

**RUNNER'S WORLD**

**THE**

# TRAIL

**RUN  
WILD!**

**STAY OUT OF  
TROUBLE IN  
THE NATURAL  
WORLD!**


**GET  
LOST!**

**24 Inspiring Ways to  
Change Your Terrain**

**GET STRONGER NOW**  
**Tips to Staying on Your Feet**







**"There is nothing quite so gentle, deep, and irrational as our running—and nothing quite so savage, and so wild."**

*—Bernd Heinrich*

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# Trail Magic

Take a break from the world.

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rail runners know that the simple act of leaving the pavement for dirt gives both body and mind a break from the hectic pace and noise of our daily lives. The softer terrain is like a vacation for your joints.

In addition to being easier on your body, trail running strengthens neglected parts and works a wider range of muscles. “The tendons and ligaments in your feet and joints get much more stable because you’re not moving exclusively in a forward plane of motion,” says Timothy Olson, who took second at the 2014 50-K North Face Challenge and is also a massage therapist. “On the trail, you’re moving from side to side and engaging muscles you don’t use commonly on

the road.”

Even though trail running is both easier on your joints and better for building muscle, it’s also something more. To go running on a trail—even a rail-trail but especially a twisty snake of single-track—is to begin an act of separation of mind from body. It’s impossible to obsess about the distance covered, or what remains, when you’re so intuitively connected to the surroundings. Because if you’re not, you’ll hurt yourself—and because what surrounds you is so beautiful. In place of smog and fumes, you smell flowers, moss, and clean air. In place of taxi horns, you hear the chirp of birds.

“Trails offer peace, quiet, and amazing adventure. They make running unbelievably fun,” says Olson. “And they make you feel extremely alive.”



# The Trail Bucket List

Two dozen amazing destinations that deserve your consideration.





## 1 Lower Nanamocomuck Trail

### NORTH CONWAY, NH

Two hours north of Boston, this classic New England backcountry trail begins, appropriately, at a covered bridge. This 7.5-mile point-to-point trail starts as a gravel road and eventually merges into a single-track that follows the Swift River with minimal elevation. [trailink.com/trail/nanamocomuck-trail](http://trailink.com/trail/nanamocomuck-trail)

## 2 The Long Trail

### WINHALL, VT

The 273-mile route runs the length of Vermont, crossing the state's highest peaks and densest forests as it follows the main ridge of the Green Mountains. Runners beware: Just about any run on the Long Trail will require steep uphill and abrupt downhill. [downthetrail.com/hiking-the-long-trail-vermont/cogdon-shelter](http://downthetrail.com/hiking-the-long-trail-vermont/cogdon-shelter)

## 3 Finger Lakes Trail System

### HECTOR, NY

Including the main Finger Lakes Trail as well as dozens of spur and loop trails, this system across south-central New York offers more than 950 miles of options. Arguably the best terrain for runners can be found in the 16,000-acre Finger Lakes National Forest, nestled between Seneca and Cayuga lakes. [fltconference.org/trail](http://fltconference.org/trail)

## 4 Laurel Highlands National Scenic Trail

### OHIOPILE, PA

This 70-mile, continuous dirt footpath stretches across the Laurel Ridge in southwestern Pennsylvania. As it winds from Ohiopyle to Seward, the trail occasionally emerges from the forest to excellent views of the twisting Youghiogheny River. [dcnr.state.pa.us/forestry/recreation/hiking/nationalscenic/laurelhighlandstrail](http://dcnr.state.pa.us/forestry/recreation/hiking/nationalscenic/laurelhighlandstrail)





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### Shut-In Trail

#### ASHEVILLE, NC

Industrialist George Vanderbilt built this 18-mile trail in the late 1890s as a means to link his hunting lodge below Mt. Pisgah to his famous Biltmore Estate in Asheville. Now it's a test for passionate off-road runners, with 3,000 feet of climbing on rock-strewn technical single-track to a parking area just below Mt. Pisgah. [hikewnc.info/trailheads/pisgah-national-forest/long-distance/shut-in-trail/](http://hikewnc.info/trailheads/pisgah-national-forest/long-distance/shut-in-trail/)

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### Appalachian Trail

#### SPRINGER MOUNTAIN, GA, TO MOUNT KATAHDIN, ME

Spanning 2,179 miles and passing through 14 states, the Appalachian National Scenic Trail is perhaps America's most celebrated trail. It's easily accessible with great running sections near Knoxville, TN; Roanoke, VA; Harper's Ferry, WV; and Harrisburg, PA. [appalachiantrail.org](http://appalachiantrail.org)

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### Alafia River State Park

#### BRANDON, FL

Set on the site of a former phosphate strip-mining operation, the park offers some of Florida's most diverse trail topography. The rolling, multiple-loop trails weave around swamps, ponds, hills, and rock formations on shady single-track trails that include almost a dozen creek crossings adjacent to the South Prong of the Alafia River.

