

Dean's List: Tips on Running from

50 / 50

MARATHON TIPS

Race Day Tips for Your First Marathon

Arrive early. Get to the race an hour beforehand to allow time to park, make a pit stop, and get to the starting line without feeling rushed.

Don't experiment. Don't do anything on race day that you haven't done on your long runs, whether it's wearing different shoes or eating a different breakfast beforehand.

Layer your clothing. It is often much colder at the race start than it is once you get moving. Wear layers of clothing that you don't mind parting ways with along the course. A disposable painter's jacket is inexpensive and recyclable.

Pace yourself. Before the race, choose a pace that you're confident you can maintain and stick to it no matter how good you feel.

Pre-Marathon Don'ts

Here are five things you should try to avoid doing on the morning of a marathon or other long running event:

1. Don't spend too much time on your feet. Standing around will make your legs feel stiff and heavy in the first few miles.
2. Don't over-hydrate. There's little to be gained from guzzling excessive volumes of fluid during the last hour before a marathon. Doing so will only cause you to make time-consuming pit stops during your run.
3. Don't sleep in. It takes at least two hours for the body to achieve an internal state that is conducive to optimal running performance after waking up.
4. Don't skip breakfast. It's important that you top off your body's carbohydrate fuel stores following the overnight fast. Even if pre-race nerves make food unappealing, at least have something small and easy to consume, like a banana or a can of Ensure.
5. Don't forget to warm - up, especially if it's cold. Your body's systems work better when they are warm. Do a little light jogging and stretching to get the blood flowing and help bring your core body temperature up.

A Marathon Fueling Tip

Protein matters. The addition of protein in your fuel during a marathon has been shown to extend endurance, speed muscle recovery, and enhance rehydration.

The ideal ratio of carbs to protein seems to be in the 4:1 range. Several sports beverages now include protein along with carbohydrate, which is a good thing, because they're easier to ingest than solid foods, especially while running. Look for those products that have a 4:1 ratio of carbs to protein.

Pack Your Snacks

A good way to ensure that you have wholesome food available to eat when hunger strikes you during your travels is to pack and carry your own healthy snacks. Here are a few of my favorites:

- Energy bars
- Dried fruit
- Trail mix
- Salmon jerky
- Hard fruit (apples, pears)

Aid Station Etiquette

Without the support provided by the volunteers who manage fluid stations and perform other essential duties, running events wouldn't happen. Make their jobs easier and more enjoyable by observing these points of etiquette:

- Call out what you're looking for as you approach the aid station. For example, "Water!" or "Sports drink!"
- Make eye contact with your chosen volunteer and extend your arm toward the cup being offered several paces before you reach him or her.
- Thank the volunteer who hands you your drink.
- Try not to stop or slow down in the flow of runners. Instead, pull off to the side to drink, if necessary.

Marathon Fuel

You don't need solid food to fuel your way through a standard marathon. Sports drinks such as Accelerade, energy gels, and other "ergogenic aids" including Clif Shot Blocks can provide all the energy you need in the most convenient and fast-acting form available.

Hydration Guidelines for Runners

Consuming fluid during your workouts and races will help you run stronger and may help you avoid overheating.

Here are a few simple guidelines to follow:

- Consume fluid during all runs lasting an hour or more, and during runs of any duration in very hot weather (85° or higher). This will improve your performance by limiting the amount of dehydration you experience during your workouts.
- Carry your fluid in a squeeze bottle, such as those used by cyclists, and keep the bottle in a fluid belt, or use a hydration pack with an internal bladder for storing liquid (such as a CamelBak). Both of these items can be purchased at most running specialty shops or ordered online. My personal favorite is The North Face Gulper.
- Know how much fluid you will need for a long run before you start and create a plan to ensure you have access to enough. If you will need more fluid than your hydration system will hold, put a \$5 bill in your pocket and buy a bottle of liquid from a convenience store midway through your route, or return home for a refill.
- For the best results, use a sports drink instead of water. Sports drinks hydrate better than water because they replace sodium and other minerals that are lost in sweat, whereas water does not.
- Drink small amounts frequently: roughly 4-8 ounces every 10-15 minutes. Your stomach empties faster when it's fuller. Drinking frequently helps keep your stomach consistently fuller.
- The exact amount of fluid you need depends on your weight, your running pace, and how long you run. So try to listen to your body and tune in to your individual hydration needs.
- Don't force yourself to drink more than you're comfortable consuming. This can lead to gastrointestinal stress or, in extreme cases, a dangerous dilution of the blood known as hyponatremia, or water intoxication.
- Drink one or two glasses of water after completing your run, as well. Even when you drink appropriately during a run, you may be somewhat dehydrated by the time you finish it without even knowing it.

How to Avoid Sickness During a Race

- Eat your pre-race meal at least two hours beforehand.
- Avoid milk and lactose, as well as highly fibrous foods, for at least 24 hours beforehand.
- Consume easily digested foods such as instant oatmeal, bananas, and energy bars in your pre-race meal. If you eat your pre-race meal two hours before the race, it should contain no more than 500 calories.
- Don't drink too much fluid during the run. Let your thirst guide your drinking rate. Drink only water or a sports drink such as Accelerade.
- Train properly for the race so your body is accustomed to the level of exertion that will be called for. For example, complete at least one training run of 20 miles or more before running a full marathon.

Quick Take: Raw ginger is a wonderful digestive aid for minor upset stomach and nausea. Try pickled ginger and ginger chews for a gentler response, or use freshly cut ginger root if you're seeking stronger relief. Use it either before you run to prevent problems or during a run, at the first sign of trouble.

Reaching Higher

“How fast can I run a marathon? What should my next marathon time goal be?”

These are questions that many runners ask themselves after they complete their first marathon and decide they wish to improve their time in a subsequent marathon. Of course, the most basic way to set a new goal is to simply aim to beat your first marathon time by one second or more. But many runners feel that, with accumulated experience and better training, they can aim higher than that. But how high? Boston?

Another way to set a new marathon time goal is to base it on your performance in a shorter race. As you train for your next marathon, enter one or more 5K, 10K, or half-marathon tune-up races. Your finishing times in such races can give you a sense you how fast you will be able to run your next marathon. How? A number of running experts have created race performance equivalence tables and calculators that show how runners of any given talent and training level how can expect to perform at other race distances based on a recent performance at one distance.

One of the better race performance equivalence calculators can be found at www.runnersworld.com. Just enter your time for a recent shorter race and see what your “equivalent” marathon time would be. This is no guarantee, but it could be one helpful guideline to use in the goal-setting process.

Negative Splitting

My split time for the first half of the New York City Marathon was 1:30:31; for the second half it was 1:29:59—a so-called negative split. The term “negative splitting” refers to running the second half of a race faster than the first. Generally, you will run the best possible time in a marathon if you hold enough back in the first half so that you can run the second half faster—if only by a few seconds. It takes a little practice, and a measure of discipline. It’s tempting to go out fast in the first part of a race, when you’re feeling strong, but if instead you concentrate on holding back a little and conserving energy, often you can turn in your best performances ever.

