How to really sh-t in the WOODS

And 24 other things you should know out there

Okay, so you've been hiking, biking, paddling and camping for years. And by now, you pretty much know how to do it all, right? Well, we doubt it. The truth is there are lots of things that most outdoor people don't really do properly. Like paddle a canoe straight. Or pack a backpack. Or even tie a decent knot, for God's sake. So forget everything you think you know. And let the learning—or relearning—begin.



How to pack a backpack

How well your backpack carries is largely determined by how you pack it. Even the best pack will hang off your back like a dead sloth if you pack it poorly. On the other hand, a well-packed load will sit snug against your back and keep you balanced over your feet.

1. Generally, pack lightweight items such as clothing and sleeping bags at the bottom and heavier items at the top.

- 2. Don't just toss stuff in haphazardly. Tuck the heaviest items—food, fuel and water, for example—close to your back. This will transfer weight to your hip belt and away from your shoulder straps.
- 3. Even though you want most clothing at the bottom, keep a few key items—gloves, toque, an extra layer and a rain jacket—near the top for easy access.
- 4. Packing the tent fly, body and poles separately takes up less space and allows for more creative packing. (It also lets you divide the weight among the members of your group.)
- Keep bottles and fuel containers upright (just in case).
- 6. If you plan on scrambling or climbing, pack heavy items more towards the middle of the pack to lower your centre of gravity, and avoid overstuffing

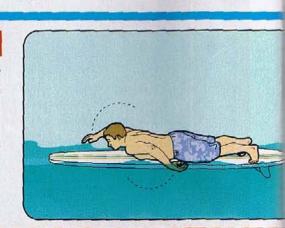
the lid, so you'll be able to look up unhindered.

- Fit your sleeping pad inside the pack, if you can. It will be less likely to get ripped or punctured.
- 8. If you must hang stuff off the outside, make sure everything is well secured and lashed down so it doesn't swing and throw you off balance at an inopportune moment.

-Kevin Arnold

How to stand up on a surfboard

Anyone who's tried to surf knows that the hardest part is just standing up. Follow these basic steps and you'll be hanging 10 before you know it: 1. Lie face-down with your feet on the board, toes curled under as if you're ready to do a push-up [assuming you're riding a longboard, and you should be if you're a beginner]. Then paddle for the wave until you feel it pull your board. 2. When you're ready to stand, place your hands under your shoulders flat on the board. Don't grab the rails (edges) of the board—that makes the board less stable. 3. In one smooth, controlled motion, push up with your arms, pull your forward knee up, and plant your foot in the middle of the board. 4. Release your hands and swivel your feet into an athletic crouch, with your weight evenly over both feet and your feet perpendicular to the board. 5. Keep your knees bent, your eyes forward, and your hands out to your sides for balance. You're up. —KA



How to purify water

Treating water in the backcountry is easy enough if you have a filter, pump or chemical treatment with you. But what if you get caught without any of these? You can still reduce your risk of bringing home a gastrointestinal delight. Here's how:



 If you have a stove for cooking, the best way is to bring water to a boil.

Recent research has shown that a one-minute rolling boil is enough to kill everything.



2. No stove? The iodine in your firstaid kit is another option. Five drops

per litre will kill bacteria and giardia, but won't kill Cryptosporidium.



3. If you're caught out without a filter, stove or iodine, you can still resort

to the plastic bottle method commonly used in developing countries to purify home drinking water with the sun's UV. Assuming you have a water bottle, fill it three-quarters full, shake it thoroughly to oxygenate the water, then place it on its side—preferably on a dark background—in the sun for three to six hours. It won't kill everything, but if it's hot enough, it will get rid of most harmful microbes.



