ 25-40 for gas, food, parking, etc.
- Race chip attached according to the race instructions
- A few jokes or stories to provide laughs or entertainment before the start
- A copy of the “race day checklist” which is just below this section

## Sleep

You may sleep well, or you may not. Don't worry about it if you don't sleep at all. Many runners I work with every year don't sleep at all the night before, and have the best race of their lives. Of course, don't try to go sleepless...but if it happens, it is not a problem—unless you tell yourself that it is a problem.

## Race day checklist

Photocopy this list, so that you will not only have a plan, but you can carry it out in a methodical way. Pack the list in your race bag. Don't try anything new the day of your race—except for health or safety. The only item I have heard about when used for the first time in a race that has helped is walk breaks. Even first time users benefit significantly. Otherwise, stick with your plan.

Fluid and potty stops—after you wake up, drink 4-6 oz. of water every half hour. If you have used Accelerade about 30 minutes before your runs, prepare it. Use a cooler if you wish. In order to avoid the bathroom stops, stop your fluid intake according to what has worked for you before.

Food—eat what you have eaten before your harder runs. It is OK not to eat at all before a 5K unless you are a diabetic, then go with the plan that you and your doctor have worked out.

Get your bearings—walk around the site to find where you want to line up (at the back of the pack), and how you will get to the start. Choose a side of the road that has more shoulder or sidewalk for ease in taking walk breaks.

Register or pick up your race number—if you already have all of your materials, you can bypass this step. If not, look at the signage in the registration area, and get in the right line.

Usually there is one for “race day registration” and one for those who registered online, or in the mail and need to pick up their numbers.

Start your warm up 40-50 minutes before the start. If possible, go backwards on the course for about .5-.6 miles and turn around. This will give you a preview of the most important part of your race—the finish. Here is the warmup routine:

- Walk for 5 minutes, slowly.
- Walk at a normal walking pace for 3-5 minutes, with a relaxed and short stride.
- Start your watch for the ratio of running and walking that you are using, and do this for 10 minutes.
- Walk around for 5-10 minutes.
- If you have time, walk around the staging area, read your jokes, laugh, relax.
- Get in position and pick one side of the road or the other where you want to line up.
- When the road is closed, and runners are called onto the road, go to the curb and stay at the side of the road, near or at the back of the crowd.

### **After the start**

Remember that you can control how you feel during and afterward by conservative pacing and walks.

- Stick with your run/walk ratio that has worked for you; take every walk break, especially the first one.
- If it is warm, slow down and walk more.
- Don't let yourself be pulled out too fast on the running portions.
- As people pass you, who don't take walk breaks, tell yourself that you will catch them later—you will.
- If anyone interprets your walking as weakness, say: “This is my proven strategy for a strong finish.”
- Talk with folks along the way, enjoy the course, smile often.
- On warm days, pour water over your head at the water stops (no need to drink on a 5K unless you want to).

### **At the finish**

- In the upright position
- With a smile on your face
- Wanting to do it again

### **After the finish**

- Keep walking for at least half a mile.
- Drink about 4-8 oz. of fluid.
- Within 30 min. of the finish, have a snack that is 80% carbohydrate/20% protein (Endurox R4 is best).
- If you can soak your legs in cool water during the first two hours after the race, do so.
- Walk for 20-30 minutes later in the day.

### **The next day**

- Walk for 30-60 minutes, very easy. This can be done at one time, or in installments.
- Keep drinking about 4-6 oz. an hour of water or sports drink like Accelerade.
- Wait at least a week before you either schedule your next race or vow to never run another one again.

# Running Injury Free

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*Many people will try to tell you that running will hurt your joints. According to the research, they are wrong. I've seen the reports in medical journals, the research, and heard the summaries from various top orthopedists. According to these reports that span several decades, runners have healthier joints than those who did not exercise. (Studies are cited in my book **RUNNING UNTIL YOU'RE 100**)*

While most running aches are preventable, almost everyone who starts a running program makes a mistake or two. But almost all of the aches that come from training mistakes go away with a couple of days of rest from exercise.

After over 50 years of running, I've had just about every injury runners can have. I'm proud to say, as I write this book, that for more than 30 years, I have not had a single overuse injury. It's not that hard to stay injury free.

The methods that I have used I pass on to you as one runner to another in this chapter.

## **Be sensitive to weak links**

Each of us has a very few areas that take on more stress, and tend to get most of the aches, pains and injuries. The most common areas are the knees, the foot, the shins, and the hip. Those who have been running for a year or more will usually know their own weak links. If you have a particular place on your knee that has been hurt before, and it hurts after a run, take an extra day or two off, and follow the suggestions on treating an injury listed below.

## **How do you know that you are injured?**

The following are the leading signs that you have an injury. If you feel any of the three below, you should stop your workout immediately, and take some extra rest days

(usually 2-3). Running (and sometimes even walking) at the early stages of an injury creates a dramatically worse injury—even on one run. If you take 2-3 days off at the first symptom, you may avoid having to

stop exercise for 2-3 months when running on the injury. It is always safer to err on the side of taking more time off.

1. **Inflammation**—any type of swelling
2. **Loss of function**—the foot, etc., doesn't work correctly
3. **Pain**—that does not go away when you walk for a few minutes

### **Losing conditioning**

Studies have shown that you can maintain conditioning even when you don't exercise for 5 days. Surely you want to continue regular running, but staying injury free has an even higher priority. So, don't be afraid to take up to 5 days off when a “weak link” kicks in. In most cases, you will only stop for 2-3 days.

### **Treatment**

It is always best, at the first sign of injury, to see a doctor (or with muscle injury a massage therapist) who wants to get you out there running as soon as possible.

The better doctors will explain what they believe is wrong (or tell you when he/she cannot come up with a diagnosis) and give you a treatment plan. This will give you great confidence in the process, which has been shown to speed the healing.

### **Treatments while you are waiting to see a doctor**

Unfortunately, most of the better doctors are so booked up that it takes a while to see them. While waiting for your appointment, here are some things other runners have done with success when one of the weak links shows inflammation, loss of function or pain:

1. Take at least 2-5 days off from any activity that could irritate it.
2. If the area is next to the skin (tendon, foot, etc.), rub a chunk of ice on the area(s)—constantly rubbing for 15 minutes until the area gets numb. Continue to do this for a week after you feel no symptoms.
3. If the problem is inside a joint or muscle, call your doctor and ask if you can use prescription strength anti-inflammatory medication. Don't take any medication without a doctor's advice—and follow that advice.
4. If you have a muscle injury, see a very successful sports massage therapist. Try to find one who has a lot of successful experience treating the area where you are injured. The magic fingers and hands can often work wonders.
5. Walk every other day if there is no irritation from walking.
6. Water running is another way of maintaining adaptations and conditioning.

## PREVENTING INJURY

Having had over a hundred injuries myself, and then having worked with tens of thousands who have worked through aches and pains, I've developed the suggestions below.

They are based upon my experience in advising as one runner to another. I'm proud to report that since I started following the advice that I give others, I've not had an overuse injury in over 36 years.

### **Take 48 hours between runs**

Running puts a lot more stress on the muscles than walking. Allowing the running muscles to rest for two days will provide a magic time period for recovery. Stair machine work should also be avoided during the 48 hour rest period (stair work uses the same muscles as running). Also avoid any other activities that seem to irritate the tendon.