Five Great Boston Marathon Qualifying Events

Choosing the right marathon event will improve your chances of achieving a Boston Marathon qualifying time. The best qualifying events feature flat courses, cool, dry weather (most years), and large fields with plenty of other runners who run as fast as you hope to run, or faster. Here are five marathons that meet these criteria:

1. Bay State Marathon, Lowell, MA (October)
2. California International Marathon, Sacramento, CA (December)
3. Chicago Marathon, Chicago, IL (November)
4. Grandma’s Marathon, Duluth, MN (June)
5. Mercedes Marathon, Birmingham, AL (February)

For a complete list of Boston Marathon qualifying races, go to www.baa.org.

Large Versus Small Marathons

With 42,000 runners, the Chicago Marathon was one of the largest marathons in the Endurance 50. This massive scale has its advantages and disadvantages.

Small marathons typically have a different set of advantages and disadvantages.

Here's a comparison:

	Large Marathons (10,000+ Runners)	Small Marathons (1-5,000 Runners)
Advantages	Usually very well organized	Fewer hassles (parking, porta-potty lines, etc.)
	Lots of spectator support	More personal atmosphere
	Exciting atmosphere	Often held in beautiful non-urban locations
	Mostly in major cities (i.e. cool tourist destinations)	Easy to start near the front
Disadvantages	Crowd related hassles (picking up race number, parking, etc.)	Sometimes not as well organized
	Difficult to start near the front	Not as much spectator support
	Slow early miles due to tightly packed crowd	Fewer perks (free product samples, race photography, etc.)

Tough Guys (and Gals)

Some runners are especially known for being mentally tough. Three-time New York City Marathon winner Alberto Salazar was legendary for being able to push himself harder than any of his rivals. Current women's marathon world record holder Paula Radcliffe of Great Britain has a similar reputation. What makes such runners mentally tougher than the rest? Sports psychologists believe there are many ingredients, including genes and impactful childhood experiences.

I believe that mental toughness also comes from your conscious willingness to push aside pain. You can't change your genes or your childhood experiences, but you can control your ability to tolerate increasing discomfort and pain when running hard. Building mental toughness really comes down to saying "yes" with your heart when your body says "no," and getting the job done, despite the pain.

The 10 Percent Rule

Trying to take big steps in the process of building your training for a marathon or other event is never a good idea. Increasing your running mileage too quickly may result in an injury such as a pulled muscle or shin splints. To avoid these problems, obey the 10-percent rule: Increase your running mileage by no more than 10 percent per week. So, if you ran 20 miles last week, run no more than 22 miles this week.

The Three-Day Countdown

Motivation and smart training alone do not guarantee successful race performances. What you do in the final three days before a race can make the difference between achieving your goal and falling short. The following table provides some suggested preparations for the final three days before a competition.

Countdown	Sleep	Running	Nutrition
72 hours in advance	Sleep & wake at same hours as race day. Get at least your normal night's sleep if not slightly more. Adjust your bedtime to accommodate this extra sleep, not your wake time.	45 minutes to 1 hour, low-impact, easy run.	Consume at minimum 1 gram of protein & 2 grams of carbs per pound of body weight.
48 hours in advance	Try to go to sleep at least 1/2 hour earlier than the night prior.	30 to 45 minutes, low-impact, easy run.	Reduce fiber intake, both soluble & insoluble. Reduce or eliminate dairy intake.
24 hours in advance	Try to go to sleep at least 1 hour earlier than the night prior.	2-mile walk/jog	Eat only low-fiber foods. No dairy.

Natural Splendor

If you're looking to run a marathon in a beautiful natural environment, you can't go wrong with these five:

1. Valley of Fire Marathon, Overton, Nevada
2. Deadwood Michelson Trail Marathon, Deadwood, South Dakota
3. St. George Marathon, St. George, Utah
4. Triple Lakes Trail Marathon, Greensboro, North Carolina
5. Breakers Marathon, Middleton, Rhode Island

Tips to Prevent Jet Leg

Flying across time zones can throw your internal body clock out of kilter and cause you to feel extremely fatigued for a couple days to a week. It's not only an unpleasant experience, but it also hampers your ability to run.

Use these tips to limit its effects:

- If you want to rest, try taking melatonin before you fly. Melatonin is a natural hormone that regulates the body's circadian rhythms and is available over the counter at most pharmacies.
- Alternatively, try a homeopathic remedy called No Jet Leg. The main active ingredient is an herbal extract called Arnica. It's worked very well for me.
- Avoid drinking alcohol or caffeinated beverages during the flight. Drink plenty of water.
- If you can sleep on planes, do. Forcing yourself to stay awake with the idea that this will make it easier to sleep more soundly later on never seems to work. Sleep at every opportunity.
- When you're awake, get up and walk about the aircraft frequently.
- Change your watch to the local time zone of your destination on takeoff.

Tips for Traveling Abroad to Marathons

Marathon tourism is a huge phenomenon. Each year thousands of runners cross borders to combine marathon participation with foreign adventure. Getting the most out of marathon tourism requires a little advance planning. Here are some tips:

- Thoroughly research the marathon you're considering signing up for before you commit to it. The best way to do this is by logging onto MarathonGuide.com, where you can read reviews of virtually every marathon on the planet posted by past participants. These reviews will help you pick a marathon that provides a good experience for most and will help you make specific preparations to ensure you avoid problems that past participants have encountered.
- Make all of your necessary arrangements—including flight and hotel bookings, visa acquisition, and event registration—as far in advance as you can. This will spare you a lot of energy-sapping stress in the final weeks and days before you depart.
- If you're traveling with family, try to involve them in your race in certain ways, so they won't feel it's taking away from their vacation. Buy each of them something at the race expo, have your kids make signs that read "Go, dad/mom!", and create a fun and easy spectator plan for the family. Make them feel like an important part of the team, as they rightfully are!
- If you want to combine your marathon with tourism, save the tourism for after the marathon. You don't want to spoil your race by walking your legs to death, eating the wrong dinner, or picking up a cold or flu beforehand. You'll also be less preoccupied with the upcoming race when you're out touring. Better to be basking in the glow of a runner's high than stressing about an upcoming marathon.
- Be careful about the food you eat. I once ate a kebab from a street vendor in New York City the day before a 24-hour race. I won't clutter your mind with the details of my suffering, but needless to say, I spent about as much time running for the bathroom as I did running on the racecourse.

After the Marathon

Given our travel requirements, my typical post-marathon routine during the Endurance 50 was not ideal for recovery.