[floridastateparks.org/park/Alafia-River](http://floridastateparks.org/park/Alafia-River)



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### Double Oak Trail

#### PELHAM, AL

This 17-mile rolling single-track loop in Alabama's largest state park winds around a large lake and through lush green hardwood valleys, with several punchy climbs that ascend to pine-studded ridges. It's a tough but rewarding run. [bump.org/trails/oakmountain/](http://bump.org/trails/oakmountain/)



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### Cumberland Trail CHATTANOOGA, TN

The trail traverses a series of high ridges and deep gorges across the eastern third of Tennessee on the Cumberland Plateau. The 10.2-mile Mullens Cove Loop Trail just outside Chattanooga offers some of the best running. [cumberlandtrail.org](http://cumberlandtrail.org)

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### Potawatomi Trail PINCKNEY, MI

This 17.5-mile, mostly single-track loop twists and turns around kettle lakes and bogs and moves between lush, forested lowlands and along the high crests of glacial-formed ridges. Known locally as the “Poto,” the hard-packed dirt trail has plenty of technical terrain features, including creek crossings and steep climbs and descents. [mtbproject.com/trail/1020978](http://mtbproject.com/trail/1020978)

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### Palos/Sag Valley Trail Systems PALOS PARK, IL

A hidden gem on the outskirts of Chicago, these parks offer more than 30 miles of dirt trails through thick, deciduous forests and deep ravines, past wetland lakes and marshes, and across wide-open meadows. [fpdcc.com/preserves-and-trails/trail-descriptions/](http://fpdcc.com/preserves-and-trails/trail-descriptions/)



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### Ice Age National Scenic Trail LAGRANGE, WI

This 1,200-mile route highlights Wisconsin’s geological features created by ancient glaciers. Some of the best places for runs are through the rolling terrain of the Kettle Moraine State Forest near LaGrange, where you’ll find kettles left by long-ago ice floes. [iceagetrail.org](http://iceagetrail.org)



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### Berryman Trail

POTOSI, MO

Situated in the heart of the Mark Twain National Forest, this 24-mile rocky single-track winds through the low shoulders of the Ozark Mountains. It traverses classic lower Midwestern forests, alternating between shaded, woodsy creek bottoms and windy ridgetops.

[imba.com/epics/berryman-trail](http://imba.com/epics/berryman-trail)

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### Palo Duro Canyon State Park

CANYON, TX

Known as the Grand Canyon of Texas, Palo Duro is the second-largest canyon in the U.S. The 11-mile Givens, Spicer & Lowry Trail gives a sampling of its awe-inspiring grandeur with deep canyons, gnarled red rock buttes and spires, and meadows teeming with cacti and juniper and mesquite trees.

[tpwd.texas.gov/state-parks/palo-duro-canyon](http://tpwd.texas.gov/state-parks/palo-duro-canyon)

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### Dale Ball Trails

SANTA FE, NM

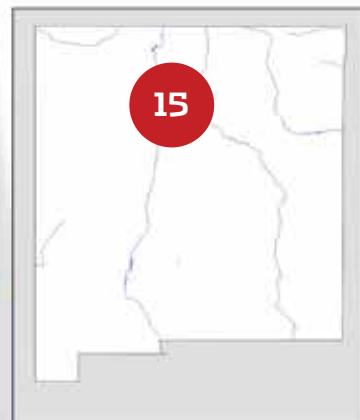
The Dale Ball Trails include 30 miles of looped single-track routes lined with juniper, pinion pine, and mountain cedar trees in the rolling foothills outside the artists' enclave of Santa Fe. [sfct.org/dale-ball-trails](http://sfct.org/dale-ball-trails)

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### Maah Daah Hey Trail

MEDORA, ND

With its colorful rock formations, scenic big sky vistas, and seemingly endless grasslands, the Maah Daah Hey is a geological timepiece in the rugged North Dakota Badlands. This former Native American trade route connects the north and south units of Theodore Roosevelt National Park and, at 96 miles, is one of the longest single-track trails in the U.S. [mdhta.com](http://mdhta.com)







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### Mesa Trail

BOULDER, CO

This 7-mile mildly technical single-track route, connecting a network of trails beneath and around the iconic Flatirons mountain facades, can lead to rugged runs to the top of 8,144-foot Green Mountain or 8,461-foot Bear Peak. [bouldercoloradohiking.com/portfolio/full-mesa-trail](http://bouldercoloradohiking.com/portfolio/full-mesa-trail)

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### Colorado Trail

DENVER TO DURANGO, CO

There's no better way to experience the Rocky Mountains than by running a few sections of the Colorado Trail. It starts on the fringe of Denver and winds 483 miles in a southwesterly direction to Durango through eight mountain ranges, seven national forests, and six wilderness areas. [mtbproject.com/trail/4922539](http://mtbproject.com/trail/4922539)