### **Don't stretch!**

I've come full circle on this. A high percentage of the runners who report to me, injured, have either become injured because they stretched or aggravated the injury by stretching. When they stop stretching, a significant percentage report that the injury heals enough to run in a relatively short period of time.

The exception to this rule is when you have Ilio-tibial band injury. For this injury alone, stretching the I-T band when it tightens up during a run, seems to help runners continue to run while they heal.

### **Do the "toe squincher" exercise**

This exercise can be done 10-30 times a day on both feet (one at a time). Point the toes and squinch them until the foot cramps (only a few seconds). This strengthens the many little muscles in the foot that can provide a platform of support. It is particularly effective in preventing plantar fascia.

### **Don't increase total weekly distance more than 10% a week**

Monitor your mileage that you run (walking is usually OK) in a log book or calendar. If you exceed the 10 per cent increase on a given week, take an extra day off.

### **Avoid a long stride—both walking and running**

Running with more of a shuffle (feet close to the ground) reduces the chance of many injuries. Even walking with a long stride can irritate the shin muscles. Read the "Running Form" section for more information on developing an efficient running form.

***Note: For medical advice, see a doctor who wants to get you running***

**and walking. For more information, see *RUNNING INJURIES—TREATMENT AND PREVENTION* by Hannaford and Galloway**

## **QUICK TREATMENT TIPS (FROM ONE RUNNER TO ANOTHER)**

### **For all injuries**

1. Take 3 days off from running or any activity that could aggravate the area.
2. Avoid any activity that could aggravate the injury.
3. As you return to running, stay below the threshold of further irritation.

### **Muscle injuries**

1. Call your doctor's office, and see if you can take prescription strength anti-inflammatory medication.
2. See a sports massage therapist who has worked successfully on many runners. Deep tissue massage can speed the healing.

### **Tendon and foot injuries**

1. Rub a chunk of ice directly on the area for 15 minutes every night (keep rubbing until the area gets numb— about 15 minutes).

**Note:** ice bags, or gel ice don't seem to do any good at all

2. Foot injuries sometimes are helped by an orthopedic "boot."

### **Knee injuries**

1. Call your doctor's office to see if you can take prescription strength anti-inflammatory medication.
2. Gentle walking sometimes helps.
3. Sometimes the knee straps can relieve pain; ask your doctor.

### **Shin injuries**

1. If the pain gradually goes away as you walk on it, there is less worry of a stress fracture.
2. But if the pain hurts more as you walk or run on it—see a doctor! (possible stress fracture)

### **Starting back running before the injury has healed**

With most running injuries, you can continue to run even while the injury is healing. But first, you must have some time off to get the healing started. If you do this at the beginning of an injury, you will usually only need 2-5 days off. The longer you try to push through the problem, the more damage you produce, and the longer it will take

to heal. Stay in touch with the doctor at any stage of this healing/running process, and use your best judgement.

To allow for healing, once you have returned to running, stay below the threshold of further irritation. In other words, if the injury feels a little irritated when running at 2.5 miles, and starts hurting a little at 3 miles, you should run no more than 2 miles. And if your run-walk ratio is 30 sec run/1 min walk, you should drop back to 15 seconds run and 90 seconds walk.

Always allow a day of rest between running days. With most injuries you can cross train to maintain conditioning, but make sure that your injury will allow this. Again, your doctor can usually advise on this.

# Stretching

*It may surprise you to learn this, but stretching causes a lot of injuries. My surveys have found that among those who stretch regularly, stretching is the leading cause of injury.*

While there are some specific stretches that help some individuals, I believe that most people who run and walk don't need to stretch at all. I know that you will get a lot of advice to stretch—especially from those who are involved in other activities like tennis, swimming, soccer, golf, etc.

Running is significantly different than those other activities. In other sports, you are asking your body to do what it was not designed to do. Our ancient ancestors didn't play tennis or golf. But they did walk....and run.

If we do these two activities gently, as noted in this book, we will stay within the ranges of motion for which we were designed. Stretching pushes the tendons and muscles beyond what they are currently ready to do, and often pushes them into injury.

## **Tightness**

Don't be alarmed by the tightness you get from running and walking as you increase the distance. On an individual run, most of the tightness comes from muscle fatigue, and the waste products that are deposited as you continue to run. Stretching will not take away this type of tightness.

A false sense of relief I fully admit that if you stretch a tired, tight muscle, it feels better...for a short period.

After talking to dozens of physiologists, orthopedists, and other specialists, I've come to understand that stretching a tight muscle results in many small tears of the muscle fibers.

Your body senses this and sends hormones to kill the pain. Even one stretch under these conditions can injure a muscle, and definitely increases recovery time as your body repairs the stretching damage.

Even with light stretching, you will weaken the muscle. Some tightness is good. Your body will get a bit tighter as you run, for a while. This is due to the legs adapting to distance running. Your push from the foot is more effective, and your range of motion more efficient. I've been told by many biomechanics experts that this type of tightness, in most cases, reduces the chance of injury and makes running easier.

If you are having a problem with tightness, in a certain part of the body, massage can help—even using the self-help massage tools, such as “the stick.”

### **Yoga and Pilates?**

I communicate with runners about every week who get injured because they stretched during these programs. Even mild stretches that are outside your range of motion can be adverse to the joints, and tendons. The philosophical benefits of Yoga can be as significant as those from running.

If you benefit from such mental benefits go through the sessions—but don't stretch.

### **Ilio-tibial Band injury—the only major exception**

The ilio-tibial is a band of fascia that acts as a tendon. It starts at the hip and continues along the outside of each leg, attaching in several places below the knee. Besides the stretch noted here, individuals find that there are specific stretches that will help to release the tightness of their I-T band. Those who suffer from this injury can stretch before, after, or during a run-walk, or whenever it tightens up and/or starts to hurt.

There is more on this injury in the injury section of this book.

### **Don't feel guilty if you don't stretch before you run-walk**

A gentle walk for 5 minutes, followed by a very gradual transition from walking to run-walk has been the most effective warm up that I have found.

### **If you have individual stretches that work....DO THEM!**

I've met several people who have certain stretches that seem to help them. If you find a stretch that works for you, go ahead. Just be careful.

# Strengthening

*There are a few strengthening activities that can help your running. But I must tell you that overall, I don't believe that running is a strength activity. As noted in the "running form" chapter, running is done most effectively, in my opinion, when you use your momentum. I call running an "inertia activity." In other words, you get your body into motion with a few steps, then just maintain that momentum. Therefore, the strength you need for running is minimal. With these facts on the table, it won't surprise you that this chapter is quite short.*

Just look at the physiques of the faster runners. There is hardly any muscle development, and no bulk. Carrying around extra superstructure that doesn't help you move forward is extra work for the body—causing a slowdown later in a long run. In strength contests with other athletes that I have attended, runners tend to score at the bottom.

When I competed at the world-class level, I didn't know a single competitor who spent an hour doing weight work, on a regular basis—unless their high school or college track coach made them do it.

**Note:** these exercises are not meant to be prescriptions for medical problems. They are offered from one runner to another because thousands have reported benefit from them. If you have a back or other medical issue, make sure your doctor and other specialists give you permission to use these exercises.

## **Toe Squincher—for prevention of injuries of the foot and lower leg**

I believe that this exercise will help just about every person that runs and walks.

Whether barefooted or not, point your toes and contract the muscles of your foot until they cramp. It only takes a few seconds for this to happen. You can repeat this exercise 10-30 times a day, every day.