Here's what you should do after finishing a marathon:

- Drink plenty of water to re-hydrate your body. Drink enough so that your urine is consistently clear or pale yellow in color.
- Eat a nice hearty meal containing protein to repair your muscles and carbohydrate to replenish your depleted muscle fuel stores. Examples include fish with rice pilaf, a turkey wrap, and pasta with meat sauce.
- Immerse your legs in an ice bath for 10 minutes to reduce swelling and muscle pain. I do this regularly at home, but it was not practical during the Endurance 50.
- Hit the sack early and sleep as long as necessary to wake up feeling fully rested.
- Try to run—okay, hobble—the next day for at least twenty minutes to work out the stiffness.

Quick Take: A convenient way to monitor your recovery status is to take your pulse first thing each morning. A pulse rate that is above normal suggests that your body is still working to recover from a recent workout and may require additional rest.

DEAN'S 50/50

How to Officially Run 50 Consecutive Marathons

How is it possible to run 50 official marathons in 50 days in 50 states when most marathons only take place on the weekends? We decided to involve the race directors of all the marathons we chose to officially run their sanctioned course. Sure, it required a ton of work, and became a massive, painstaking undertaking, but it was the only legitimate way to accomplish the goal of running 50 marathons in 50 states in 50 days. It took us years to get all of the logistics in place, but it was the right decision.

We knew that many of the marathon course maps posted on the internet were either incomplete or followed routes that were normally not passable on foot outside of race day. Without the help of the race directors, we wouldn't be certain we ran their actual marathon. Anyone could question our credibility. We had gone the extra mile in every other phase of planning the Endurance 50; none of us were willing to compromise here.

Because of all this planning, hard work and forethought, we now had an official starting line, a mechanism for following the sanctioned course, an official finish line, and an official race clock. Without all this in place, someone could legitimately debate the validity of the accomplishment. We had taken the extra measures to ensure we had the certification to prove each marathon. Done any other way, I couldn't sleep at night.

We also wanted potential participants to be able to sign up and register for the Endurance 50 marathons just as they would any other marathon. So interested runners could go to the Endurance 50 website and register on an Active.com page just like they do for any other running event. They were sent an official entrants packet prior to the marathon, and they were entered in the system and cross referenced upon sign-in at the marathon start. By all appearances, this was just like every other race.

Dean's Routine

Each day of the Endurance 50 was scheduled
to follow roughly the same timeline:

5:00 AM	Wake up
6:00 AM	Blood draw & urine collection (when scheduled, following research protocol)
6:30 AM	Breakfast
7:30 AM	Arrive at starting line
8:00 AM	Start
12:00 PM	Finish (plus or minus one hour)
12:30 PM	Finish festival
5:00 PM	Wheels up
6:00 PM	Dinner on bus
12:00 AM	Arrive at next destination (plus or minus two hours) Repeat 50 days.

Going the Distance

Before I started the Endurance 50 I wondered what would happen to my body over the course of 50 days of marathoning. Would I progressively break down and end up hobbling (or crawling) as the days wore on? Was I hurting my body?

The opposite turned out to be true. My body seemed to be growing stronger over the course of fifty days. I was able to run faster, with less exertion, as the days progressed. The human body is a remarkably adaptive machine, and this final marathon of 50 consecutive marathons was a telling indication of how the body responds to a physical load placed upon it over time.

Running and Sleep

Due to commitments that extended beyond running, and the travel factor, I slept little during the Endurance 50—no more than four hours a night, typically. This was not ideal. Research has shown that adequate sleep is needed to repair and refuel muscles between runs. The effects of sleep deprivation are cumulative, so that even a modest amount of sleep deprivation each night can add up to big problems over time. As few as thirty hours of cumulative sleep deprivation have been shown to reduce the cardiovascular performance of runners by more than ten percent. If you need eight hours of sleep a night and only get seven, your running may be compromised within a month. If you want to run well, do as I say, not as I had no choice but do during the Endurance 50, and get the sleep you need!

Sign Me Up

The number of runners in each Endurance 50 event varied considerably, from just two (the recreated Michelson Trail Deadwood Marathon in South Dakota on Day 10) to 42,000 (the live Chicago Marathon on Day 36). The eight live events were the largest, of course, because they had all of the infrastructure in place and permits lined up for mass participation. Most of the forty-two recreated marathons were capped at 50 participants; because that's the largest number we were able to obtain permits for. When support from local event organizers and officials allowed it, we were sometimes able to accommodate more runners. Other times, local authorities required us to cap the field at fewer than 50 runners.

Few of the early Endurance 50 marathons sold out. Interest steadily grew, and after a couple of weeks most events filled to capacity, with long waiting lists forming for some events. None of us could believe it. In fact, many of the later marathons saw their share of "bandits," or non-official participants who missed the cutoff but wanted to run anyway. I had no problem with that during the forty-two recreated marathons. Many of these folks made generous donations to our charity to cover their participation in the marathon.

The Rub

A lot of people thought I would be getting lengthy rubdowns and massages during the Endurance 50. I should be so lucky. The reality is that there just wasn't any idle time for such niceties. Upon completing the marathons many of the runners wanted to have me sign their finisher's certificate or book, and perhaps snap a photo or two. Most were tired and sweaty, and wanted to get to a shower. I didn't think it would be fair to make them stand around for an hour waiting while I got a rubdown.

On the bus, there was simply no extra room to house another traveler. We were already cramped with our existing crew. There was no way I was going to burden those guys with another passenger. In the spirit of being a team player, I had to make sacrifices. The bodywork and massages would have to wait until day 51.

Here are some of my current favorite quick race fuels

that'll surely give you a lift:

- Clif Shot Blocks
- Sports Bean Energizing Jelly Beans
- Ginger People Ginger Chews
- Peet's Coffee Chocolate Covered Espresso Beans
- Sharkies Organic Energy Fruit Chews

Short Answers to the 3 Questions I Hear Most Often

Q. How do you train?

A. I train by feel. I run as far and as fast as my body tells me to each day, though I do try to do at least two very long runs per week. Those base-building long runs are critically important to me.

Q. What do you eat?

A. I try to base my diet in natural, whole foods that existed hundreds of years ago (vegetables, meat, dairy) and avoid modern processed foods (fast food, packaged products, soft drinks).

Q. How do you keep from getting injured?

A. I do a lot of cross-training with other sports, including mountain biking and windsurfing, to strengthen all of my muscle sets.

Quick Take: Peel appeal. The peel of many fruits may be the most valuable part. That's because the peel contains triterpenoids, a powerful type of antioxidant. So use the whole fruit if you want maximum health benefits.

How Do You Do It?

One of the questions I am asked most frequently is captured in an email I received during the Endurance 50:

Message to Dean Karnazes:

"I've run multiple marathons over the years and find the notion of running 50 in a row unfathomable. I can't even walk the next morning, let alone run another marathon. How will you be able to do this?"