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### Poison Spider Mesa

MOAB, UT

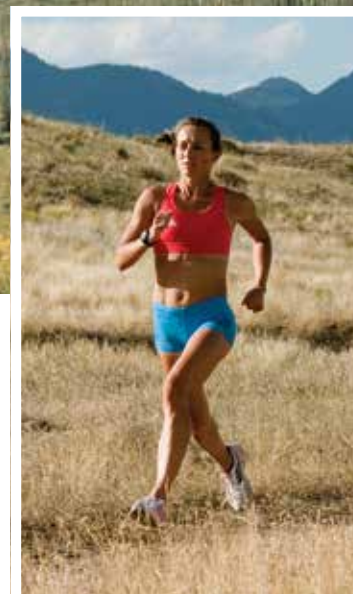
Moab is known more as a mountain biking mecca, but the region's slick-rock trails make it just as much a trail runner's paradise. The 13-mile loop that encompasses Poison Spider Mesa has a variety of technical features plus amazing vistas of jagged red rock topography in all directions. [everytrail.com/guide/poison-spider-mesa-4x4-trail-moab-ut](http://everytrail.com/guide/poison-spider-mesa-4x4-trail-moab-ut)

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### El Moro Canyon

LAGUNA BEACH, CA

Escaping the gridlock of Los Angeles and its environs can be a challenge, and that's exactly why Crystal Cove State Park, home to this trail, is such a cherished refuge. The El Moro Canyon Loop is an 8.5-mile route that snakes through canyons and along the ridgetops of the San Joaquin Hills, which rise 1,000 feet from the Pacific coastline. [crystalcovestatepark.com](http://crystalcovestatepark.com)

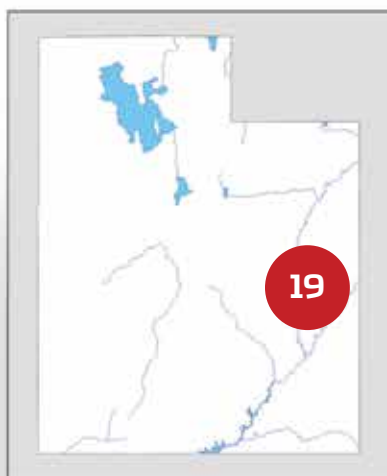
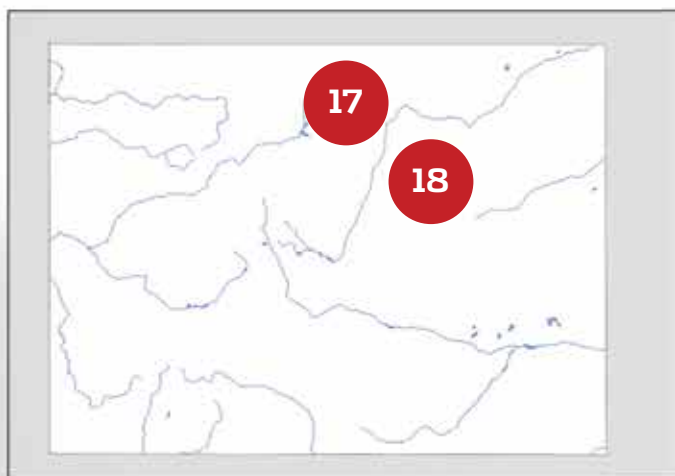


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### John Muir Wilderness

BISHOP, CA

The tiny Sierra settlement of Bishop, nestled high in Sierra Nevada, offers remote access to the 212-mile John Muir Trail, which runs from Yosemite National Park to the 14,505-foot summit of Mt. Whitney. A run here is rewarded with a bounty of wildflowers and tranquil high-alpine lakes. [sierrawild.gov/wilderness/john-muir](http://sierrawild.gov/wilderness/john-muir)



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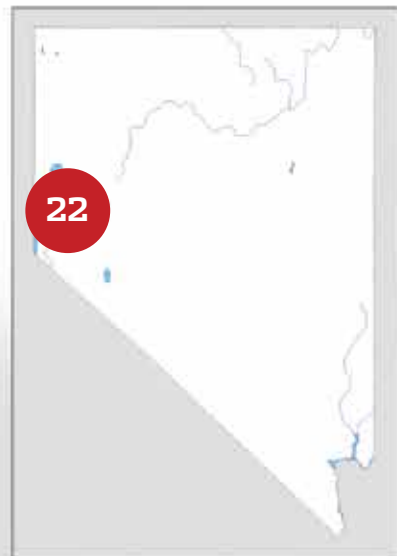


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### Tahoe Rim Trail

**INCLINE VILLAGE, NV**

This 165-mile trail passes through two states, three national forests, and three wilderness areas as it circumnavigates Lake Tahoe, the largest alpine lake in North America. The trail is broken into eight segments, ranging from roughly 12 to 33 miles, with one of the best runs being the 15.3-mile section from Big Meadow to Echo Summit. [tahoerimtrail.org](http://tahoerimtrail.org)



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### McKenzie River Trail

**EUGENE, OR**

This twisty, 27-mile trail winds through ancient forestland in the heart of the Cascade Mountains. The route includes smooth single-track trails, log bridges, hairpin turns, and steep climbs and descents. [mckenzievertrail.com](http://mckenzievertrail.com)