This is the best way I know to prevent a foot injury called plantar fascia—but it strengthens the areas all over the foot and ankle for better support. I've also heard from runners who believe it has helped to prevent Achilles tendon problems.

### **Postural muscle exercises**

By balancing the strength of muscles on the upper body, that support your posture, you'll tend to maintain positive upright posture while running, walking, or in other of life's activities. In the upright position that is natural for you, running is easier. You'll move forward more efficiently with less energy required for keeping your body balanced.

Good postural muscles will also allow for more efficient breathing. You'll be able to breathe deeply, which will reduce side pain, and enable you to maximize oxygen absorption.

There are two groups of muscles that need to be strengthened. On the front side, the abdominal group provides support and balance. When ab strength is balanced by back and neck muscles, you will resist fatigue in the shoulders, neck, and back.

### **Front muscles: the crunch**

Lie on your back on a cushioned carpet or floor pad with adequate cushioning for your back. Bend your knees. Now raise your head and upper back very slightly off the floor.

Go up an inch or two and down, but don't let the upper back hit the floor. As you move very slightly, don't let the stomach muscles relax; keep them working as you go up and down in this very narrow range of motion. It also helps, as you are doing this, to roll slightly to either side, continuously moving. This strengthens the whole range of muscle groups that support the front side of your torso.

### **For the back, shoulders and neck: arm running**

Holding a dumbbell in each hand while standing (not while running) go through a range of motion that you would use when running. Keep the weights close to your body as the hands swing from your waist up to your shoulders, and return.

Pick a weight that makes you feel, after a set of 10 repetitions, that you got a workout out of the muscles involved.

But, don't have so much weight that you have to struggle as you get your last 1-2 reps. Start with one set of 10, and increase to 3-5 sets, once or twice a week. This can be done on a running day, or on a rest day.

# Staying Motivated

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- Consistency is the most important part of conditioning and fitness.
- Motivation is the most important factor in being consistent.
- You can gain control over your motivation—every day. The choice is yours. You can take control over your attitude, or you can let yourself be swayed by outside factors that will leave you on a motivational roller coaster: fired up one day, and down the next. Getting motivated on a given day can sometimes be as simple as saying a few key words and taking a walk. But staying motivated requires a strategy or motivational training program. To understand the process, we must first look inside your head.

There are two components of the brain which we use to conduct

Our activities: The subconscious brain (I call it the “monkey brain”) and the conscious brain (in the frontal lobe). We allow the subconscious brain to conduct most of our habitual activities, daily. While in control, the subconscious brain will monitor stress and secrete anxiety and negative hormones when stress is too high. We don’t have to do away with stress to cause the negative hormones to go away.

By using some simple cognitive strategies the conscious brain will override the subconscious brain and allow you to gain control over your motivation . This stops the negative hormones and activates positive ones. By staying focused you can activate the executive control center in the frontal lobe: both the logical left side and the intuitive and creative right side which enrich your running experience.

Here are three mental training methods which can keep your brain action in the executive lobe—and away from the emotional roller coaster.

Note: for more information, see my book MENTAL TRAINING

## DRILL #1

### Rehearsing success

#### Getting out the door after a hard day

By rehearsing yourself through a motivation problem, you can shift into conscious brain activity, be more consistent and set the stage to improve. You must first focus on a goal that is do-able, and a rehearsal situation that is realistic and moves one small cognitive step at a time. Let's learn by doing:

1. State your desired outcome: To be walking and running from my house after a hard day.
2. Detail the challenge: Low blood sugar and fatigue, a stream of negative messages, need to get the evening meal ready to be cooked, overwhelming desire to feel relaxed.
3. Break up the challenge into a series of actions, which lead you to the next conscious thought...and action.
  - You're driving home at the end of the day, knowing that it is your exercise day but you have no energy.
  - This is stressful to your subconscious brain which stimulates anxiety hormones and then negative hormones stimulating negative feelings: "You're too tired", "Take the day off", "You don't have the energy to run-walk."
  - So you say to the left brain, "I'm not going to exercise. I'll put on some comfortable shoes and clothes, eat and drink, get food preparation going for dinner, and feel relaxed." • You're in your room, putting on comfortable clothes and shoes (they just happen to be used for run-walk).
  - You're drinking coffee (tea, diet cola, etc.) and eating a good tasting energy snack, as you get the food prepared to go into the oven.
  - Stepping outside, you check on the weather.
  - You're walking out to the edge of your block to see what the neighbors are doing.
  - As you cross the street, you're on your way.
  - The endorphins are kicking in, you feel good; you want to continue.
4. Rehearse the situation over and over, fine-tuning it so that it becomes integrated into the way you think and act.
5. Finish by mentally enjoying the good feelings experienced with the desired outcome. You have felt the good attitude, the vitality, the glow from a good run/walk, and you are truly relaxed. So, revisit these positive feelings at the end of each rehearsal.

## Getting out the door early in the morning

The second most common motivational problem that I'm asked about relates to the comfort of the bed when you wake up and know that it is time for exercise.

State your desired outcome: to be walking and running away from the house early in the morning.

Detail the challenge: a desire to lie in bed, no desire to exert yourself so early. The stress of the alarm clock, and having to think about what to do next when the brain isn't working very fast is challenging.

Break up the challenge into a series of actions, which lead you through the mental barriers, not one of which is challenging to the left-brain.

- The night before, lay out your running clothes and shoes near your coffee pot, so that you don't have to think.
- Set your alarm, and say to yourself over and over, "feet on the floor, alarm off, to the coffee pot." Or...."floor, alarm, coffee." As you repeat this, you visualize doing each action without thinking. By repeating it, you lull yourself to sleep. You have been programming yourself for taking action the next morning.
- The alarm goes off. You put the feet on the floor, shut the alarm off, and head to the coffee pot—all without thinking.
- You're putting on one piece of clothing at a time, sipping coffee, never thinking about exercise.
- With coffee cup in hand, you walk out the door to see what the weather is like.
- Sipping coffee, you walk to edge of your block or property to see what the neighbors are doing.
- Putting coffee down, you cross the street, and you have made the break!
- The endorphins are kicking in; "you feel good", you want to continue.

Rehearsals become patterns of behavior more easily if you don't think, but just move from one action to the next. The power of the rehearsal is that you have formatted your brain for a series of actions, so that you don't have to think as you move from one action to the next. As you repeat the pattern, revising it for real life, you become what you want to be.

***You are successful!***

# Dealing with the Weather

Neither rain, nor ice, nor heat, nor gloom  
nor night shall keep us from our run.

*Sometimes, on those snowy, rainy, brutally cold days, I yearn for the early days of running when we had an excuse for not braving the elements. Today, however, there are garments for each of the above, head to toe. Yes, technology has taken away most of our excuses for not exercising. But runners can be very creative. Every year I hear a few new excuses from runners who rise to the occasion and find some reason why they can't exercise. In reality, even if you don't have the clothing for hot or cold weather, you can run/walk indoors—on treadmills, in malls or stadiums, or at a gym.*

A few years ago, I ran a race in Fairbanks Alaska. I had to ask the members of the local running club what was the lowest temperature that anyone had endured. The winner had run a 10K in minus 66°F degree weather (not windchill; this was the real thing: bulb temperature). He said that it really didn't feel that cold. The fact is that clothing designers have responded to the needs of runners during extreme weather conditions, making it possible to run, fairly comfortably, in sub zero conditions. I will admit, however, that if it is minus 66, I can't run because I have to rearrange my running shoes next to a warm fire.