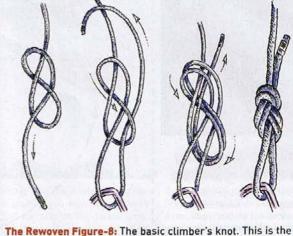
4. For any of these methods, strain muddy or silty water through a T-

shirt first to clear some of the debris. $-K\!A$

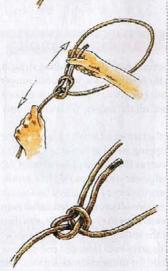
How to tie a knot

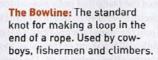
Learn these three basic knots and you'll never fumble with a rope again

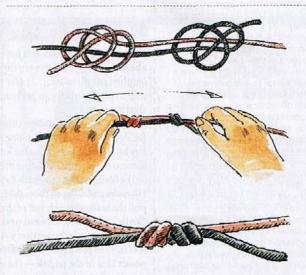




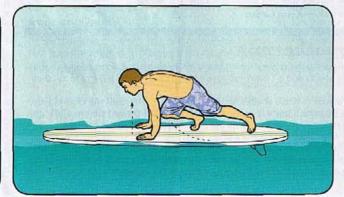
The Rewoven Figure-8: The basic climber's knot. This is the most secure way to tie a harness—or anything else—into the end of a rope. (Not to be confused with the plain Figure-8.)







The Double Fisherman's: Used to tie two ends together, be they climbing ropes, fishing line or just tent string. Secure and easy to undo after being weighted.





How to really sh-t in the WOODS



How to take better photos

As every struggling outdoor photographer knows, beautiful places do not always translate into beautiful pictures. Here are three ways to improve your outdoor images:

- 1. The rule of thirds. Imagine the scene in the viewfinder (or digital LCD) divided into an imaginary grid of nine squares created by two vertical and two horizontal lines. Place the main subject of your photo where the lines would intersect [there are four spots) to add a dynamic feel. For photos with a strong horizontal or vertical element-a horizon, a tree, a fenceline-try placing it along one of the lines, rather than centred in the image. For landscape shots, this lends weight to the sky or the foreground, drawing the eye in.
- 2. Fill flash. One of the most difficult outdoor scenes to shoot is a person against a sunny background. Too often a great shot is ruined by a shadowed, underexposed face or an overexposed background with the details burned out. One of the best ways to avoid both problems is to use your flash whenever shooting a subject against a brightly light background. Your camera won't recognize the need for a flash automatically, so you'll need to turn the flash on manually. If your camera allows for flash exposure compensation-as all SLRs and most modern digicams do-dial the flash exposure down between .7 and -1 stops.
- 3. Natural polarization. Most pro photographers use a polarizing filter to deepen blue skies and eliminate reflection. But even without a fancy filter, you can mimic the effects by aligning yourself 90 degrees to the sun. On a bright day, shooting with the sun at your side-lined up with your shoulders-will make skies look bluer and other colours more saturated. -KA



How to do the Canadian stroke

If you're canoeing solo, you have several options for paddling straight ahead: 1) Change sides every time the boat begins to veer (until you get laughed off the water); 2) Use your paddle to steer the canoe like a ship's rudder (until you get laughed off the water); 3) Learn a proper steering stroke.

Most Canadian paddlers think the J stroke is the ultimate technique for steering, but if you're canoe tripping, nothing beats the Canadian stroke. The Canadian—also known as the Knifing J—starts off the same as the J stroke. After the initial power stroke, you twist the paddle so the blade moves outwards to form the letter J (actually a backwards Jif you're paddling on the right-hand side of the canoe). But rather than pull the blade abruptly out of the water after the J is complete, you then "knife" the paddle forward under the surface of the water until about halfway through the recovery. This saves both time and energy since you have to place the paddle forward for the next stroke anyway. The power face of the paddle—the side of the blade that pulls against the water in the initial stroke-should face the sky, and the main trick here is to get the proper angle while you pull the blade forward through the water. Too much angle and the paddle will burst out of the water; too little and it will dive deep below the surface like a submarine. The pressure given to the paddle while you pull it up through the water and the length of the time it's kept below the surface together determine how much the canoe veers back the other way. -Kevin Callan

How to recognize tracks

Even if you don't see them, it's nice to know what animals are in the neighbourhood, especially when they have long claws.



4 to 6 inches long Up to 5 inches wide



Whitetail deer

2-3 inches long 2.5 inches wide



5-6 inches long 5.5 inches wide

4.5 inches wide



Front paws 6 inches long and wide Rear paws 10 inches





long, 4 inches wide, Rear paws up to 12 inches long, 4 inches wide

How to treat hypothermia

You don't need sub-zero temperatures for you or your hiking pal to get hypothermia. Even people caught in a summer thunderstorm wearing shorts and a T-shirt can lose enough body heat in a hurry to put their health in danger.