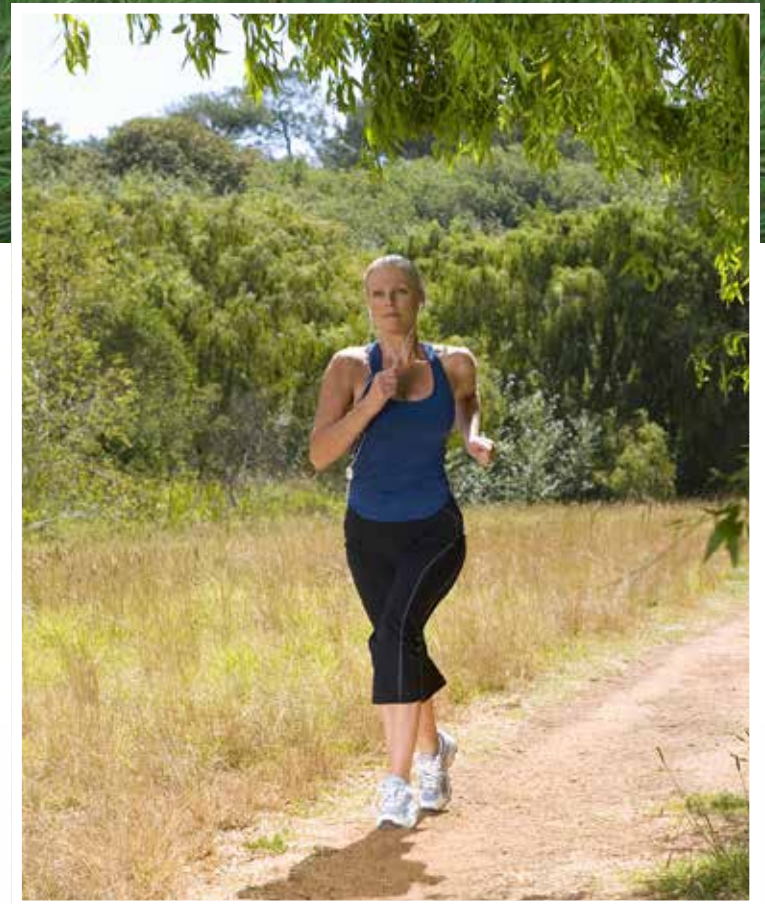


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### Cougar Mountain Regional Wildland Park

**ISSAQUAH, WA**

This park on the outskirts of Seattle boasts 36 miles of soft, rolling trails that meander through the lowest and westernmost of the “Issaquah Alps” highlands. Starting from one of the four main trailheads, you can link loops to create a run of just about any length and difficulty. [kingcounty.gov/recreation/parks/inventory/cougar](http://kingcounty.gov/recreation/parks/inventory/cougar)







**"There are few instincts more natural than the body in full motion as it races across the fields or through the trees."**

*—Neal Bascomb*





# Happy Trails

## Keep honing your off-road skills.

**W**hether you like to run on flat, worn trail paths or tackle more challenging terrain, these trail tips are a good guide to help keep you sure-footed on any run.

### Take Quick, Small Steps

A brisk cadence—around 90 steps a minute—means your feet will land under your center of gravity, providing a stable landing. “You don’t want to overstride on the trail,” says Joe Azze, owner of Mountain Peak Fitness in Slootsburg, NY. “That’s how you get off balance and lose control.” In addition, make a conscious effort to pick up your feet—something you don’t really have to do on the road—so you’ll step over any small debris on the trail that could trip you up.

### Pace the Uphill

- Slow your pace as you head into the climb. “If you get to the climb and you’re already winded, your form suffers,” says Azze.
- Keep your stride short and your foot strikes light to climb with as little effort as possible.
- Concentrate on maintaining a strong core and standing tall. “I really think about good posture,” says

experienced trail runner Timothy Olson. “That way, I don’t compromise my breathing.”

- Your gaze should be forward, looking 5 or so feet up the incline.
- Keep your arm pump compact and quick, just like in road running.

### Control the Downhill

- If the descent is right after a tough climb, stop for a minute and recover before you head down, so you feel in control.
- On moderate downhills, lean slightly into the hill. “Leaning back puts on your brakes and wears out your quads,” says Joelle Vaught, an ultrarunner from Boise, ID, who came in first at the Wilson Creek Frozen 50-K. If the descent is too steep to lean into, stay as relaxed as you can and make a zigzag pattern with your feet instead of heading straight down.
- Let momentum be your friend, but stay in control. “Look at least 5 feet ahead, where you want to go, not directly down at your steps,” says Lisa Smith-Batchen, an accomplished ultrarunner who owns Dreamchasers Outdoor Adventures in Driggs, ID.
- Make sure your core is working. “The stability it can give you is key,” says Azze.

• Don’t be afraid to look silly. Let your arms flail a bit to help with balance.

• If you can, follow an experienced trail runner down the hill, placing your feet where his or hers go.

### Negotiate Rocky, Root-Filled Terrain

- Keep your gaze ahead of you, not at what’s underneath you.
- Stay light on your feet. “Pretend like you’re running through an agility ladder at the gym,” says Azze. “That’s how small and quick your steps should be.”
- Aim to land on dirt rather than rocks, and flatter rocks over more oddly shaped ones.
- If necessary, walk through the stretch first to get a feel for it. Then go over it again, with a slightly faster pace. “Practice it like you would any other skill,” says Azze. “You’ll build your technical skills as well as your confidence.”