## Hot weather

I've heard rumors of an air-conditioned suit for the heat, but haven't seen it offered by the clothing manufacturers. I could have used this when I ran a marathon in Key West,

FL. when it was 95°F degrees for the last 20 miles of the race. After decades of running in hot weather areas, mostly in Florida and Georgia, with some time spent in Hawaii and the Philippines, I haven't seen much in clothing that lowers body

temperature. The best you can hope for is to minimize the rise, while you feel cooler, and a bit more comfortable.

When you exercise strenuously in high heat (above 70°F), or moderate heat (above 60°F) with high humidity (above

50%) you raise your core body temperature. Most beginning runners will see the internal temperature rise above 55°F.

This triggers a release of blood into the capillaries of your skin to help cool you down. But this diversion reduces the blood supply available to your exercising muscles, meaning that you will have less blood and less oxygen delivered to the power source that moves you forward—and less blood to move out the waste products from these work sites.

So the bad news is that in warm weather you are going to feel worse and run slower. If you build up the heat too quickly, stay out too long, or run too fast—for you—the result could be heat disease. Make sure that you read the section on this health problem at the end of this chapter.

The good news is that you can adapt to these conditions to some extent as you learn the best time of the day, clothing, and other tricks to keep you cool. But there are some other good options below, so read on.

### **Running through the summer heat Above all—slow down and walk more**

1. Run before the sun gets above the horizon. Get up early during warm weather, and you will avoid most of the dramatic stress from the sun. This is particularly a problem in humid areas. Early morning is usually the coolest time of the day, also. Without having to deal with the sun, most runners can gradually adapt to heat. At the very least, your runs will be more enjoyable. Note: be sure to take care of safety issues.
2. If you must run when the sun is up, pick a shady course. Shade provides a significant relief in areas of low humidity, and some relief in humid environments.
3. Evening and night running is usually cooler in areas with low humidity. In humid environments, there may not be much relief.
4. Have an indoor facility available. With treadmills, you can exercise in air conditioning. If a treadmill bores you, alternate segments of 5-10 minutes—one segment outdoor, and the next indoor.
5. Don't wear a hat! You lose most of your body heat through the top of your head. Covering the head will cause a quicker internal buildup of heat.
6. Wear light clothing, but not cotton. Many of the new, technical fibers (polypro, coolmax, drifit, etc.) will move moisture away from your skin, producing a cooling effect. Cotton soaks up the sweat, making the garment heavier and hotter.

7. Pour water over your head. Evaporation not only helps the cooling process—it makes you feel cooler. If you can bring along ice water with you, you will feel a lot cooler as you squirt some regularly over the top of your head.
8. Do your run-walk in installments. It is fine, on a hot day, to put in your 30 minutes by doing 10 in the morning, 10 at noon and 10 at night. The long run, however, should be done at one time.
9. Take a pool break, or a shower chill-down. During a run, it really helps to take a 4-8 minute dip in a pool or a shower. Some runners in hot areas run loops around their neighborhood, and let the hose run over the head each lap. The pool is especially helpful in soaking out excess body temperature. I have run in 97°F degree temperatures at our Florida retreat area, breaking up a 5 mile run into 3 x 1.7 mile run. Between each, I take a 2-3 minute “soak break” and get back out there. It was only at the end of each segment that I got warm again.
10. Sun Screen—be sure to protect yourself. Some products, however, produce a coating on the skin, slowing down the perspiration and causing an increase in body temperature buildup. If you are only in the sun for 10-30 minutes at a time, you may not need to put on sunscreen for cancer protection. Consult with a dermatologist for your specific needs—or find a product that doesn't block the pores.
11. Drink 6-8 oz. of a sports drink like Accelerade or water at least every 2 hours, or when thirsty throughout the day during hot weather.
12. Look at the clothing thermometer at the end of this section. Wear loose fitting garments that have some texture in the fabric. Texture will limit or prevent the perspiration from causing a clinging effect, sticking to the skin.
13. If your only option is going outside on a very hot day, you have my permission to re-arrange your running shoes—preferably in an air conditioned environment.

## Hot weather slowdown

### ***NOTE: As you slow down, adjust to more walking/less running***

As the temperature rises above 14C, your body starts to build up heat. I have found that it is best to slow down by 20 sec/km for every 2.5C temperature increase above 14C. With the slowdown you should be walking more and running less.

## Heat disease alert!

While it is unlikely that you will push yourself into heat disease, the longer you are exercising in hot (and/or humid) conditions, the more you increase the likelihood of this dangerous medical situation. That's why I recommend breaking up your exercise into short segments when it's hot, and you must run outdoors. Be sensitive to your reactions to the heat, and those of the runners around you. When one of the symptoms is present, this is normally not a major problem unless there is significant distress. But when several are experienced, take action because heat disease can lead to death. It's always better to be conservative: stop the workout and cool off.

### **Symptoms:**

- Intense heat build-up in the head
- General overheating of the body
- Significant headache
- Significant nausea
- General confusion and loss of concentration
- Loss of muscle control
- Excessive sweating and then cessation of sweating
- Clammy skin
- Excessively rapid breathing
- Muscle cramps
- Feeling faint

### **Risk factors:**

- Viral or bacterial infection
- Taking medication—especially cold medicines, diuretics, medicines for diarrhea, antihistamines, atropine, scopolamine, tranquilizers
- Dehydration (especially due to alcohol)
- Severe sunburn
- Overweight
- Lack of heat training
- Exercising more than one is used to
- Occurrence of heat disease in the past
- Several nights of extreme sleep deprivation
- Certain medical conditions including high cholesterol, high blood pressure, extreme stress, asthma, diabetes, epilepsy, drug use (including alcohol), cardiovascular disease, smoking, or a general lack of fitness.

### **Take action! Call the emergency number**

Use your best judgment, but in most cases anyone who exhibits two or more of the symptoms should get into a cool environment, and receive medical attention immediately.

An extremely effective cool off method is to soak towels, sheets, or clothing in cool or cold water, and wrap them around the individual. If ice is available, sprinkle some ice over the wet cloth.

### **Tip: Maintaining heat tolerance during the winter**

By putting on additional layers of clothing, so that you sweat within 3-4 minutes of your run-walk, you can keep much of your summer heat conditioning that took so much work to produce. Continue to run for a total of 5-12 minutes at an easy pace.