In working with Chris Carmichael, we theorized that the best way to recover from one marathon was to not put myself too far in debt during the previous day's marathon. We did two things to meet this objective: First, we set a baseline fitness goal of being able to run a four-hour marathon with an average heart rate of 110. We got there prior to the start of the first Endurance 50 marathon. Second, I participated in numerous ultramarathons that were much longer than 26.2 mile. The thinking here was that if I could run 100-miles comfortably, I could click off a marathon without undue strain.

Would this strategy work? We would have to wait 50 days to have our answer.

Words to Run By

While running a race in Portugal I noticed that spectators along the course kept shouting the same phrase over and over: *"Quem corre por gosto, não cansa."* Afterwards I asked someone to tell me what it meant. "Who runs for pleasure never gets tired," I was told. How true!

RUNNING TIPS

Ease Into It

While running is one of the best means to lose weight, it's important that you ease into running if you're currently overweight and new to this form of exercise. Running puts a lot of stress on the lower extremities. If you don't give your bones and joints a chance to adapt, you could get injured. Start by walking. Once a brisk walk has become fairly easy, insert brief segments of slow running into your walks (preferably on dirt or grass). Gradually increase the duration of these running segments until you are able to comfortably run the full distance of your workout.

Here's a sample four-week progression:

Mon	Tue	Wed	Thur	Fri	Sat	Sun
Walk 20 min.	Off	Walk 20 min.	Off	Walk 9 min. Jog 2 min. Walk 9 min.	Off	Walk 8 min. Jog 4 min. Walk 8 min.
Walk 25 min.	Off	Walk 7 min. Jog 6 min. Walk 7 min.	Off	Walk 4 min. Jog 4 min. Walk 4 min. Jog 4 min. Walk 4 min.	Off	Walk 4 min. Jog 5 min. Walk 4 min. Jog 5 min. Walk 4 min.
Walk 30 min.	Off	Walk 6 min. Jog 8 min. Walk 6 min.	Walk 20 min.	Walk 3 min. Jog 6 min. Walk 3 min. Jog 6 min. Walk 3 min.	Off	Walk 5 min. Jog 10 min. Walk 5 min.
Off	Walk 2 min. Jog 8 min. Walk 2 min. Jog 8 min. Walk 2 min.	Walk 30 min.	Walk 4 min. Jog 12 min. Walk 4 min.	Walk 4 min. Jog 12 min. Walk 4 min.	Walk 30 min.	Jog 20 min.

The Power of Visualization

Athletes in many sports use a technique called visualization, or mental rehearsal, to improve their technique. As a runner, you can do it, too. All you have to do is sit or lie still with your eyes closed and spend 10 minutes imagining yourself running smoothly, efficiently, and powerfully. The more vivid and realistic you can make these images, the more effective they will be. When you visualize yourself running, you activate the same parts of the brain's motor centers that become active when you actually run. But the advantage of mental rehearsal is that you can change these brain patterns for the better by seeing yourself running more efficiently and powerfully than you really do. Then your goal becomes turning visualization into reality.

Running to the Beat

Many runners like to listen to music through an iPod or other such device while they run. They feel the right kind of music gives them a sort of continuous “second wind,” an extra boost that enables them to run harder or longer. There may be some truth to this perception. For example, research by psychologist Peter Terry at the University of Queensland, Australia, has shown that exercise performance is enhanced by music with a faster beat. In fact, back in 1998, the great Ethiopian runner Haile Gebrselassie set a world indoor record for 2,000 meters by synchronizing his stride to the beat of a song called “Scatman.”

However, other runners—including many who consider themselves “competitive”—feel that music is an annoying distraction that interrupts their mind’s connection to their body and environment when running. Personally, I enjoy listening to music when I run, and do so periodically. I also enjoy listening to audiobooks on longer runs. However, I never race with headphones on, and encourage others to “unplug” during competition (primarily as a courtesy to other runners).

The USATF—America’s governing body for running and track and field—has banned the use of iPods and MP3 players at events it sanctions. This is not due to any perceived performance advantage but to safety concerns (it’s hard to hear the traffic officer shouting “Turn left!” when the Chariots of Fire theme song is blasting in your ears). My thought is that if you want to race with music, sign up for events such as the Rock n’ Roll San Diego Marathon that provide live musical entertainment along the course. Then boogie to your heart’s content.

Better Than Nothing

Many runners operate with a tacit belief that if they don't have at least twenty five or thirty minutes available to run, it's not even worth bothering to lace up their shoes. That's not true. An aggressive ten-minute run is worth the effort. You can burn more than 150 calories in a hard ten-minute run, which is also long enough to make a noticeable difference in terms of how you feel for the rest of the day. Plus, ten-minute blocks add up quickly. If you do a ten-minute run instead of saying, "Aw, forget it" once every week, you will complete thirteen more hours of running over the course of a year—enough to prevent roughly four pounds of weight gain and to produce a measurable increase in your cardiovascular health and fitness.

Running at Home

Treadmills offer a great solution for busy runners who struggle to squeeze workouts into their day. If the only free time you have is before the sun comes up or after it goes down, a home treadmill allows you to train without having to run in the dark. If you have small children at home, making it difficult or impossible to leave home to run sometimes, you can watch your kids and run at the same time with a home treadmill. A well-built treadmill for home use costs \$1,500 to \$3,000. They're not cheap, but if it keeps you going, it's well worth the price.

Never Too Busy

Here are some other tips to maintain a consistent running regimen despite a busy schedule:

Plan Ahead – Make a habit of knowing when and where you will run tomorrow before you go to bed each night. Set your alarm clock, and stick with the plan.

Stay on schedule – In addition to planning your running opportunities, you might find it helpful to create a schedule for your entire day. This will help to ensure that your other daily activities don't spill over into the time slot you had reserved for your running.

Do what works for you – Consider all options when trying to determine your best running opportunities. Late-night and pre-dawn runs can be invigorating.

Don't be afraid – Many runners fear that running will sabotage their careers or lead to social ostracization at work or elsewhere, but in my experience, however, people actually respect the discipline and commitment required to make these sacrifices.

Use teamwork – Building relationships with other runners is another great way to reduce the frequency with which you find yourself “too busy to run.”

Multitask – One great way to save time is to try to accomplish something else while you run. For example, you can literally *run* short errands (to the post office, to the bank, to the market, or wherever).

Be flexible and opportunistic – Creating plans and schedules will certainly reduce the number of running opportunities you miss, though it will not eliminate them. Try to be flexible and adaptable, and seize on gaps in your schedule to get a quick run in. That way, if something unexpected disrupts your normally scheduled run, you don't feel stressed about missing a workout (and if something unexpected doesn't disrupt your normally scheduled run, you can get in *two* workouts that day!).

Attack Your Weakness

One of the best ways to adapt your training for improved performance is to identify and attack a weak link in your fitness. Most runners have a clear sense of their greatest fitness weakness. Usually it's one of three things: lack of speed, lack of endurance, or lack of race fitness (or the ability to sustain faster speeds for prolonged periods of time). For me, unfortunately, it's sometimes all three. What are your fitness weaknesses?