### Don’t Run to the Point of Fatigue

When you don’t heed the go-by-time rule and stay out longer than your body can handle, you’re more prone to falling or twisting an ankle. (This is the same reason most





cooler temps, however, beware of wet feet, which can become a problem if you're not close to the car or wearing waterproof shoes.

### Prep for Falls

"Everybody is going to fall at least once, so just be mentally prepared for it," says Azze of Mountain Peak Fitness, who notes that the best way to take a fall is to tuck and roll. Unless you're going to hit the dirt face first, try to resist the urge to put out your hands. "You can break your wrist or elbow," he says. That said, if you happen to be carrying a handheld water bottle, then it can provide a

accidents on a ski hill happen at the end of the day.) As you get tired, your upper body collapses, your legs lose their snap, and you don't pick up your feet. The result? Rocks and roots are more menacing.

### Leap the Streams

- If the stream is too wide to leap across, stop and find the safest route, like a series of rocks or a log. Test the stability of your stepping stones before committing to them.
- If the stream is raging, find a long stick to use for balance, and face upstream against the current as you slowly make your way across.
- In summer, don't sweat it if your feet get wet; it'll likely feel good. In

good cushion between you and the ground. One key to preventing falls: solid core strength. The stronger your core, the more stable you are. "A strong core helps you stay upright if you trip or roll an ankle," explains Azze.

### Keep Getting Stronger

There's more to training than just running hill repeats. The workout below helps cultivate proprioception, or your awareness of your own body relative to its surroundings, so important when negotiating rocks, roots, mud, and sudden terrain changes. Do the exercises twice a week, and you'll deliver your best performance yet.

### BALANCE DRILLS

#### Balancing on One Leg

Stand upright on one foot. Slightly bend the hip, knee, and ankle of the planted leg. Keep your balance without having to catch yourself with your other leg. Build up to a minute or more. To make this exercise more difficult, try it with your eyes closed. Beginning in week 3, start doing this exercise on a Bosu ball.

#### One-Legged Squats

Put all your weight on one leg and, with the other leg behind you for balance and support, lower your body until the knee of your planted leg reaches roughly 90 degrees; then slowly come back up. Try 1 to 3 sets of 6 to 12 reps. Once this feels comfortable, try the squat with your eyes closed. Beginning in week 3, start doing this exercise on a Bosu ball.

### QUADS AND GLUTES

#### Straight Leg Lifts

This exercise assists in retraining the large quad muscle (the VMO, or *vastus medialis oblique*) to fire correctly. Lie on your back with the working leg straight and the non-exercising leg bent near 90 degrees. Lift the working leg 12 to 18 inches and hold for 5 seconds with the toe pointed toward your head and rotated away from the center of your body. The burn should be felt in the large quad muscle. Try 3 to 5 sets of 10 reps with each leg. As you progress, you can add ankle weights for more resistance.

#### Single-Leg Bridge

Start by lying on your back with your arms at your sides. With one knee bent 90 degrees and the other

straight, raise your hips off the ground. A straight line should follow from the shoulders to the hip, knee, and ankle of the extended leg. Hold for 3 seconds, lower, and repeat. Work both sides. Try completing 1 set of 10 reps and gradually work up to multiple sets of 10 to 20 reps with each leg.

#### Hip Abduction

Lie on the ground on one side with the arm closest to the ground extended and legs straight.

Use the other arm to brace your body. Lift the upper leg in a scissor-like motion. Hold for 3 seconds and lower. Try completing 1 set of 10 reps and gradually work up to multiple sets of 10 to 20 reps.

#### Lunges

Looking straight ahead, with hands on hips, take a big step forward, bend the knee, and lower your body so the front leg is bent at a 90-degree angle. Then slowly push back up and step back to the original position. Start with 6 to 8 reps on each side.

### ANKLES AND FEET

#### Alphabet

Write the alphabet with your toes.

#### Ankle Circles

Make 5 slow clockwise, then counterclockwise, turns with each foot. Repeat 5 times.

#### Towel Pickups

Pick up a towel with your toes, drop, and repeat for 1 minute.

### LOWER BACK

#### Back Extensions

Lie facedown on the floor and place your hands behind your head. Contract your abs and keep them contracted throughout the movement. Squeeze your back to lift your chest a few inches off the floor. Lower and repeat for 1 to 3 sets of 8 to 12 reps. To increase the difficulty, lift your legs off the floor at the same time you lift your chest.

## Trail Gear Checklist

- Definitely wear trail-running shoes designed to grip the terrain and protect you from injury and the elements.
- If you're headed to higher elevations, be sure to take a light jacket. At higher altitudes, the weather can change in a matter of moments.
- Carry at least one gel, a fully charged phone, your ID, a map, and a headlamp if you'll be running at or near dark.
- Wear a hat or sunglasses to protect your eyes from overhead branches you might not see.
- Bring water. The ratio of one water bottle per hour of running should be ample; carry more in warmer temps.
- High-cut socks cover your ankles and keep debris out.