## Dealing with the cold

1. Expand your lunch hour if you want to run outdoors.  
Mid-day is usually the warmest time of the day, so you will probably have to plan to arrive at work early (pay bills, run errands, etc.). The mid-day sun can make your outdoor running much more comfortable—even when it is very cold.
2. If early morning is the only time you can run, bundle up. The “clothing thermometer” at the end of this section will help you to dress for the temperature and not over-dress.
3. Run into the wind at the start, particularly when you are running out and turning around. If you run with the wind at your back for the first half of the run, you’ll tend to sweat. When you turn into a cold wind, you’ll chill down dramatically.
4. Having a health club will give you an indoor venue, and other exercise. With treadmills, you can run away from the wind chill. I have worked with many runners who hate running on treadmills, but also hate running for more than 15 minutes in the cold. Their solution is to alternate segments of 7-15 minutes—one segment outdoor, and the next indoor. Count the transition as a walk break. Health clubs expand your exercise horizons offering a variety of alternative exercise.
5. One of your exercise days could be a Triathlon—your choice of three exercises. You can do exercises out of your home, or at a health club. See the sidebar on “winter triathlon” for more information.
6. Seek out a large indoor facility near your office or home.  
Some cities have pedestrian tunnels and allow runners and walkers at low walk traffic times.
7. Wear a hat! You lose most of your body heat through the top of your head. Covering the head will help you retain body heat and stay warm.
8. Cover your extremities from the wind chill you produce when you run and walk in the cold! Protect ears, and hands, nose and generally the front of the face. Make sure that you protect the feet with socks that are thick enough. And men, wear an extra pair of underwear.
9. Do your run-walk in installments. It is fine, on a really cold day, to put in your 30 minutes by doing 10 in the morning, 10 at noon and 10 at night.
10. Take a “warm up” break. Before you head out into the cold, walk and run in place, indoors. During a run, when you get really cold on outside, it really helps to take a 2-4 minute walk indoors. Some runners schedule their walk breaks to coincide with buildings that allow public walking.
11. Vasoline—be sure to protect yourself wherever there is exposed skin on very cold

days. One area, for example, is the skin around the eyes, not protected by a ski mask, etc.

12. When you are exercising during the winter, indoor or outdoor, you will be losing almost as much in sweat as in the warm months. You should still drink about 250 ml every 1-2 hours throughout the day.
13. Another reminder: Look at the clothing thermometer at the end of this section, and customize it for your situation.

### **Clothing thermometer**

After years of working with people in various climates, here are my recommendations for the appropriate clothing based upon the temperature. As always, however, wear what works best for you. The general rule is to choose your garments by function first. And remember that the most important layer for comfort is the one next to your skin. Garments made out of fabric labeled Polypro, coolmax, drifit, etc., hold enough body heat close to you in winter, while releasing extra heat. In summer and winter, they move moisture away from the skin—cooling you in hot weather, and avoiding a chill in the winter.

### **Temperature What to wear**

14°C or 60°F and above Tank top or singlet, and shorts

9 to 13°C or 50 to 59°F T-shirt and shorts

5 to 8°C or 40 to 49°F Long sleeve light weight shirt, shorts or tights (or nylon long pants) Mittens and gloves

0 to 4°C or 30 to 39°F Long sleeve medium weight shirt, and another T-shirt, tights and shorts, Socks or mittens or gloves, and a hat over the ears

-4 to -1°C or 20-29°F Medium weight long sleeve shirt, another T-shirt, tights and shorts, socks, mittens or gloves, and a hat over the ears

-8 to -3°C or 10-19°F Medium weight long sleeve shirt, and medium/heavy weight shirt, Tights and shorts, nylon wind suit, top and pants, socks, thick mittens, and a hat over the ears

-12 to -7°C or 0-9°F Two medium or heavyweight long sleeve tops, thick tights, Thick underwear (especially for men), Medium to heavy warm up, gloves and thick mittens, ski mask, a hat over the ears, and Vaseline covering any exposed skin.

-18 to -11°C or -15°F Two heavyweight long sleeve tops, tights and thick tights, thick underwear (and supporter for men), thick warm up (top and pants) mittens over gloves, thick ski mask, and a hat over ears, vasoline covering any exposed skin, thicker socks on your feet and other foot protection, as needed.

Minus 20° both C & F Add layers as needed

## **What not to wear**

1. A heavy coat in winter. If the layer is too thick, you'll heat up, sweat excessively, and cool too much when you take it off.
2. No shirt for men in summer. Fabric that holds some of the moisture will give you more of a cooling effect as you run and walk.
3. Too much sunscreen—it can interfere with sweating.
4. Socks that are too thick in summer. Your feet swell and the pressure from the socks can increase the chance of a black toenail and blisters.
5. Lime green shirt with bright pink polka dots (unless you have a lot of confidence and/or can run fast).

# What If You're Not Enjoying Your Running?

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## **Are you tired when you start your run, or a short distance into the run?**

This is often due to low blood sugar level. Eat an energy bar and a cup of coffee (or beverage of your choice) about an hour before your run-walk.

## **Are you doing your run-walk in the same place, day after day?**

If you are stuck running in the same place, break out! Go to a scenic or interesting area at least once a week. Some folks are more motivated running in the city, while others can't wait to run on trails. Whatever area motivates you to run, go there.

## **Are you exercising at a fairly hard level, more than 3 days a week?**

If you are tired or simply unmotivated, you may be hitting a temporary "burnout wall." Drop back to an every-other-day exercise routine until you feel the motivation come back.

Most runners in this position find that they respond better by only doing 10 minutes a session at first. After a week or two, 10 minutes is not enough.

## **Are you running with a group?**

The right group will keep you motivated. As you run, you share stories, jokes...your life. There is something very guttural about running together that encourages you to be yourself and share with others. You don't want to miss the fun of the group.

## **Are you running the same distance each day?**

If so, vary the distance. Have one long run a week, one short run and one medium run. Variety is the spice of running.

## **Are you running the same speed each day?**

You'll tend to get into a boring rut if every workout is the same. On your long run day, go very slow. On your short day, run faster in a few one-minute segments than you

normally run (don't sprint, just run faster than normal). There are several variations you can make on your other day. Look at the cadence drill mentioned in this book. Not only will this drill help you run more easily and faster—the 20 second cadence counts will break up a run and give you a purpose.

### **Do you have a goal?**

Look at a schedule of running events in your area, and select a race that you want to finish. If you have run this before, you can also target a time goal. As you write the race date on the calendar, you'll find more purpose to every run.

### **Have you just finished a long-term goal?**

When you have trained for a challenging event, over several months, it's normal to have a letdown. You can avoid this by selecting a series of motivational runs (social, scenic, festival races) during the 2 months after your goal has been completed.

Write them down on your calendar, or in your training journal at least a month before your first goal. This creates mental motivation that bridges from one event to the next.

### **Are you writing down your runs in a training journal?**

It's motivational to write down mileage, day after day. Often, after looking back over your log entries, you can find a series of reasons why you are not motivated: ran too much during a month, ran too fast, etc.

Once you get into the habit of "journaling", you'll be energized by noting your mileage success each day—and motivated to avoid writing a zero.

### **Are you giving yourself rewards every few runs?**

A smoothie after a long run, or a pancake breakfast after a group run are two examples of food rewards. Our psyche responds positively to a wide range of reinforcements: social, clothing, equipment, emotional, and spiritual.

Here are some examples of reinforcements for the spirit:

After a tough run—

"I had to dig down deep today, but overcame adversity. I feel good!"

After a great relaxing run—

"There's no better way to clear the stress than a run like this."

After your longest run all year—

"I can't believe that I ran so far!"

After finishing a run, when you didn't think you would—

"I feel so empowered; I can do anything."

After a run that was slower than you wanted—

"I am miles ahead of those on the couch."

# Trouble Shooting

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- Coming back after a layoff from running
- It hurts!
- No energy...
- Side Pain
- I feel great one day—but the next day...
- No motivation
- Cramps in my leg muscles
- Upset stomach or Diarrhea
- Headache
- Should I run when I have a cold?
- Street safety
- Dogs
- Heart Disease and Running

## **How do I start back when I've had time off?**

The longer you've been away from running, the slower you must return. I want to warn you now that you will reach a point when you feel totally back in shape—but you are not.

Stay with the plan below for your return, and when in doubt, be more conservative. Remember that you are in this for the long run!

