**Training Articles**

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**How to Run Up Steep Trails**

By Adam W. Chase Trail Editor for Running Times and Co-Author of the “Ultimate Guide to Trail Running”, which may be purchased on www.trailrunner.com

Trail runners can learn a valuable lesson from mountain bikers when it comes to climbing: Optimize efficiency by “downshift” for better traction and a more comfortable spin. When the hills get steep, top trail runners alter their stride for the use of small steps and many ultra-distance trail runners find it more efficient to alternate between walking and running, using a long, swinging stride, when they aren’t running. 1. Use a lower gear when you find yourself struggling with a high heart rate or over-exerting the muscles in your legs. A shorter stride enables you to remain relatively light on your feet, allowing for easier clearance of barriers and capricious direction changes to avoid rocks, roots and other obstacles. 2. Engage in power hiking, especially when you are already somewhat spent, the grade is particularly steep, the footing is iffy, or at high altitude. This is often more efficient and even faster than running, giving your heart and lungs a break. 3. Shift from running uphill to walking in a fast, swinging style smoothly, keeping your heart rate steady. Keep in mind, that it is best to deploy a “steady forward progress” strategy until you see the top of a climb when, if you feel strong, you can pick up your cadence and lengthen your stride. 4. Think about your posture. An upright stance is key because it affects breathing, digestion and lower back pain. By staying in an erect position, you will improve traction and push-off while relieving back strain that can be caused by leaning too far forward. 5. Keep your trunk straight to allow for a fuller range of motion in your hip flexors and to open your breathing passages without compressing your digestive tract — which can lead to an upset stomach, especially on longer runs. 6. Look up! Staring at the trail directly beneath your feet can reduce the important flow of oxygen, so be sure to focus uphill. 7. Concentrate on leg motion, and visualize your steady breaths forcing oxygen to the back of your legs, glutes, hamstrings and calves. A corresponding steady arm swing will help you power up the hills and maintain forward momentum. 8. Avoid favoring one leg, especially when leaping up big steps. This can result in disproportionate strength between the legs and a need to stutter-step to time push-offs for the power leg. Alternate using both legs for planting and pushing off in order to remain equally balanced. All of these tactics for better uphill running should be practiced and, if you don’t live near trails that have climbs, you can apply most of these tips to stairs or stadiums, which are reasonable substitutes for hills. During your hill running, don’t forget the mental aspects. Remember to focus on rhythm, tempo, momentum, and form to maintain steady movement. For more information, go to: www.trailrunner.com and [www.runningtimes.com](http://www.runningtimes.com)

**How to Descend Trails**

By Adam W. Chase Trail Editor for Running Times and Co-Author of the “Ultimate Guide to Trail Running”, which may be purchased on www.trailrunner.com