Addressing a fitness weakness is simple. If your primary weakness is lack of speed, include more high-intensity intervals in your future training. This might come at the expense of duration (i.e., going faster, though for a shorter distance) in the short term, but building speed may boost your cardiovascular fitness to such a degree that your endurance ultimately gets a lift as well. If your primary weakness is lack of endurance, include more long endurance workouts in your future training. Maybe try dual daily workouts to achieve this end. Running twice a day sometimes makes it easier to build your endurance. And if your primary weakness is lack of race fitness, a great way to work on this quality is to include shorter-distance races as training runs. For instance, if you're training for a half-marathon, sign up for some 10K races beforehand to build your race fitness. If your goal is a marathon, enter a couple half-marathons beforehand as fast training runs.

Mind Games

Every runner occasionally finds himself or herself dreading a planned run. Overcoming this dread and having a good run anyway can be as easy as using one of the following motivational “mind games”:

- Change your route to something unfamiliar
- Buy new running shoes or clothes for your run
- Find a friend to run with
- Take your dog with you (or, for a real adventure, take a neighbor’s dog)
- Tell yourself you’ll just run for fifteen minutes (you’ll almost certainly wind up running longer!)
- Drive somewhere cool to run (the beach, a nice park)
- Change your pace: do something short and fast

Quick Take: It's hard to find motivation to run when you don't have the energy to run. Dietary fiber is a good friend to runners, because it slows the absorption of foods calories and helps provides a more steady, lasting supply of energy to the body. There are two types of fiber: soluble and insoluble. Soluble fiber dissolves in water to form a gel-like material and can help lower blood cholesterol and glucose levels, while insoluble increases the movement of material through your digestive system. Soluble fiber sources include: oats, beans, apples, peas, and citrus fruits. Insoluble fiber sources include: bran, nuts, many vegetables, and whole-wheat flour. Aim to consume at least 25 total grams of fiber daily.

Small Goals

Setting short-term goals is an effective way to use baby steps to build confidence and morale as you train for a marathon or other event. Here are examples of short-term goals you might use in training for a marathon:

- Run six days next week
- Run forty miles next week
- Increase my running by five miles per week for the next four weeks
- Complete a half marathon
- Run 150 miles next month
- Complete my first twenty-five-mile run

Watch Where You're Going

It's tempting to look off in the distance and enjoy the scenery when running on wilderness trails, though it's not always safe. When the path is narrow and the footing uncertain, keep your eyes on the trail. Look ahead about ten feet and find a "line," or where you are going to step for the next four to six strides. With practice, you will become more confident and more comfortable in choosing the right place to put your foot down. Rock surfaces can be slippery, as can tree logs. Scan for flat patches of earth to plant your foot on, and slow down when you can't actually see the surface of the trail—such as when it's covered with leaves. You never know what might be lurking underneath.

Quick Take: Runners tend to develop a lot of tight spots in their muscles that cause stiffness and can lead to injuries. One way to work out these tight spots is with a therapeutic foam roller. By rolling your legs across one of these tools at various angles for just five minutes a day you may notice a big boost in your mobility.

Knowing When to Say When

Toughness and determination are good qualities to have as a runner, but there can be too much of a good thing. Sometimes you need to be smarter than you are tough or determined. Here are four circumstances under which you should immediately stop running and “live to fight another day”:

- Never try to run through more than moderate pain in a muscle, bone, or joint.
- Stop running whenever you experience dizziness, lightheadedness, confusion, or blurred vision—all of which are symptoms of heat illness and severe dehydration.
- Don't try to continue training as normal when experiencing signs of overtraining syndrome, including persistent fatigue, declining performance, lasting muscle soreness, and low motivation.
- Do not attempt to run when experiencing a fever, flu-like symptoms, or other ailments including diarrhea and food poisoning.

Preventing Muscle Cramps

It is widely believed that exercise-related muscle cramps are caused by dehydration or depletion of electrolyte minerals through sweating. But research does not support this belief. Rather, exercise-related muscle cramps appear to be caused in most cases by a sort of tendon fatigue that occurs when exercise is unusually prolonged. Some runners are more susceptible to muscle cramps than others, but all runners can reduce their susceptibility to muscle cramps by gradually increasing the duration of their longest runs in training. There are few shortcuts when it comes to preventing muscle cramps. Those who pay their dues reap the rewards, or, in this case, avoid suffering the consequences that come with every shortcut.

Stay Positive, Heal Faster

It has always been my nature to deal with setbacks internally and resist urges to complain about my suffering to others. A recent study suggests this habit is healthier than I thought. Researchers from the University of Missouri found that injured male soldiers who scored higher on a test designed to assess “traditionally masculine” psychological traits (including unwillingness to complain about internal pain and suffering) tended to heal faster. The authors of the study speculated that men who are more reticent to communicate their suffering to others may also have a stronger belief in their ability to overcome suffering on their own, and that this belief is to some degree self-fulfilling.

The takeaway? Try not to wallow in your misery. Instead, channel the discouragement you may feel into a renewed commitment to overcome your setback. Fight harder and you will heal faster.

Quick Take: QuickClot is a consumer version of a rapid blood-clotting sponge already used by the military and EMT's to help stop bleeding and instantly cauterize your wounds. You can purchase it at many pharmacies.

It Starts with the Shoes

Improper footwear can contribute to many injuries. Wearing the appropriate type of running shoe for your foot can help prevent such occurrences. Generally, runners with flat arches may benefit from a motion control or stability shoe, with extra stability features to manage overpronation of the foot. Runners with normal arches typically fare best with a neutral shoes. And those with high arches most often require a running shoe with extra flexibility.

These are guiding principles, not definitive rules. The “best” shoe is the one that works best for you. My recommendation is to never skimp when it comes to finding your ideal running shoe. In my experience, running specialty stores are the best retailers to purchase running shoes from, as most of the sales staff are passionate runners themselves and understand how to match a runner’s foot and running style with the ideal type of shoe.

I have neutral biomechanics, but I log a ton of miles, so I wear extra-durable shoes designed for runners with normal arches, such as The North Face Arnuva 50 Boa.

Arch You Glad You Picked the Right Shoe?

Runners with high foot arches tend not to absorb ground impact forces as well as runners with normal arches, making them more prone to bone strains and stress fractures in the lower legs. Wearing a running shoe with extra cushioning can help to attenuate some of this risk. Runners with low arches tend to have less stable hips and knees than runners with normal arches, predisposing them to overuse injuries in these joints. Selecting footwear from the “motion control” category of running shoes may help to reduce your risk of experiencing knee and hip pain if you have low arches.

