

Injury Avoidance Tactics

Most runners know about injuries. They're almost part of the game. Run long enough or hard enough, and you'll probably come down with an ache that will temporarily sideline you.

Fortunately, most running injuries are short-term. After a few days or weeks of rest, you can return to your regular routine. Still, there is a better way: Don't get injured in the first place.

If you adopt the principles outlined on these pages, you'll have a reasonable chance of running in good health indefinitely. Ignore them, and... well, you know. You reap what you sow.

Follow a straight and even path

The best surfaces for running are firm but not too hard, relatively flat (without camber) and smooth (without ruts or holes). Generally, roads make fine running surfaces, but keep in mind that most are cambered so that water will run off the centre of the road. As you run down the road against traffic, the slant causes your left foot to pronate (roll inwards) and your right foot to supinate (roll outwards). So map out your routes over the flattest streets you can find. Here's a look at other possible running venues.

Pavements

Stay off concrete pavements unless you are running in heavy traffic and need to get off the road. Concrete is significantly harder than asphalt, and since pavements aren't continuous, you have to jump off and on at every corner. Furthermore, many pavements are cracked and uneven. If you catch your toe on a raised paving slab, the next thing you know, you'll be nose-down against the pavement.

Lawns and other grassy areas

Because they're soft, you might think that golf courses or wild areas would be ideal places to run. They can be – but too much unevenness on these surfaces will force the muscles and tendons in your feet and legs to work far harder than they would on a flat course and increase the possibility of injury. When you consider that more than half of the population has some biomechanical abnormality, you begin to see why it can be downright treacherous if you head out over terrain where ruts and holes lie hidden in the grass. You're better off running on trails or close-cropped, even grass because you can see any rough spots and avoid them.

Running tracks

Tracks offer even surfaces that are firm but not too hard. The one disadvantage is that they force you to turn frequently and can strain your muscles unevenly. But if you change direction often, you'll lessen the chances of injury. Also, run in the far outside lanes, especially during warm-ups and cool-downs.

Beaches

Most beaches are poor places to run. Generally, the sand is too soft and causes uneven footing, which strains and stresses your leg muscles. Also, the beach is slanted, and just as on a cambered road, your legs are forced to work unevenly – one pronating too much and the other oversupinating. However, if you can't resist a seaside jaunt, run at low tide, when you can get on packed sand and a flatter stretch of beach. Also, don't run too far in one direction; turn around to reverse the stresses on your legs.

Warm up, cool down

When you first get up in the morning, your muscles and soft tissue are tight. In fact, at that time, your muscles are generally about 10 per cent shorter than their normal resting lengths. As you move around, they stretch to their normal lengths. Then when you start to exercise, your muscles stretch even more to about 10 per cent longer than their resting lengths. This means you have a 20 per cent change in muscle length from the time you get out of bed until your muscles are well warmed up.

According to basic laws of physics, muscles work more efficiently when they are longer; they can exert more force with less effort. This means, too, that longer muscles are much less prone to injury.

Make it a habit to warm up before a run or race. Pedal for a few minutes indoors on a stationary bike, or skip with a rope for a few turns before you head down the road. If you'd rather warm up on the run, begin with a walk or a slow jog and gradually move into your training pace.

Cooling down can also help you to avoid injury. An easy jog after a hard session or race has been shown to speed recovery by helping to remove any lactic acid that may have accumulated. It also gently brings your muscles back to a resting state.

A good warm-up and cool-down are especially important before and after a hard work-out such as intervals or a race, in which you push your muscles to their limits. The extra time you spend warming up your muscles before a training run or race and cooling down afterwards is worth the effort in improved efficiency and decreased likelihood of getting injured.

Stretch out

Without flexibility, you are an injury waiting to happen. Tight muscles cannot go through their full range of motion. Lack of flexibility is probably the biggest cause of Achilles tendinitis and is a major factor in plantar fasciitis and shinsplints.

Although the muscles in the backs of your legs (the hamstrings) tend to be the workhorses, don't forget to stretch the muscles in the fronts of your legs as well. They're busy, too.

Stretching is not the same as warming up. Trying to stretch 'short' muscles may cause injury. The best time to stretch is after a run, when your muscles are warm and elongated. Make stretching part of your routine every day.

Back off

If you train hard every day, you'll wear your body down rather than build it up. You need to recover after a tough training session or a race – give your muscles a chance to mend and stock up on glycogen for your next hard effort. This is why most experts recommend that you never schedule hard sessions two days in a row. Give yourself at least one day of easy running or rest between hard efforts. If you run fast one day, train slowly the next. If you do a long run one day, plan a short one for the following day. This is the hard–easy method of training.

Just as some people need more sleep than others, some people need more recovery. You may discover that your body performs best when you rest for two days after a hard training session. Or you may even need three easy days. Experiment with various combinations of hard and easy days, and compare the merits of easy running versus rest or cross-training.