Surprisingly, running downhill on technical trails requires real talent and experience. Those who develop the requisite descending skills can make tremendous gains, saving time and stress on the body. The following steps and tips will help you improve your trail descending abilities so you can look forward to down hill running as a chance to coast and make easy time while enjoying the excitement. 1. Conserve energy and know that it takes less effort to run downhill quickly so you can finish your run more rested than those who are less skilled and use the wrong form on descents. Maintain a steady rhythm without sacrificing flexibility in your cadence, which you can adjust mid-step to leap a trail obstacle, take a stutter step to gain balance, or skip to avoid some bad footing. It is far better to jump over fallen trees, unsteady rocks, or other obstacles than to step on them. 2. Avoid the tendency to lean back in an effort to slow down, or to lean too far forward and over-stride. Keep your body weight centered over your knees with each foot striking on the ball rather than heel. This will give a slightly aggressive forward or downhill lean. 3. Think about your body positioning, balancing your torso evenly over your waist and lower body so that your posture alternates between leaning forward and running in an upright stance. 4. Maintain a relaxed pose with a levity of your arms and elbows up slightly, moving them higher when taking a sharp turn or maneuvering a steep drop. Use your arms to fine tune your balance, like a cat uses its tail. 5. Strike your foot in different places depending on the steepness of the decline. Your feet should be quiet. Those who thunder down the trail end up pounding their bodies cause themselves to suffer sore backs, quadriceps, and possible knee injury. 6. Practice. The more you work on improving your downhill running, the more comfortable you will be on descents, saving your legs for the flats and ascents. 7. Focus your vision well beyond your feet. Look ahead the way mountain bikers and skiers concentrate on where they will be rather than where they are at the moment. Keep the big picture in mind while you scan upcoming trail and terrain features rather than getting bogged down with placing each next step. 8. Employ many little steps to facilitate making minor adjustments to direction and controlling speed. Increasing the number of steps is an efficient way to control your descent pace and prevent joint and impact injuries. It is like putting a car in lower gear instead of riding brakes when driving a steep decline. By increasing foot turnover, you decrease the impulse to lean backward and attempt to brake by running on the heel of your feet. By refraining from heel braking, you will avoid overstressing your hamstrings and tendons. Warning: Using this more aggressive style and posture translates to a faster descent. Be careful because the pace may be more rapid and challenging. Adjust your downhill running form a little at a time, especially if you are new to running quickly downhill or descending on trails with tricky footing. Consider starting by running down smooth, gradual hills before progressing to steep, technical descents. For more information, go to: www.trailrunner.com and [www.runningtimes.com](http://www.runningtimes.com)

**How to Fall When Running Trails**

By Adam W. Chase Trail Editor for Running Times and Co-Author of the “Ultimate Guide to Trail Running”, which may be purchased on [www.trailrunner.com](http://www.trailrunner.com)

Unfortunately, it isn’t always easy to keep your feet on the ground when you are running trails, especially when the terrain is technical, the footing loose, or if you are on slick ice or snow. With the prospect of falling looming heavy, you will benefit from knowing how to fall properly so that you’ll be safe, run with less fear, and limit your exposure to serious injury. 1. Know how best to fall so as to minimize the carnage. Like all things physical, this is a learned skill. Unfortunately, the lessons are taught at the school of hard knocks 2. Try to recover from a loss of balance. Depending on what triggers the fall — catching a toe on a root, slipping on loose rock or ice, or merely losing your concentration and tipping like a klutz — you may be able to recover by re-distributing weight if you can respond quickly enough. 3. Catch yourself with a long stride or lateral lunge, if that will suffice to steady your body. However, sometimes such corrective attempts are not worth the effort because they can cause muscle strain, joint damage, or throw your weight off in the other direction, like a driver who overcompensates. 4. Apply the “stop, drop, and roll” reaction when you can’t prevent your fall. This approach should not be taken when you are on rocky, cactus-infested, or heavily foliated terrain. You should, however, try to cover your head with your arms to reduce the chance of a head injury. Absorb a fall with the greatest available space of soft tissue and body mass. Rolling or sliding is usually the best bet, especially if the alternative is a twisted or torqued ankle, knee, or arm joint. 5. Resist the urge to put your hands out to stop the fall. That leads to broken wrists, which is not too uncommon among trail runners. 6. Relax, as best you can. Try to slow down time and be as resilient and flexible as possible because that will mitigate the damage of the fall. Tips: Practice falling on a grassy hill, sand dune, or snow bank, putting on layers of old sweats for padding as you hone your rolling and sliding skills. If you are prone to ankle problems, wear higher collared shoes, wrap your ankles, or investigate another kind of ankle support. In falling, the goal should be to emerge from the fall without any “real” injury, keeping the damage to a “mere flesh wound” a la Monty Python’s Holy Grail. For more information, go to: www.trailrunner.com and [www.runningtimes.com](http://www.runningtimes.com)

**How to Run on Snowy or Icy Trails**

By Adam W. Chase Trail Editor for Running Times and Co-Author of the “Ultimate Guide to Trail Running”, which may be purchased on www.trailrunner.com