### **Less than 2 weeks off**

You will feel like you are starting over again, but should come back quickly. Let's say that you were at week # 20, but had to take 10 days off. Start back at week #2 for the first week. If all is well, skip to week # 4 or 5 for the second week. If that works well,

gradually transition back to the schedule you were using before you had your layoff over the next 2-3 weeks.

### **14 days to 29 days off**

You will also feel like you are starting over again, and it will take longer to get it all back: within about 5-6 weeks you should be back to normal. Use the schedule of your choice (from week # 1) for two weeks. If there are no aches, pains or lingering fatigue, then use the schedule, but skip every other week. After the 5th week, transition back into what you were doing before the layoff.

### **One month or more off**

If you have not run for a month or more, start over again, like a beginner. Use one of the three schedules in this book following it exactly (from week # 1) for the first few weeks. After 2-3 weeks, the safest plan is to continue with the schedule.

But if you're having no aches and pains, and no lingering fatigue, you could increase more rapidly by skipping one week out of three. After 2 months of no problems, you could skip every other week if everything is still feeling great.

### **It hurts!**

#### ***Is it just a passing ache, or a real injury?***

Most of the aches and pains you feel when running will go away within a minute or two. If the pain comes on when running, just walk for an additional 2 minutes, jog a few strides, and walk another 2 minutes.

If the pain comes back after doing this 4 or 5 times, stop running and walk. If the pain goes away when you walk, just walk for the rest of the workout.

### **Walking pain**

When the pain stays around when walking, try a very short stride. Walk for a 30-60 seconds. If it still hurts when walking, try sitting down, and massaging the area that hurts if you can. Sit for 2-4 minutes. When you try again to walk, and it still hurts, call it a day; your workout is over.

#### ***It's an injury if...you have any of the following:***

There's inflammation—swelling in the area.

There's loss of function—the foot, knee, etc. doesn't work correctly.

There's pain—it hurts and keeps hurting or gets worse.

### **Treatment suggestions:**

1. See a doctor who has treated other runners very successfully and wants to get you back on the road or trail.
2. Take at least 2-5 days off from any activity that could irritate it to get the healing started, more if needed.

3. If the area is next to the skin (tendon, foot, etc.), rub a chunk of ice on the area(s)—constantly rubbing for 15 minutes until the area gets numb. Continue to do this for a week after you feel no symptoms. Ice bags and gel ice do no good at all in most cases.
4. If the problem is inside a joint or muscle, call your doctor and ask if you can use prescription strength anti-inflammatory medication. Don't take any medication without a doctor's advice—and follow that advice.
5. If you have a muscle injury, see a veteran sports massage therapist. Try to find one who has a lot of successful experience treating the area where you are injured. The magic fingers and hands can often work wonders.

This is advice from one runner to another. For more info on injuries, treatment, etc. see the “injury free” chapter in this book, and Galloway's Book On Running (second edition).

### No energy today

There will be a number of days each year when you will not feel like exercising. On most of these, you can turn it around and feel great. Occasionally, you will not be able to do this because of an infection, lingering fatigue, or other physical problems. Here's a list of things that can give you energy. If these actions don't lead you to a run, then read the nutrition sections—particularly the blood sugar chapter in this book—or in Galloway's Book on Running.

1. Eat an energy bar, with water or caffeinated beverage, about an hour before the run.
2. Instead of #1, half an hour before exercising, you could drink 100-200 calories of a sports drink that has a mix of 80% simple carbohydrate and 20% protein. The product Accelerade has this already put together.
3. Just walk for 5 minutes away from your house, office, etc., and the energy often kicks in. Forward movement gets the attitude moving, too.
4. One of the prime reasons for no energy is that you didn't re-load within 30 minutes after your last exercise session: 200-300 calories of a mix that is 80% simple carbohydrate and 20% protein (Endurox R4 is the product that has this formulated).
5. Low carb diets will result in low energy to get motivated before a workout, and often no energy to finish the workout.
6. In most cases, it is fine to keep going even if you aren't energetic. But if you sense an infection, see a doctor. If the low energy stays around for several days, see a nutritionist that knows about the special needs of exercisers and/or get some blood work done. This may be due to inadequate iron, B vitamins, energy stores, etc.

**Note:** if you have any problems with caffeine, don't consume any products containing it. As always, if you sense any health problem, see a doctor.

## Side pain

This is very common, and usually has a simple fix.

Normally, it is not anything to worry about...it just hurts.

This condition is due to 1) the lack of deep breathing, and 2) going a little too fast from the beginning of the run. You can correct #2 easily by walking more at the beginning, and slowing down your running pace.

Deep breathing from the beginning of a run can prevent side pain. This way of inhaling air is performed by diverting the air you breathe into your lower lungs. Also called “belly breathing,” this is how we breathe when asleep, and it provides maximum opportunity for oxygen absorption. If you don’t deep breathe when you run, and you are not getting the oxygen you need, the side pain will tell you. By slowing down, walking, and breathing deeply for a while, the pain may go away. But sometimes it does not. Most runners just continue to run and walk with the side pain. In 50 years of running and helping others run, I’ve not seen any lasting negative effect from those who run with a side pain.

**Tip:** Some runners have found that side pain goes away if they tightly grasp a rock in the hand that is on the side of the pain. Squeeze it for 15 seconds or so. Keep squeezing 3-5 times.

You don’t have to take in a maximum breath to perform this technique. Simply breathe a normal breath, but send it to the lower lungs. You know that you have done this if your stomach goes up and down as you inhale and exhale. If your chest goes up and down, you are breathing shallowly.

**Note:** never breathe in and out rapidly. This can lead to hyperventilation, dizziness, and fainting.

## I feel great one day...and not the next

If you can solve this problem, you could become a very wealthy person. There are a few common reasons for this, but there will always be “those days” when the body doesn’t seem to work right, or the gravity seems heavier than normal—and you cannot find a reason.

1. Pushing Through. In most cases, this is a one-day occurrence. Most runners just put more walking into the mix, and get through it. Before pushing, however, make sure that you don’t have a medical reason why you feel bad.
2. Heat and/or Humidity will make you feel worse. You will often feel great when the temperature is below 60°F and miserable when 75°F or above.
3. Low blood sugar can make any run a bad run. You may feel good at the start and suddenly feel like you have no energy. Every step seems to take a major effort. Read the chapter in this book about this topic.
4. Low motivation. Use the rehearsal techniques in the “staying motivated” chapter to

get you out the door on a bad day. These have helped numerous runners turn their minds around—even in the middle of a run.

5. Infection can leave you feeling lethargic, achy, and unable to run at the same pace that was easy a few days earlier. Check the normal signs (fever, chills, swollen lymph glands, etc.) and at least call your doctor if you suspect something.
6. Medication and alcohol, even when taken the day before, can leave a hangover that dampens a workout.
7. A slower start can make the difference between a good day and a bad day. When your body is on the edge of fatigue or other stress, it only takes a few seconds too fast per mile, walking and/or running, to push into discomfort or worse.

### **Cramps in the muscles**

At some point, most people who run experience cramps.

These muscle contractions usually occur in the feet or the calf muscles, and may come during a run or walk, or they may hit at random. Most commonly, they will occur at night, or when you are sitting around at your desk or watching TV in the afternoon or evening.

Cramps vary in severity. Most are mild, but some can grab so hard that they shut down the muscles and hurt when they seize up. Massage, and a short and gentle movement of the muscle can help to bring most of the cramps around.