A Breath of Fresh Air

According to the Environmental Protection Agency,
the ten United States cities with the cleanest air are as follows:

1. Cheyenne, Wyoming
2. Santa Fe, New Mexico
3. Honolulu, Hawaii
4. Great Falls, Montana
5. Farmington, New Mexico
6. Flagstaff, Arizona
7. Tucson, Arizona
8. Anchorage, Alaska
9. Bismarck, North Dakota
10. Albuquerque, New Mexico

Runabout

The legendary running coach Jeff Galloway has probably trained more first-time marathoners than anyone. Jeff is a hero of mine and teaches a unique training system that includes regular, brief walking breaks. He's also among the few running coaches who encourage runners training for a marathon to do training runs exceeding 26.2 miles in distance (including the walking breaks). Beginners who follow this advice report that the walking breaks make these "overdistance" workouts perfectly manageable (provided they do them towards the end of the training process, when they're already pretty fit) and that they're a great confidence builder.

I recommend a slight modification to Jeff's approach that I simply call runabout. Inspired by the Australian Aboriginal practice of walkabout, it works like this: After you've put in some good training and built a fairly high level of baseline fitness, pick a weekend morning to set out the door with a running pack containing a credit card, a cell phone, and some fluid and snacks—maybe also a map or a GPS if you want to get really sophisticated. Choose a direction (i.e., north) and start running. Keep running until you feel like taking a break. You can jog, walk, or hike—just try to stay on your feet. When you're ready for some more running, go for it. If you see a Starbucks and feel like a latte, stop and grab one. Stick a straw in it and drink as you run.

Try to make a complete day of it. Don't worry about how many miles you actually run. Focus on staying on your feet and on moving forward one way or another, whether it's by running, hiking or walking, for six to eight hours. Mostly, have fun. Not only will you get a great workout and build confidence for an upcoming marathon, but a runabout is also just an interesting way to spend a day.

Personally, I particularly enjoy starting before sunrise and finishing after sunset. Rarely in our modern society do we spend an entire day outside, and there's just something enchanting about watching a day go by from the exterior of a building rather than locked inside. There's lots to be learned from those Aboriginals, Starbucks withstanding.

Tips for Heat Acclimatization

Whenever you relocate from a temperate environment to a hot one (with air temperatures exceeding 85 degrees), it's best not to immediately resume your normal training routine. Instead, give your body a chance to acclimatize to the new conditions. Here's how to do it:

1. On the first day, run lightly or do not run at all. Either way, spend some time outside in the afternoon heat.
2. The next day, go for a shorter than usual run at a slower-than-normal pace.
3. Gradually increase the duration and intensity of your runs each subsequent day until you're doing your normal workouts by day six or seven. Research has shown that it takes that long for the body to fully acclimatize.

Quick Take: Many runners experience uncomfortable chafing of their

inner thighs on long runs. To prevent this problem, rub some

lubricant into this area before you start.

Body Glide and Aquaphor are two favorites.

When It Rains

Some runners don't like running in the rain. Others do. Including me. Running in the rain will do you no harm as long as you avoid totally saturated feet. Once your socks become soaked, your chances of getting a blister increase. GoreTex shoes can help keep your feet dry, up to a point. But when it's really coming down, be mindful of potential blistering, and stop, if possible, as soon as you feel a "hot spot" emerge. When running in the rain, you'll find it most comfortable to use breathable rain gear, such as The North Face Avocet jacket, designed especially for this use. It will keep the water out without trapping your excess body heat against your skin.

Acute mountain sickness (AMS) can strike endurance athletes at altitudes as low as 6,300 feet. Signs of AMS include: loss of appetite, a strong headache accompanied by nausea, ringing in the ears, loss of breath, and dizziness. Here are some products that can help:

- Diamox (prescription drug)
- Ginkgo Biloba (over-the-counter herbal remedy with mixed results in studies)
- Ginger (preferably raw, if you can tolerate it)

Quick Take: Get there early. New evidence shows that acclimatization begins after just a few high-altitude hours when a chemical trigger in the body called Hif-1 Alpha activates genes that help you adapt to heights.

Tips to Prevent Running Blisters

- Wear running socks made from moisture-wicking materials such as CoolMax
- Wear socks with minimal seams, especially across the toes
- Break in a pair of new shoes with a couple of short runs before going long
- Keep shoelaces sufficiently tightened; sliding feet can create friction
- Lubricate known trouble spots on your feet before you start (Body Glide and Aquaphor are my personal favorites, though some people prefer a dry lubricant such as talcum powder)
- Remove pebbles and debris from your shoes as soon as you notice them
- If possible, stop running the moment you feel a "hot spot" developing

Trail Running Tips

All runners know that running on trails is very different from running on the roads. Here are some tips for a smoother transition to the dirt.

- Try wearing gaiters (fabric coverings for the ankles and lower legs) to keep pebbles and twigs out of your shoes. You can find gaiters at most outdoor retail stores. You can also purchase trail running shoes with integrated gaiters.
- Normal running shoes work fine on graded fire roads, but when running on technical single track consider trail-specific running shoes.
- To reduce your risk of twisting an ankle on the trails, strengthen your quadriceps (the muscles on the front of your thigh). I do this by cross-training on a mountain bike.

Shortcuts to the Mountains

If you're very serious about improving your running performance and you have seven to ten grand burning a hole in your pocket, you can get the benefits of living at altitude by sleeping in an altitude (or "hypoxic") tent. Leading brands are Hypoxico (www.hypoxictent.com) and Colorado Altitude Training (www.altitudetraining.com). Using one should improve your personal best race times by two to four percent.

A cheaper alternative that could yield roughly half as much improvement is to spend five minutes a day breathing through a straw. This simple exercise strengthens the breathing muscles, so they don't fatigue as quickly during high-intensity running.

Steep Hill Sprints

In recent years, steep hill sprints have become popular in the elite ranks of distance running. Of course, they're beneficial for runners of every level. To do them, find the steepest hill around and sprint up it at maximum effort for just ten to twelve seconds. Walk back down and repeat a few more times. Try to work up to six to eight reps per outing. Steep hill sprints help build a more powerful stride, and also reduce injury risk by strengthening the running muscles.

Going Downhill

Some runners actually prefer running up steep hills to running down them, because running down steep hills can be rather scary, especially on technical single-track trails. You fear losing control and twisting an ankle, or worse. Plus, it can be rather hard on the knees. The key to overcoming this fear and discomfort is to learn how to run downhill properly. Instead of leaning back and landing on your heels, tilt your entire body forward from the ankles and land on your mid-foot. You will run faster this way, and with more control and less shock to your knees.

Running as Play

One of the things I enjoyed most about running for Benner Cummings was that he made workouts seem like play. My favorite Benner workout consisted of running along the beach and repeatedly sprinting away from incoming waves to avoid getting wet. It was an incredible workout, but we didn't realize how hard it was until after we had completed it. You can mix effective training with play by doing what the Swedes call "fartlek" workouts, meaning "speed play." During a regular training run, randomly pick out landmarks ahead of you and run hard until you reach them. Go completely by feel. Hold your sprint until you reach your mark. It'll mix up your workouts and help build fitness quickly.