Not all trail runners live in climates cold enough to deal with ice and snow, but most encounter it at some point and can benefit from being more confident on these slippery surfaces. Although most are reticent on snow and ice, by containing our insecurity and relaxing, we are more likely to stay upright. Snow and ice cannot read minds but they wreak havoc on runners who fear them. 1. Relax. Fearful runners run with tense form, lean back, and often resort to jerky, sudden movement in an attempt to adapt to the slick surface. That is just the opposite of what works best for running on snow or ice. 2. Lean forward slightly so that you distribute your body’s weight evenly across your feet. 3. Stay fluid and steady in your stride and lateral movements as this is less likely to cause you to lose traction. 4. Allow your body to flow with a calculated response in the event you start to slip on snow or ice. By relaxing and resisting the impulse to tense up or make sudden movements, which all too often leads to slipping even more, you’ll increase your chances of recovering or, at least, falling more gently and decreasing your likelihood of injury. 5. Enjoy the fact that one of the best benefits of snow is that it makes an excellent cushions if you do fall. 6. Use smaller steps to decrease the chance of slipping. Think about how all-wheel or four-wheel drive cars work on ice and snow and try to mimic that idea by keeping a more constant, even weight-bearing foot strike to reduce loss of traction. Tip: For added traction, many trail runners insert wood screws directly into their outsoles. There are also several other aftermarket solutions to provide grip on ice and snow, many of which attach easily to running shoes. Crampons and snowshoes are a third option. For more information, go to: www.trailrunner.com and [www.runningtimes.com](http://www.runningtimes.com)

**How to Run in Mud**

Skiers use the term “spring conditions” somewhat loosely, referring to thin cover, icy mornings, and slushy afternoons. For trail runners, the term translates into one thing: mud. Spring is when trails become streambeds and havens for shoe-sucking muck that will make any clean carpet shriek. Rain and melting snow overpower thawing soils and, voila; what were once hard, if not icy trails become sludge fests that can be even more slippery than they were when covered by packed snow and ice. The best way to handle muddy trails is to make like a pig, get as dirty as possible early in the run, and stop worrying about trying to stay clean. Soft mud decreases the impact from running, especially on the descents, where the mud can provide a great surface for slowing the pace without stressing your joints. To avoid slipping, shorten your stride, run more upright than normal, and keep your elbows more angled for lateral balance. If you start to slip, try to relax and control the recovery so as not to over-react and fall in the opposite direction. Securely tie your shoes to prevent them from being sucked off in deep mud. If using, the new Teva X-1 Racer, the speed lacing makes it very easy to attain the requisite security. When you can predict that the trail will be muddy, wear older shoes, especially if they have encapsulating collars around the ankles to prevent or limit mud seepage into the shoes. Losing a shoe in deep mud is a humbling experience — you end up kneeling with only a sock on one foot while submerging your arm in deep muck trying to fish out the shoe that was seemingly devoured by the trail. If water is running down the trail, try to run where the water is moving fastest because that tends to be the firmest surface. Faster currents remove most of the sticky sediment, leaving behind gravel and rock. Although you’ll get wet, you greatly reduce the likelihood of getting bogged down by muddier trail edges. This technique is also friendlier to the trail because it decreases the environmental impact of widening the trail, which is what happens when enough wimpy runners try to avoid getting muddy or wet and soon convert single track path into major throughways. Depending on the sensitivity of the region’s trail system, it may be advisable to avoid certain trails during typically muddy times of the year. Assuming some familiarity with the area and its soil makeup, color and texture often indicate the content of mud. Choosing the firmest mud usually provides a relatively steady path through a bog. Shiny mud usually has higher water content, which may mean it is more slippery, and if it is deep it could have greater suction power — like quicksand. If the mud has a high clay content, count on running with heavy feet through the muddy section of the trail, after which you should either scrape the mud off or find a body of water for a cleansing splash and dash.