# Into the Wild

Even experienced trail runners can get into trouble on unknown terrain. Here are reminders for how to stay safe while respecting the natural world.

## 1. Don't Make a Stink

Human feces. A topic that makes us all squirm, but a reality that can't be ignored. In a perfect world, we'd "go" before we hit the trails. Unfortunately, our internal systems don't always cooperate. John Medinger, founder and race director of the Quad Dipsea and Lake Sonoma 50 and a board member of the Western States 100-Mile Endurance Run, knows just how difficult it is to anticipate runners' needs. "We have porta-potties at the start of my races and at some aid stations along the way, but these are typically 5 to 7 miles apart," he says. "But when you gotta go, you gotta go."

Mike Spinnler is the race director for the JFK 50 Mile, a trail race with more than 3,000 participants on the outskirts of the nation's capital, putting it constantly under the scrutiny of the National Park Service. He agrees with Medinger but adds, "We inform our par-

ticipants to—if at all possible—use the portable units. We also ask them, if toilets aren't nearby, [to] go at least 30 feet or more off the trail and cover up what they leave behind."

### Waste Management

If the urge strikes and restrooms aren't available during your next race or training run, here's how to handle your waste:

**Get out of sight.** Use vegetation or terrain to hide yourself. This will ensure that you deposit waste where others can't see or smell it.

"Everybody poops, but nobody wants to look at it," Medinger says.

**Use the heel of your shoe, a rock, or a stick to dig a hole.** Six inches is optimal. Make sure you're at least 200 feet (more than half a football field) from the nearest water source.

**Don't burn used toilet paper.** Depending on the rules for the area you're running in, bury it in the hole or

pack it out. If you don't have tissue, use vegetation that you can confidently identify. (Be on the lookout for poison oak, ivy, and sumac.) Smooth stones and sticks work, too. Take care to bury those as well.

**Urinate on rocks or bare ground** so absorption is quick and unnoticeable and so fragile plants, such as wildflowers and mosses, aren't negatively impacted.

**Use hand sanitizer as soon as possible.** Always pack out personal hygiene products.

## 2. Keep Technology in Its Place

Just as the sport of trail running has grown, so has the use and availability of new technologies. Smartphones, personal listening devices, and GPS systems, if used appropriately, can enhance the outdoor experience and provide a measure of safety.





## Phones

Smartphones can be used to document your journey by photo, voice, or video. However, that's where the line should be drawn, except in dire emergencies. Don't rely on your phone as a dependable piece of backcountry equipment, because it rarely gets reception. Make sure you attend any prerace briefings. This is when updates are announced and course marking is displayed. Carry a map or familiarize yourself with your route.

## Music

Listening to music can be a welcome distraction, but make sure the rules allow it. And if you're racing

on a single-track, make sure you can hear other runners approaching. "We disallow personal listening devices. The Appalachian Trail has dangerous footing and is a single-track trail," Spinnler says. "Anyone caught using them is disqualified."

If you run an event that permits the use of these devices, act prudently. Karl Meltzer, trail running coach and race director for Utah's Speedgoat 50-K who loves his music and even avoids the races that have no-headphone policies, says, "Crank up the tunes, but use respect by removing your headphones at aid stations and in places where danger is possible, where there is possible rock fall or busy trail traffic."

## GPS

Depending on its accuracy and functionality, a GPS unit can keep track of your mileage. Some devices can also provide rudimentary maps with your estimated location. Be aware that GPS units have limited battery life and can lose reception, rendering them inaccurate on twisty trails, under tree canopies, and in deep ravines.

There's no better place to fully disconnect. "Once in a while, it's good to run without the watch or phone, just to totally let go of that attachment to technology," says Sam Fiandaca, the owner of Brazen Racing, an event company that organizes trail races in the Bay Area. "You can certainly enjoy your run a little more that way."

## 3. Stay on the Path

Though there are a few races that allow it, like the Dipsea in Northern California, shortcutting is considered unethical and can be ecologically detrimental. The temptation is great to cut to avoid curves, switchbacks, or muddy areas in the trail; however, those turns were constructed to eliminate erosion, protect vegetation, and keep soil on the trail. Skipping out on those turns makes you a race-day cheat, converts specifically engineered single-track to wider and rutted roads, makes you an accessory to environmental damage (which can carry a fine of up to \$5,000 and/or 6 months in jail in many national parks), and could give you a wicked case of poison oak.

"The environmental impact of course-cutting is detrimental,

it's a safety hazard, and it creates a tremendous amount of displeasure with the park's management, which, in turn, impacts my ability to hold the race the following year," Fiandaca says.

Meltzer has had problems with racers using alternate routes on the fragile alpine course. He goes out of his way to ensure that participants know the rules. "Before the race, I make everyone say, 'I will not cut switchbacks.' I make them say it twice so they remember it," Meltzer says. "We use binoculars to watch runners and police the course as best as we can. We take this very seriously."

## 4. Respect the Wildlife

Spend enough time on the trails, and you're going to have an animal sighting. Most likely, it'll just be a deer, but it could be something more daunting, like a bear, moose, cougar, or snake. The good news is, most animals are quick to get away from you.