Odds are that stretching will make the cramp worse, or tear the muscle fibers.

Most cramps are due to overuse—doing more than in the recent past, or continuing to put yourself at your limit, especially in warm weather. Look at the pace and distance of your runs and walks in your training journal to see if you have been running too far, or too fast, or both.

- Continuous running increases cramping. Taking walk breaks more often can reduce or eliminate cramps.  
Several runners who used to cramp when they ran a minute and walked a minute, stopped cramping with a ratio of run 30 seconds and walk 30-60 seconds.
- During hot weather, a good electrolyte beverage can help to replace the salts that your body loses in sweating. A drink like Accelerade, for example, can help to top off these minerals by drinking 6-8 oz. every 1-2 hours.
- On very long hikes, walks or runs, however, the continuous sweating, especially when drinking a lot of fluid, can push your sodium levels too low and produce muscle cramping. If this happens regularly, a buffered salt tablet has helped greatly: Succeed.
- Many medications, especially those designed to lower cholesterol, have as one of their known side effects muscle cramps. Runners who use medications and cramp should ask their doctor if there are alternatives.

## Here are several ways of dealing with cramps:

1. Take a longer and more gentle warmup.
2. Shorten your run segment.
3. Slow down your walk, and walk more.
4. Shorten your distance on a hot/humid day.
5. Break your run up into two segments.
6. Look at any other exercise that could be causing the cramps.
7. Take a buffered salt tablet at the beginning of your exercise.

**Note:** if you have high blood pressure, ask your doctor before taking any salt product.

## Upset stomach or diarrhea

Sooner or later, virtually every runner has at least one episode with nausea or diarrhea. It comes from the buildup of total stress that you accumulate. Most commonly, it is the stress of running on that day due to the causes listed below.

But stress is the result of many unique conditions within the individual. Your body triggers the nausea/diarrhea to get you to reduce the exercise, which will reduce the stress.

Here are the common causes:

1. Running too fast or too far is the most common cause.  
Runners are confused about this because the pace doesn't feel too fast in the beginning. Each person has a level of fatigue that triggers these conditions. Slowing down and taking more walk breaks will help you manage the problem.
2. Eating too much or too soon before the run. Your system has to work hard running, and works hard to digest food. Doing both at the same time raises stress and results in nausea, etc. Having food in your stomach, in the process of being digested, is an extra stress and a likely target for elimination.
3. Eating a high fat or high protein diet. Even one meal that has over 50% of the calories in fat or protein can lead to N/D hours later.
4. Eating too much the afternoon or evening of the day before. A big evening meal will still be in the gut the next morning, being digested. When you bounce up and down on a run, which you will, you add stress to the system and results in nausea/diarrhea (N/D).
5. Heat and humidity are a major cause of these problems.

Some people don't adapt to heat well and experience N/D with minimal buildup of temperature or humidity. But in hot conditions, everyone has a core body temperature increase that will result in significant stress to the system—often causing nausea, and sometimes diarrhea. By slowing down, taking more walk breaks, and pouring water over your head, you can manage this better.

6. Drinking too much water before a run. If you have too much water in your stomach, and you are bouncing around, you put stress on the digestive system. Reduce your intake to the bare minimum. Most runners don't need to drink any fluid before a run that is 60 minutes or less.
7. Drinking too much of a sugar/electrolyte drink. Water is the easiest substance for the body to process. The addition of sugar and/or electrolyte minerals, as in a sports drink, makes the substance harder to digest. During a run (especially on a hot day) it is best to drink only water. Cold water is best.
8. Drinking too much fluid too soon after a run. Even if you are very thirsty, don't gulp down large quantities of any fluid. Try to drink no more than 6-8 oz., every 20 minutes or so. If you are particularly prone to this N/D, just take 2-4 sips, every 5 minutes or so. When the body is very stressed and tired, it's not a good idea to consume a sugar drink. The extra stress of digesting the sugar can lead to problems.
9. Don't let running be stressful to you. Some runners get too obsessed about getting their run in or running at a specific pace. This adds stress to your life. Relax and let your run diffuse some of the other tensions in your life.

## Headache

There are several reasons why runners get headaches on runs. While uncommon, they happen to the average runner about 1-5 times a year. The extra stress that running puts on the body can trigger a headache on a tough day, even considering the relaxation that comes from the run. Many runners find that a dose of an over-the-counter headache medication takes care of the problem. As always, consult with your doctor about use of medication. Here are the causes/solutions.

**Dehydration**—if you run in the morning, make sure that you hydrate well the day before. Avoid alcohol if you run in the mornings and have headaches. Also watch the salt in your dinner meal the night before. A good sports drink like Accelerade, taken throughout the day the day before, will help to keep your fluid levels and your electrolytes “topped off.” If you run in the afternoon, follow the same advice leading up to your run, on the day of the run.

**Medications can often produce dehydration**—There are some medications that make runners more prone to headaches. Check with your doctor.

**Too hot for you**—run at a cooler time of the day (usually in the morning before the sun gets above the horizon). When on a hot run, pour water over your head.

**Running a little too fast**—start all runs more slowly; walk more during the first half of the run

**Running further than you have run in the recent past**—monitor your mileage and don't increase more than about 15% further than you have run on any single run in the past week.

**Low blood sugar level**—be sure that you boost your BLS with a snack, about 30-60 minutes before you run. If you are used to having it, caffeine in a beverage can sometimes help this situation also.

**If prone to migraines**—generally avoid caffeine, and try your best to avoid dehydration. Talk to your doctor about other possibilities.

**Watch your neck and lower back**—If you have a slight forward lean as you run, you can put pressure on the spine—particularly in the neck and lower back. Read the form chapter in this book and run upright.

## **Should I run when I have a cold?**

There are so many individual health issues with a cold that you must talk with a doctor before you exercise when you have an infection.

**Lung infection**—don't run! A virus in the lungs can move into the heart and kill you. Lung infections are usually indicated by coughing.

**Common Cold?** There are many infections that initially seem to be a normal cold, but are not. At least call your doctor's office to get clearance before running. Be sure to explain how much you are running, and what, if any medication you are taking.

**Throat infection and above**—most runners will be given the OK, but check with the doctor.

## **Street safety**

Each year several runners are hit by cars when running. Most of these are preventable.

Here are the primary reasons and what you can do about them.

### **1.** The driver is intoxicated or preoccupied by cellphone, etc.

Always be on guard—even when running on the sidewalk or pedestrian trail. Many of the fatal crashes occurred when the driver lost control of the car, and came up behind the runner on the

wrong side of the road. I know it is wonderful to be on “cruise control” in your right brain, but you can avoid a life threatening situation if you will just keep looking around, and anticipate.

### **2.** The runner dashes across an intersection against the traffic light.

When running or walking with another person, don't try to follow blindly across an intersection. Runners who quickly sprint across the street without looking are often surprised by cars coming from unexpected directions. The best rule is the one that you heard as a child: when you get to an intersection, stop, see what the traffic situation is. Look both ways, and look both ways again (and again) before crossing. Have an option to bail out of the crossing if a car surprises you from any direction.

### **3.** Sometimes, runners wander out into the street as they talk and run.

One of the very positive aspects of running becomes a negative one, in this case. Yes, chat and enjoy time with your friends. But every runner in a group needs to be responsible for his or her own safety, footing, etc. The biggest mistake I see is that the runners at the back of a group assume that they don't have to be concerned about traffic at all. This lack of concern is a very risky situation.