In cases of mild hypothermia, it's good to find a shelter and/or light a fire. Remove all wet clothes lyup, all of 'em) and replace them with dry layers. If there is no dry clothing, wring out the wet clothes and (ugh) put them back on. Have a hot, sweet drink-no alcohol-and eat something that's high in calories.

In cases of severe hypothermia, when body temperature drops below 90°F (32°C), a person stops shivering and could fall unconscious. Put the victim in a warm sleeping bag and heat the body up any way you can-body-to-body contact, hot rocks wrapped in clothing or hot water bottles. Put the heat sources close to the groin, armpits and neck, but make sure there is always a layer of clothing between the skin and the heat source. - Jackie Davis

How to catch big air

Logging air time-either off a cliff or a man-made stunt-is one of the true joys of mountain biking. Thankfully, modern full-suspension freeride bikes mean you no longer need to be a pro to experience the weightless sensation of dropping a six-foot cliff. But you do need some basic skills. Eight inches of suspension may soften the landing, but it won't save your ass if you bottle the takeoff. Start small (don't try a jump like the one pictured here on your first attempt) and work up, following these basic guidelines: 1. Roll into the takeoff with enough speed to carry you forward. You want to fly through the air, not drop like a stone. 2. Ride in with your arms bent, a tight grip on the bars, and your butt off the seat. Keep most of your weight over the



back wheel. 3. As you approach the lip, preload by pumping into the ground. Imagine yourself as a coiled spring. 4. As you take off, keep your eyes forward—where you're going to land—and unload the spring,

tifting the front wheel slightly.

5. Ideally, you want to land with both wheels at the same time. Landing back wheel slightly first is okay, but you definitely don't want to land front wheel first.

6. Even if you feel like you're

going too fast, do not touch the brakes in the air. Hit the ground with the brakes locked, and you'll catapult over the bars like a human cannonball. If you need to dump speed, do it after you land. —KA







How to self-arrest

For mountaineers or hikers who travel on glaciers, knowing how to self-arrest with an ice axe is a key survival skill. Usually, by the time you realize you're falling there's no time to think. Yet, it's during the first moments of a fall—before you gather speed—that you have the best chance of stopping yourself. Self-arresting must be second nature. Start by memorizing the sequence of moves:

- 1. Hold the ice axe tightly across your body with one hand wrapped around the head, and the other gripping the shaft near the bottom.
- 2. Whatever direction you're falling—head first, feet first, on your back, or on your stomach—always roll towards the head of the axe to get into the arrest position. Roll the other way and the bottom spike of the axe will dig in and rip the axe out of your hand.
- 3. Once you are in the self-arrest position, you should be face down, with your feet pointing

downhill, and the head of the axe in front of your shoulder.

- Press down firmly with the weight of your chest and shoulders on the head of the axe, keeping a tight grip.
- **5.** Arch your back away from the snow, further transferring most of your body weight to the head of the axe.
- **6.** Keep your knees and toes in the snow—legs spread apart for stability—to help slow the fall.
- 7. The arrest may be gradual, so don't give up if you don't come to an immediate halt. And if you get flipped out of the arrest position, keep trying. Even if you don't succeed in stopping your fall, anything you do to slow down and keep your feet heading downhill will raise your chances of survival if you go over a cliff or crash into trees or rocks. It will also help your rope partners if they have to go into self-arrest to stop your fall. —KA

How to do the rest step

The rest step is a simple but effective method to prolong endurance when hiking uphill. The idea is to slow down and rest as you go, rather than firing at top speed until your legs and lungs give out, stopping, then starting again. It's a hare versus tortoise thing, and we all know who wins that one. To do it, swing your leg forward in a normal walking motion and plant it uphill. Now, instead of immediately taking another step, transfer your weight to your back leg and rest a moment, keeping your back leg straight. For a moment, your weight will be supported by the bones of your back leg, giving your muscles a rest. Repeat with your other leg, synchronizing your breathing with your steps. At first, the pace may seem excruciatingly slow, but over the long run, you'll steadily reel in the kilometres and feel less fatigued at the end of the day. -KA



How to throw the perfect loop

Remember that scene in A River Runs Through It, with Brad Pitt (or a reasonable facsimile thereof) throwing long, perfect loops of fly line across the expanse of the Big Blackfoot River? Remember the look in your girlfriend's eye during that scene of surpassing masculine grace? Despair not, for with a little practice and technique you can cast just like that—and in the process swap your inner Pitt for your outer pitiful. Here's how.