Here are some commonsense tips.

- Make noise, especially in bear country. "You can even carry some tiny jingle bells," says Rob Shoaf, owner of Epic Running Camps in Steamboat Springs, CO.
- In remote areas or in places where animals are common, don't run at dusk, when the dimming light can make it difficult for both you and the varmints to see clearly.
- If you do encounter an animal, the first thing to do is stop running, says Dale Oberlag, a district wildlife biologist with the U.S. Forest Ser-

vice in Fort Collins, CO. "Don't run, because that could trigger a chase instinct. Give them space so they're not threatened." With black bears and mountain lions, talk loudly and make yourself appear large by raising your arms over your head or waving a shirt or jacket in the air. If a mountain lion or black bear approaches, maintain eye contact, do not crouch, and prepare to fight back with rocks or branches or any other impromptu weapon—even your hydration pack. If attacked, fight back.

- Be especially careful if you come across babies or young animals. "Stop running, retreat quietly, or take an alternate route if you can," says Medinger.
- If you're cornered or bluff-charged by a grizzly bear, lie down, and play dead. That is often enough to convince the grizzly that you're not a threat, Oberlag says. But the best defense is preparation: Don't go in grizzly bear country alone, and consider carrying a can of pepper spray.

The exception: If a moose charges, run. Do not hold your ground.

- Snakes will defend themselves if threatened, so give them a wide berth. If bitten by a rattlesnake, keep the wounded region low and still, says Judy Alsop, managing director of the Sacramento Division of California Poison Control System. Don't apply a tourniquet, don't try to suck the venom out of the wound, and don't attempt to cut it out with a knife. Most important, stay calm, don't run around, and try to get medical attention immediately.



## 5. Leave No Trace

Unlike the common practice at large races in the city, food wrappers, cups, and other trash, as well as peels and rinds (which may take years to biodegrade in some ecosystems), cannot be dropped on the ground for somebody else to clean up.

“We do have many participants whose only experience is with the ‘big-city road race,’ where it’s

OK for runners to throw their cups on the ground,” Fiandaca says. “To combat that, we try our best to push the fact that we’re in a park and littering is unacceptable. We cover this in the prerace briefing and literature, and add signage at aid stations as a reminder. I think if everyone gets behind that, then there will be little to no mess to clean up.”

Litter attracts wildlife and ru-

ins the experience of the runner or hiker behind you. It could also cost you a race. “We see somebody dropping trash on the course outside the aid station areas, and we disqualify them,” Spinnler says.

Whether you’re running first or last, pick up any garbage you find and dispose of it at the next aid station or trash can. “When I’m on the trails,” Fiandaca says, “I try to either carry a Ziploc baggie to put trash in

or I just designate a trash pocket in my water bottle or on my shorts.”

## 6. Pay It Forward

Local municipalities are mandated to maintain the streets around our homes; however, most trail systems aren’t allotted similar support. “The trails we love are in our hands, literally, and their future depends on our stewardship,” says Matthew Nelson, the executive director for the Arizona Trail Association, an organization that not only stewards the 800-plus-mile Mexico to Utah pathway, but also supports several running events that take place on the trail. “Each year, federal agencies have less money for trail development and maintenance, so it’s up to people who use the trails to care for them,” he says.

Volunteers do the majority of the upkeep by repairing and installing signage, removing downed trees, de-rocking tread, and trimming overgrowth. Help preserve your favorite trails by setting aside one day a year to join a trail work party—you can find one by searching for your local or national trail organizations. “The next time you’re running down a trail you helped build or maintain, you’ll feel a powerful sense of ownership that will stick with you forever,” Nelson says.

Every sport has a tacit code of conduct and, though no definitive manual exists, trail running is no exception. The trails are an attractive place to run because of the peaceful setting they provide. Never forget that we are only visitors and it’s our responsibility to keep them

pristine by treading lightly while we’re out there.

## 7. Don’t Get Lost

Certainly there’s a better chance of getting lost on the trails than on the road, but there are plenty of precautionary measures you can take to make sure you get back to the trailhead when you expect to, especially when you’re heading out on an unfamiliar trail.

### Don’t Run Alone

Go with a knowledgeable friend or group. If that’s impossible, pick up a trail map at a running store. “Learn to read the topography, then carry it when you run,” says Joe Azze, owner of Mountain Peak Fitness in Slootsburg, NY. “Figure out if the trail is along a ridgeline or next to a stream; that will help you stay oriented.”

### Use GPS

A GPS can provide backup. Before you head out, plot out the course on your computer, then follow the route when you head out. But don’t rely solely on a GPS, as a tree canopy can weaken a signal and batteries can wear out.

### Go Out and Back

Run straight, then turn and run back. This offers a smaller chance of getting mixed up than a loop does.

### Keep a Lookout

Look for landmarks near the trailhead. Is there a huge pine that sticks out? A stream nearby?





# Ticked Off

**L**yme disease is on the rise in the United States. Black-legged ticks pick up the *Borrelia* bacteria from birds as well as mice and other small mammals they feed on, and then they pass the germs along when they feed on us.