Chill out

Let your training schedule be your guide – but never your jailer. One of the surest ways to become injured is to train hard on a day when you're fatigued or feeling soreness or the pain of an injury about to happen. Even if you're following all of the rules – running on a good surface, warming up, stretching, using a hard–easy pattern – other factors of your lifestyle figure into your physical wellbeing and level of fatigue. Stress at work or home or lack of sleep can take a toll as well.

If you feel fatigued or overly sluggish, or if you notice twinges of muscular pain, ease up on your training. If you've planned speedwork, run easy instead or take a day off altogether. You will not lose fitness over a day, or even a few days, of rest. Unfortunately, most runners have a hard time following this advice.

Many runners insist on adhering to the printed training schedule as if it were gospel. They refuse to deviate by a single mile from that program, as they believe that any modification will ruin their chances of running a good race. In fact, the reverse is true. They'd benefit more by giving their bodies a chance to recover.

Remember, a training schedule is built on the assumption that you aren't experiencing any unusual pain before, during or after the run. If pain or fatigue does strike, don't hesitate to modify your work-outs.

Branch out

Runners once took a run-or-nothing approach to their sport, and many still do, believing that other sports cannot benefit their running and may in fact hurt it. The wiser runner now explores other options, both to supplement running during periods of good health and as a substitute for running during injury phases. It's a rare runner today who doesn't employ some cross-training.

Participating in another sport a couple of times a week gives your feet and legs a welcome respite from the constant pounding of running and strengthens muscles that running does not exercise. In both of these ways, cross-training can help to protect you from injury.

Replace an easy run or rest day with a cross-training workout. After all, it is often not total rest that your body needs but merely a break from the overspecialised action of running.

The more muscles you can involve in your training programme, the less likely you are to sustain an overuse injury. Additionally, by working more of your major muscle groups, you improve your overall state of fitness.

If you do become injured through running and have been cross-training regularly, you will have an activity to turn to that will keep you fit while you recover. Overuse symptoms such as soreness or injuries caused by too much shock or jarring can be relieved through swimming or cycling. By using a stair-climber, rowing machine or cross-country ski machine, you can take the stress off an injured area and still get an excellent cardiovascular work-out.

Space your races

Racing pushes the limits of your speed and endurance, and too much racing can push you beyond your ability to avoid injury. Racing is hard on your body, so you must give yourself plenty of time to recover after each event.

The general rule is to take one easy day or rest day for each mile you have raced. And certainly don't race again until that period has passed. For example, allow one easy week following a hard 10K and an easy month after completing a marathon. Top marathoners believe that they can run only two or three good marathons in a year – the gruelling event takes that great a toll.

Occasionally, you may read about someone who runs an incredible number of races – a runner who runs a marathon every week for a year, for example. It's hard to believe anyone can do that without getting injured, but there are always some people who can beat the odds. A few people can smoke three packs of cigarettes a day and live to be 100. But that doesn't mean you can play the odds without suffering the usual painful consequences.

Write it down

Keeping a training log of your daily runs may seem compulsive or boring, but charting your distance, pace and course, the weather and how you feel can give you an important perspective. With a running log, you can trace your progress and detect errors accurately and objectively. You can see if you've been training too little or too much.

Review your log weekly with a critical eye. Pretend that it's someone else's training programme you're viewing and that you're checking how effective and safe it is. You may be amazed at the training errors you find. Correct these errors, and you'll become a better runner – and one more likely to stay injury-free.

But if you do get injured...

...come back slowly – much more slowly than you might think.

After a layoff or an injury, your feet and legs, bones and joints are just not ready for any pounding. They have become somewhat soft and lazy, and it takes time to build them to the point at which they can take the forces of running without becoming reinjured.

Furthermore, it's possible that your injury hasn't healed completely. Even though you may not feel any symptoms, the area you hurt will be weaker than it was before your injury and more susceptible to reinjury. If you stress your body too much too soon, the same symptoms are likely to reappear.

Depending on how long your layoff is, and whether or not you are able to do any cross-training to maintain fitness, you might need to begin your return to your running programme with a walk/jog regimen. Although you would rather eat asphalt than be caught walking, do it anyway. You'll still be exercising your muscles without the hard pounding of running.

If you try to take short-cuts or cheat your body's natural timetable, you're asking for trouble. You simply cannot rush your recovery. As you become stronger and start to run regularly, increase your weekly distance by no more than 10 per cent. This rule applies if you're healthy, too.

Finally, be sure to eat well. During a layoff, many runners cut back on their diets to prevent weight gain. This isn't necessary. You need extra nutrients to help your body to mend the injured area and to fuel your training once you renew your running programme. If you do gain a few pounds during your recovery period, they'll just melt away when you begin running again.

So eat. And train wisely. And you'll keep running year after year without injury.