Begin not on a river, but on a large lawn. Then forget everything you know about "classic" casting form. Old-time manuals preach keeping your elbow locked to your side and restricting your casting arc from 10 o'clock to 2 o'clock—just the thing for a 20-foot cast on a genteel chalk stream. For distance casting, however, you have to lengthen the arc and throw your entire arm into it.

Point your rod in the direction of the line, lock your wrist, and lift firmly from the shoulder until it looks as though you're signalling a left turn on a bicycle. When the line has completely unfurled behind you, push the rod forward from your ear on an even plane, as if you're throwing a straight right hand in a boxing match.

That's good. But it's still not enough to set feminine hearts aflutter. For truly heroic casts of 100 or even 120 feet, fullarm power has to be coupled with a double-haul.

Lay out another 60 feet of line on the grass, and pile an additional 20 on the ground next to you. Take hold of the line with your left hand, and when you move your rod tip

up in your standard full-arm motion, jerk—or "haul"—the line in the opposite direction, increasing the velocity of the back cast. As the line unfurls behind you, bring your left hand back close to the reel, then haul again during the forward punching motion, shooting the extra 20 feet out the end of the rod.

Casting long loops isn't easy, but it's worth the effort to learn. For starters, it'll help you catch more fish. Beyond that, it showcases grace, beauty and power, three qualities no man should live without. And did I mention chicks dig it?

—Mark Anderson



How to do a bunny hop

The bunny hop—lifting both wheels off the ground on a mountain bike—
is a key skill that will help you no matter what kind of terrain you ride.
Bunny hopping with SPD pedals or toe clips is relatively easy: just push
down with your legs and then jump back up, lifting your pedals with you.
But learning how to bunny hop the right way—with flat pedals, like pro
mountain biker Ryan Leech, pictured left—will give you more control and
get you higher off the ground. Here's how:

Start without an obstacle. Roll forward on flat ground at a slow speed.

As you get ready to hop, compress your body and your suspension—if you have any—by bending your arms and legs and pushing into the ground. When you're ready to hop, decompress and pull the front wheel up by shifting your weight back and pulling your handlebars up towards your chest. As the front wheel clears the object, quickly transfer your weight forward, and at the same time throw your handlebars forward and up. This will flatten your bike out in the air and transfer the upward energy of the front wheel to the back. It helps to roll your bars by twisting your wrist—that way the bars act like a fulcrum, around which your bike rotates. Keep your feet on the pedals at all costs or you'll end up with a disastrous landing. With flat pedals, it helps to imagine "gripping" them by curling your feet slightly. Try to land with the back wheel first or both wheels at the same time—no big deal for small objects, but as you progress higher this will keep you from doing an unwanted endo. —KA



How to remove a tick

These tiny arachnids carry a host of diseases—like Rocky Mountain Spotted Fever and Lyme Disease—so when you find one on you, you'll want to get rid of it in a hurry. But that's easier said than done. Once they bite, ticks produce a substance from their beaklike mouths that cements them into place. Here's how to remove them.

1. Spray your tick with bug repellent. This will make it relax its grip. 2. Use tweezers to grasp the tick as close to the surface of the skin as possible, and then pull upwards—gently—until the little bugger lets go. 3. If the head breaks off, don't leave it there. Remove the rest of the tick with a needle as if removing a splinter. 4. If your tick comes through the ordeal intact, you can always keep it in a jar as a pet. —JD