How to Run with Flow

The flow state is special. You can't achieve it every time you run. But there are certain things you can do to facilitate it. Here are some of them:

- Run with a specific goal (e.g. going for a certain amount of time, though with no particular distance in mind).
- Eliminate distractions, such as listening to music while you run.
- Race only when you're fit and ready to race (flow starts with the body being capable and rested).
- Believe in your ability to achieve your goals and push all doubts and fears out of your head.
- Be in the moment. Don't think about what's still ahead. Just take it one step at a time.

Recommended Reading

I enjoy learning most by talking with fellow runners, but I do my share of reading, as well, and I encourage you to do the same. Here are three good resources for valuable information to improve your running performance and experience:

The Courage to Start, by John "The Penguin" Bingham – An inspirational and educational book for beginning runners.

Marathon & Beyond – A small-circulation quarterly publication that's always packed with great articles for marathon and ultra marathon runners.

InjuredRunner.com – A valuable source of tips to identify and treat a number of common running injuries.

MAINTAINING HEALTH

Drill It

Some runners find that performing technique drills helps them improve their running form. Here's a selection of technique drills to try.

Butt Kicks

Run in place for 30 seconds with your thighs locked in a neutral position and try to kick your butt with your heel on each stride.

High Knees

Run in place for 30 seconds, lifting your knee as high as possible on each stride.

One-Legged Run

Run (hop) on one leg for 20 strides, then switch to the other leg for 20 strides.

Quick Take: Greeks use lots of cinnamon and spices in their recipes. Cinnamon has been shown to improve your insulin sensitivity. Keep a shaker handy and sprinkle liberally on the foods you eat.

Strengthening Your Lower Abdominal Muscles

Here are two good exercises to strengthen your lower abdominal muscles and improve your core stability when running.

Lower Abdominal Squeeze

Lay face up with your arms relaxed at your sides and your legs extended straight toward the ceiling, heels together. Now contract the muscles of your lower abdomen and, by doing so, try to lift your heels ever so slightly toward the ceiling. (This is a very small movement). Hold the contraction for one second, then relax for one second. Repeat the exercise until you feel a nice burning sensation in the targeted muscles.

Stick Crunch

Lie face up on the floor and draw your knees to your chest. Hold a short stick, rope, or rolled-up towel between your hands (about 15 inches apart) with your arms extended straight toward your toes. Try to reach the stick past your feet by contracting your abdominal muscles and pulling your chest toward your knees and your knees toward your chest (i.e. curling into a ball). Pause briefly with the stick on the far side of your feet and then relax. Repeat 12-20 times.

Quick Take: Carbohydrate provides fuel for the immune system.

While the mechanism of action responsible for this is not fully understood, research has shown that consuming carbohydrate (for example in a sports drink) while running reduces the suppressive effect of intense, prolonged exercise on the immune system.

Correcting Muscle Imbalances

One of the most effective ways to prevent running injuries is to regularly perform exercises that strengthen important stabilizing muscles. Here are three such exercises. I recommend that you try to do them every other day.

Single Leg Squat

This exercise strengthens the stabilizing muscles of the hips.

Stand on your right foot with your left knee slightly bent and your left foot elevated an inch or two above the floor. Bend your right knee and at the same time bend forward at the waist until your chest touches your knee. Use your arms and your elevated left leg for balance. Return to the start position. Do 10-12 repetitions and then repeat with your left foot planted.

Side Step-Up

This exercise strengthens the stabilizing muscles of the hips.

Stand with your side next to a 12 to 18-inch platform (such as a weight bench or tall aerobics step). Place your right foot on the platform keep your left foot on the floor (your right knee is bent and your left leg is straight). Shift your weight onto your right leg stand on that leg, lifting your entire body 12 to 18 inches. Pause briefly with your left foot unsupported in the air next to your right foot, then bend your knee again and slowly lower your left foot back down to the floor.

Cook Hip Lift

Strengthens the lower abdominal muscles

Lie face up with your legs sharply bent. Place your left foot flat on the floor and draw the right leg up against your torso, holding it in place with pressure from your hands. Now contract the hamstrings and buttocks of the left leg to lift your butt off the floor two or three inches. Concentrate hard on keeping your deep abs contracted and your pelvis neutral. Hold this position for five seconds and relax. Repeat five times and then switch legs.

Quick Take: Go raw. Cooking vegetables has been shown to drain them of nutrients. It's best to eat them raw.

The Ideal Sports Drink

Not all sports drinks are the same.

I recommend that you choose one with the following characteristics:

- *6-8% carbohydrate (14-19 grams per 8-oz. serving)*

Drinks with higher level of carbohydrate will not be absorbed as quickly and may cause gastrointestinal distress (nausea, stomach bloating, and sometimes also vomiting or diarrhea).

- *At least 120 mg sodium per 8-oz. serving*

You need this amount of sodium to maintain proper fluid balance in your body. Also, sodium aids the absorption of fluid, so it doesn't slosh around in your stomach.

- *At least two types of carbohydrate*

Different types of carbohydrate are metabolized through different pathways. Therefore sports drinks containing multiple carbohydrate sources are able to deliver energy to the muscles faster than sports drinks with an equal total amount of just one type of carbohydrate. Look for some combination of glucose, sucrose, dextrose, maltodextrin, or fructose.

- *Not too much fructose*

Avoid sports drinks whose labels list fructose or high fructose corn syrup as their first ingredient. Too much fructose can cause GI distress during exercise.

Eating for Recovery

Studies have shown that, to maximize your post-run recovery, you need to consume protein, carbohydrate, and fluid within an hour after each run. Here are some especially good post-workout snacks, meals, and supplements.

Recovery Nutrition Option	Why
Smoothie with Whey Protein Powder	Appealing after exercise; rapidly-absorbed form of recovery nutrition
Tuna wrap + whole apple or pear	Ideal ratio of carbohydrate and protein
Lowfat Milk	Studies have shown that milk is an especially effective form of post-exercise nutrition for recovery
Energy Bar + Water	Convenient and well-formulated for post-exercise recovery
Recovery Drink Mix or sports drink (e.g. Accelerade)	Patented 4:1 ratio of carbs to protein has been shown to extend endurance, speed muscle recovery, and enhance rehydration; convenient and easy to consume even when you're not hungry

Nature's Recovery Secrets

According to the U.S. Department of Agriculture, the following 20 foods are excellent sources of antioxidants—nature's recovery potion: small red beans (also called Mexican red beans), blueberries, red kidney beans, pinto beans, kiwi fruit, cranberries, artichokes, blackberries, prunes, raspberries, strawberries, red delicious apples, granny smith apples, pecans, sweet cherries, black plums, broccoli, black beans, plums, gala apples.