- In general, be ready to save yourself from a variety of traffic problems by following the rules below and any other that apply to specific situations. Even though the rules below seem obvious, many runners get hit by cars each year by ignoring them.
- Be constantly aware of vehicular traffic at all times.
- Assume that all drivers are drunk or crazy or both. When you see a strange movement by a car, be ready to get out of the way.
- Mentally practice running for safety. Get into the practice of thinking ahead at all times with a plan for that current stretch of road.
- Run as far off the road as you can. If possible, run on a sidewalk or pedestrian trail.
- Run facing traffic. A high percentage of traffic deaths come from those who run with the flow of traffic, and do not see the threat from behind.
- Wear reflective gear at night. I've heard the accounts and this apparel has saved lives.
- Take control over your safety you are the only one on the road who will usually save yourself.

## Dogs

When you enter a dog's territory, you may be in for a confrontation.

Here are my suggestions for dealing with your "dog days":

1. There are several good devices that will help deter dogs: an old fashioned stick, rocks, some electronic signal devices, and pepper spray. If you are in a new area, or an area of known dogs, I recommend that you have one of these at all times.
2. At the first sign of a dog ahead, or barking, try to figure out where the dog is located, whether the dog is a real threat, and what territory the dog is guarding.
3. The best option is to run a different route.
4. If you really want or need to run past the dog, pick up a rock if you don't have another anti-dog device.
5. Watch the tail. If the tail does not wag, beware.
6. As you approach the dog, it is natural for the dog to bark and head toward you. Raise your rock as if you will throw it at the dog. In my experience, the dog withdraws about 90% of the time. You may need to do this several times before getting through the dog's territory. Keep your arms up.

7. In a few cases, you will need to throw the rock, and sometimes another if the dog keeps coming.
8. In less than 1% of the hundreds of dog confrontations I've had, there is something wrong with the dog, and it continues to move toward you. Usually the hair will be up on the dog's back. Try to find a barrier to get behind, yell loudly in hopes that the owner or someone will help you. If a car comes by, try to flag down the driver, and either stay behind the car as you get out of the dog's territory, or get in the car for protection if that is appropriate.
9. Develop your own voice. Some use a deep commanding voice, some use a high pitched voice. Whichever you use, exude confidence and command.

# Being a Good Coach

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*One of the very best ways to consolidate the items you've learned from running is to help someone get started. Not only will you realize how much you have learned from running, you'll find yourself learning the principles of training and running enjoyment better as you explain them to a novice. But the best part of this experience is the inner satisfaction.*

You're not only helping people, you're introducing them to an activity that can improve the quality of their lives. In most cases, the novice runners will thank you, periodically, for the rest of your life.

## **Get them a good textbook—my GETTING STARTED book.**

Go over a chapter at a time, starting at the beginning. Highlight the key passages in the book for him or her. You don't have to do this on every chapter, but it really helps to get each novice headed in the right direction.

## **Make each session enjoyable—especially during the first month**

If your coachee is huffing and puffing, slow down and walk more from the beginning of every run. If there is continuing struggle, then stop for that day.

When you suspect even the possibility of low blood sugar, share an energy bar and coffee, tea, diet drink, etc. about 30-45 minutes before the start. Have a reward after each session—especially a snack to reload composed of 80% carbohydrate and 20% protein. On some special occasions, however, it's OK to have a reward snack that may be a little more decadent than usual.

### **Find interesting areas where you can run—scenic areas, smooth trails**

Convenient running routes near work or home are best for busy people, most of the time. But once a week, an excursion to an interesting area can be very rewarding. It's great to have variety, and you should give your coachee some choice.

### **On each run, have a joke, a juicy story and a controversial issue**

This will break the ice, inject some humor, and help to make this a positive bonding experience. With beginners who are having a hard time getting into it, the little humorous items are often appreciated as much as the shoes and clothing.

### **Don't push too hard, but encourage**

One of the most difficult decisions in coaching is whether to push or back off—whether to use a pat on the back or a kick in the butt. In general, it is important that the person get out there and exercise regularly. When motivation is down, just shoot for a minimal amount, every other day.

Realize, however, that to really get hooked, the new runner must develop the desire from within.

### **Rewards work!**

After a certain number of weeks, or after reaching a certain level of fitness, surprise with a reward. It doesn't have to be something expensive or exotic. The reward allows the new runner to focus on his or her progress, and feel the satisfaction of steady work paying off.

### **When your coachee is ready, find a fun race to attend**

Races are such positive experiences for new runners when they have a good leader to coach them through the experience calm the anxieties and share the celebration. The new runner will almost always realize that he or she is like most of the runners in the race.

Just having a race date on a calendar will provide the beginner with an identity that will increase motivation.

### **Tell him or her about your mistakes**

When you open up to your new runner with a personal story, the lessons become more powerful.

### **Don't over-sell running**

The benefits are so powerful that almost everyone who stays with it for 6 months will continue. If your coachee is falling asleep during your one hour speech on the benefits of running (and walking), you know that you've stepped over the line. The experience is more powerful than the preaching—and both are part of the process.

## **Your greatest reward will be an independent runner**

Take it as a real compliment that your coachee will need less and less of your guidance. This means that you were an excellent coach, and that he or she can find a new person and enrich another life.

## **How many years can a runner expect to improve?**

Most runners who stay focused continue to improve their running for at least 10 years. A few runners get caught up in running faster, which is the most frustrating part of running.

Even in this area which is influenced by many variables outside the control of the individual, most runners can expect to improve times for about 5 years. Those who stay really focused can keep improving.

If you do get caught up in time improvement, I suggest that you find several areas of running enjoyment that can continue to enrich your life. You can select events in every state, each continent, every country in Europe, etc.

Have several reunions with your growing number of running friends, 2-4 times a year. Have a family challenge and meet in a city where most of the family wants to visit.

The best form of running improvement comes from inside. My faster times are long gone, but I enjoy my running now more than ever. Practically every day I feel better, work better, think better because I run. It doesn't get any better!

## **Special Report: Heart Disease and Running**

Running tends to have a protective effect from cardiovascular disease. But more runners die of heart disease than any other cause, and are susceptible to the same risk factors as sedentary people. I know of a number of runners who have suffered heart attacks and strokes who probably could have prevented them if they had taken a few simple tests.

Your heart is the most important organ in your body. This short section is offered as a guide to help you take charge over your heart health, the most important organ for longevity, and quality of life. As always, you need to get advice about your individual situation from a cardiologist who knows you and specializes in this area.

### ***Risk Factors—get checked if you have two of these—or one that is serious***

- Family History
- Poor lifestyle habits earlier in life
- High fat/high cholesterol diet
- Have smoked—or still smoke
- Obese or severely overweight
- High blood pressure/High cholesterol

## Tests

- Stress Test—heart is monitored during a run that gradually increases in difficulty.
- C reactive Protein—has been an indicator of increased risk.
- Heart scan—an electronic scan of the heart which shows calcification, and possible narrowing of arteries.
- Radioactive dye test—very effective in locating specific blockages. Talk to your doctor about this.
- Carotid ultrasound test—helps to prevent stroke.
- Ankle-brachial test—plaque buildup in arteries throughout the body.

None of these are fool proof. But by working with your cardiologist, you can increase your chance of living until the muscles just won't propel you further down the road—past the age of 100.