Because Lyme symptoms tend to come on gradually, it's easy to mistake the early signs—fatigue, muscle aches, joint pain—for the flu or even for simple overtraining. If you delay treatment, you can experience serious symptoms, including high fevers, migraines, dizziness, difficulty concentrating, stiff joints, and poor coordination.

Perry Louis Fields, a former elite middle-distance track athlete, made that assumption. “I felt run down, but I thought it was because I was training hard.” That is until Fields was in the second lap of the 800 meters

at the 2005 USA Outdoor Championships and her legs went numb. “That’s when I knew something was really wrong,” says Fields, who wrote a book, *Tick Slayer*, about her 5-year battle with the disease.

Here’s how to lower your risk of a tick bite on outdoor runs.

- **Wear repellent.** If you live in a high-risk area (Northeast, Mid-Atlantic, or Midwest), spray your shoes and running shorts with clothing-specific repellents containing permethrin. A coating of permethrin is effective for a month on your shoes and through 70 washings on your clothes.
- **Stay centered.** Run in the middle of a track to avoid tall grass where ticks like to hide.
- **Do body checks.** Strip and check your body for ticks as soon as you get home. Quick tick removal will lower your

risk of infection. Experts estimate that a tick must be attached for at least 24 to 48 hours to transmit the bacteria. Pay particular attention to underarms, around the ears, inside the belly button, the back of the knees, and the head, groin, and waistline. Look for any freckles (ticks are that small) that seem unusual.

- **Pull it out slowly.** If you do find a tick, grasp it as close to the skin as possible with pointed tweezers, and pull upward with steady pressure. Avoid twisting or jerking it, which could cause part of the tick to break off in the skin. If the tick has been attached to your skin for a day or more, you have a high risk of contracting Lyme disease, so ask your doctor for a dose of the antibiotic doxycycline as a proactive measure. If the tick was attached for less than a day, your risk of being infected is lower.

If you get disoriented, use those features to get reoriented.

## Mark the Trail

“When I’m running with friends, we’ll make arrows with sticks or write our initials in the dirt so we all go the same way,” says experienced trail runner Timothy Olson.

If you’re solo and prone to not remembering if you should take a right or left, leave your own version of bread crumbs.

## Turn and Take In the View

Regularly turn around and look at your surroundings. “Remember what the terrain looks like, so you

know you’re going the right way on the return,” says Azze.

## Leave Word

Tell somebody which trail you’ll be on and when you expect to be back. An extra step: Text or call your contact when you head out and when you return.







# Trail Zen

A runner finds his way.

**F**rank Bures grew up in a small town on the Mississippi River, and that was where he discovered he was good at running. He ran cross-country in high school and was recruited by a college, doing so well that in his second year he expected to be the top runner. But he began to experience shooting pains in his knees that wouldn't go away, no matter how often he iced or rested. Eventually, he had no choice but to hang up his spikes.

Then one day Bures picked up Christopher McDougall's book *Born to Run* and found it impossible to put down. He started to wonder if maybe he'd be able to run again after all.

He started out slowly, never sure when he was going to feel that dreaded knee pain again. He avoided the pavement and ran on trails where he could find them: along the lakeshores near his house; along the Mississippi River; next to a nearby creek that runs to a 50-foot waterfall. "One day I ran out onto an island where two wide rivers come

together," Bures says. "I saw wild turkeys, deer, eagles, and at the very tip of the island, which local tribes once called the 'center of the world,' I sat and watched the sun come up over the water."

He kept on running. He got stronger. He went faster. He ran farther. The pain he waited for in his knees never came. He even began to think about racing again. "I knew I wasn't going to break any records," Bures says. "But it was in my blood and I knew I would have to find something to measure my progress."

Then he received a mailing from his old college announcing a homecoming "fun run" on the same course where his running days had ended. He showed up bright and early on race day: It was October, and there was frost on the grass and a nip in the air. The runners took their mark and the athletic director yelled, "Go!"

Bures felt lighter and freer than he had in years. "Around the first corner, I was surprised to find myself in the first pack. The leaders were within sight, and I


wondered if I was within striking distance of a win," he says.

He started moving up the ranks. Then, about two-thirds of the way through, he hit a point that he hadn't hit for a long time, where energy runs down and meets pain on the way up. It was a wall Bures knew how to break through.

But as he continued to run, something unexpected happened. "Looking across the field, I realized that things had changed, that I had changed," Bures says. "Years ago, I ran to win, to push myself to the very edge of possibility. But today, I wouldn't do that. Maybe it's that I was old. Or maybe I was just a different kind of runner now—running not to live forever, but to live to the fullest."

So Bures relaxed. He felt the ground beneath his feet and took deep breaths. He decided to enjoy the fact that he was running at all. He says, "As I came down the final stretch, I looked at my time, but I felt detached from it, knowing that even if it told me how fast I had gone, it could not say anything about how far I had come."





**“The desire to run comes from deep within us—from the unconscious, the instinctive, the intuitive.”**

—George Sheehan

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