Some non-drug alternatives for treating muscle strain and soreness include:

- Arnica montana
- MSM (Methylsulfonylmethane)
- C3 Complex (turmeric root)
- BioAstin

Quick Take: Because soy contains phytoestrogens (plant versions of the primary female sex hormone), soy is a popular food among health-conscious women. But it's a nourishing food for men and women alike: high in protein, vitamins, minerals, and antioxidants, and low in fat. To get more soy in your diet, try using 1 Tbsp soy flour and 1 Tbsp water instead of an egg when cooking or baking. You can also substitute 1/4 cup mashed silken tofu for an egg in almost any recipe.

Follow the "Losers"

According to research data, these are the top three habits of men and women who lose significant amounts of weight and keep it off permanently:

1. Daily exercise
2. Portion control
3. Behavior modification

Quick Take: If you're looking to shed a few pounds, try eating more protein in the morning. Studies show that consuming protein in the a.m. helps control appetite, preserve muscle, and increase fat loss.

Prolonged strenuous exercise and overexertion can lower your body's natural immunity to bugs. Here are some ways to fortify your immune system:

- Mushrooms – These edible fungi have been shown to boost your body's "natural killer cells"
- Echinacea – Although controversial, some studies have found that it actually does reduce the severity and duration of colds
- Garlic – Not only delicious, garlic contains allicin, which has immune-enhancing properties
- Probiotics – Found in yogurt, probiotics are compounds that can boost the good bacteria in your gut

First Things First

If I could only recommend one dietary change to improve your health, it would be to reduce your consumption of refined sugars. Although fat—and especially saturated fat—has typically received the most blame for causing America’s weight problem, increasing evidence suggests that sugar might be the true culprit. For example, the rate of obesity is more than three times greater in our country than in France. Yet the French actually eat more fat than we do (forty-two percent of calories versus thirty-seven percent) and more saturated fat, as well.

The one glaring difference between the American and French diets is the amount of sugar in each. We get more than seventeen percent of our daily calories from sugars added to foods, whereas the French get only ten percent. So if you want to improve your diet, and your overall energy level, the very first thing you should do is cut out sugar. Learn to scrutinize the labels of the packaged foods you eat. If it contains more than 10 grams of “sugars” per serving, don’t eat it.

If it stinks, eat it. Cruciferous vegetables have a number of health benefits, including reducing the risk of some forms of cancer, and are packed with nutrients. Don't fret about the odor; it is the valuable sulfur-containing compounds in cruciferous vegetables that give them their pungent aroma.

Here are some excellent sources:

- Broccoli
- Cabbage
- Brussels Sprouts
- Cauliflower
- Watercress

Quick Take: As a substitute for pasta, try Kombu noodles. They are made from a sea vegetable and contain no flour.

They have a much lower glycemic index than regular pasta, so they provide more lasting energy.

The “Neanderthal” Diet

"Diets come and go. This one's been around for thousands of years."

The premise is straightforward. When trying to decide what to eat and what not to eat, use this simple filter: Would a Neanderthal Man have had access to this food? The rationale for asking this question is simple: The foods that early humans ate are those that our bodies were designed to eat. Could Neanderthal Man have eaten pasta? Nope. Ice cream? Uh-uh. White bread? No way. Fruit? Sure, find a tree. Vegetables? You bet; he'd pull 'em right from the ground. Fish and lean meat? Definitely. If Neanderthal Man could catch it, he could eat it. And back in the Neanderthal days it was all organic, so try to go organic whenever possible as well.

It takes some discipline to eat in this primitive way, but you'll be amazed by how much better you feel when you do. Long live Neanderthal Man!

Quick Take: Staying hydrated is important not only for performance when running but also for basic health every day. To stay properly hydrated throughout the day, get in the habit of carrying a water bottle with you wherever you go. Drink enough so that your urine remains pale yellow or clear in color.

RUNNING AS A COMMUNITY

Join the Club

Joining a running club is a great way for both female and male runners to enrich their running experience. Clubs boost motivation, provide group workout opportunities and sometimes even expert coaching, and offer excellent opportunities to make new friends with a common interest. To find clubs in your area, ask around at your local running specialty shop or search a nationwide list of running clubs at the Road Runners Club of America website (www.rrca.org/clubs).

Where Runners Gather

Group runs and events are not the only environments where runners can fellowship and share camaraderie. You can also do it online. There are several running websites with lively forums where runners can swap stories, advice, and ideas. Here are a few:

- www.active.com
- www.runnersweb.com
- www.runnersworld.com
- www.runningtimes.com
- www.thefinalsprint.com

How Young Is Too Young?

There is no generally recognized minimum appropriate age to run a marathon. I ran a marathon when I was fourteen years old, so I'd be a hypocrite to state that running a marathon in your teens is too young. However, there are many examples of gifted runners who pushed themselves too hard in their youth and found themselves past their running prime by the time they graduated from college. Therefore, as a rule of thumb, I recommend that highly motivated young runners concentrate on challenging themselves in school races and 5K and 10K road races at least until they graduate from high school, and only then attempt their first marathon, if they can't wait any longer. As the Maniacs and countless others illustrate, running is an activity that can last a lifetime. It would seem prudent not to risk your future running prospects by going too far too young.

Tips for Parents of Youth Runners

- Lead by example. If you run, your kids probably will. If you tell them to run, they probably won't.
- Keep it fun by varying runs with different environments (trails, grass, tracks) and workout types (hills, sprints, easy runs, etc.).
- Celebrate every run as an accomplishment, even if it's just with a sweaty hug. (That probably means more from a parent than all the finisher's medals in the world.)
- Kids love technology. Consider incorporating it into your child's running. My kids enjoy using a GPS device that allows us to map runs in real time as we go.
- Kids are naturally competitive. Give them opportunities to compete in fun runs and such. But be sure to teach them that, win or lose, every race is a success when they give their best effort.

Ways to Run for Others

There are lots of ways your running can benefit other people. Here are a few:

- Join Team in Training (www.teamintraining.com)
- Ask your friends and coworkers to pledge a dollar per mile for your next marathon, then send the grand total to your favorite charity
- Participate in races that benefit charities (as most do)
- Volunteer for Girls on the Run (www.girlsontherun.org) or one of the many other great youth running programs

How to Raise Money for Your Cause

We all have different causes that are important to us. To raise money outside an existing program (like Team in Training) requires a slightly different approach.

Here is a suggested format to follow:

-Register with one of the online donation sites. Active.com is one of my favorites. It is a free service to the fundraiser and allows potential contributors to make secure online donations. You can customize this site to explain your cause and the event that you are planning to participate in. Some people build very elaborate sites—with pictures, graphs, charts and maps—while others take a very simple approach.

-Once you've developed the site to your liking, send a message to all your contacts explaining what you're doing and why you're doing it. Be sure to always include a link to your fundraising page.

-Active.com has a variety of online tools that allow you to measure the activity of your fundraising campaign, including the amount of traffic to your site and the amount of money raised.

-At the end of each month, Active.com will send you a check. They take \$1 out of each donation as their processing fee.

-Be sure to always thank your donors. You are a hero, and so are they!