How to really sh-t in the WOODS



How to make a really good meal

When people pay \$400 for a

meal at a high-end restaurant, what are they really paying for? Ambience. So ask yourself this: is there any restaurant anywhere in the world that has hired an interior designer who can outdo Mother Nature? Or how about this: If you're going to stick your schnoz inside the bowl of some oversized wineglass and sniff in the delicate and nuanced aromas, wouldn't it be better to do so not in some climate-controlled room next to a major traffic artery but at a campsite at dusk, next to a glass-calm lake? Here's how you do it: 1. Pick a campsite that isn't too difficult and won't take too long to get to. (You don't want your ingredients to spoil.) Invite a friend or that special someone. 2. Buy an excellent bottle of red wine, one that's ready to drink now. 3. Buy two good steaks. 4. Parboil three Yukon Gold potatoes, then cut them into thin slices. 5. Slice up a whole bunch of mushrooms and cook them. 6. Dice a shallot. 7. If you like vegetables, add some of those. 8. When you get to your campsite, light the perfect cooking fire and open the wine to let it breathe. 9. In one pan, fry your potatoes in butter, then set aside and cover with foil. Sprinkle some salt on the steaks. 10. In a different pan, fry the steaks until they're done (three to five minutes per side). Remove them and fry the diced shallot in the remaining fat. 11. After a minute or so, add the mushrooms and a generous glug of your good wine. Fry down the liquid until it becomes thick. 12. Put steak on plate next to potato. Pour the mushrooms and gravy over the steak. 13. Eat, drink and be merry. - Mark Schatzker

How to clean your bladder

Hydration systems were designed to take clean H2O into the backcountry so you wouldn't have to dip into streams and lakes filled with nasty microbes. But if you fail to clean your bladder propely, you may as well just drink from the same water the moose bathe in.

There are plenty of antibacterial soaps that will knock the nasty bugs down, but you can also use stuff you likely have at home. To clean the bladder, fill it with warm water, add a teaspoon of chlorine bleach and soak overnight. Drain the chlorine mixture out and rinse the bladder and tube several times with warm water.

If you find that odours and

flavours from various drinks have a bit too much hang time, you can easily eliminate them.

Again start with the warm water rinse. Then add a quarter cup of baking soda to three-quarters of a cup of water, pour the mixture into the bladder and shake well. Here's the fun part: holding the bladder away from

your face add a quarter cup of lemon juice. The reaction will cause gas to build up, so be sure the bladder is able to release pressure. Wait 10 minutes for the bubbling to subside, squeeze out as much air as possible, close the cap and let sit. After 20 minutes, rinse out with hot water, and you'll have a non-smelly bladder.

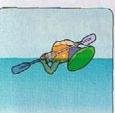
-Bruce Ramsay

How to clean your Gore-Tex

Your Gore-Tex jacket will work a lot better if you keep it clean. Over time, dirt will work its way into the weave of the outer fabric and micro-pores of the membrane, reducing breathability and causing the jacket to soak out. Here's how to keep your favourite shell clean:

- 1. Wash it in the machine in warm water with regular detergent.
- 2. Run it through an extra rinse cycle to make sure all the detergent rinsed off.
- 3. Tumble dry on medium heat. This reinvigorates the DWR coating that causes water to bead off.
- 4. When water no longer beads off your jacket-even after a wash-use a spray-on water repellency restorative made specifically for outdoor fabrics. -KA









How to roll a kayak

Whether you're about to be scraped across a coral reef by breaking surf or grated through the boulder garden of a steep, shallow creek, knowing how to roll a kayak is a very good thing. Of the more than 20 techniques you can use, the C and C roll is the simplest to learn. Here's how:

- 1. Flip over. (Some competence in this area is assumed.)
- 2. Don't panic. You have a few minutes before brain damage even begins to set in so take 10 seconds to become oriented and calm. Nose plugs and swim goggles help.
- 3. Get set up. Lean forward and

- to the side you'd like to roll up on. The paddle shaft should be parallel to the kayak with your head as close to the surface as possible. Get both hands as far out of the water as you can so your forearms are resting against the side of the kayak.
- 4. Extend the paddle. Skim the front paddle blade across the surface of the water until the shaft is nearly perpendicular to the boat. The back blade should be out of the way above the overturned boat.
- 5. Rotate your lower body. With your head and paddle near the surface of the water, lever your

torso so your upper body stays more or less still while a strong hip flick twists the boat on its longitudinal axis.

- 6. If rolling up to the left, think of it as bringing your right knee underneath the boat and up and out of the water. Lift up with this "rolling knee" while pulling down gently with your paddle.
- 7. Your head should be the last thing to leave the water. If you try to bring your head out of the water before the boat is upright you will stall your torso's twisting momentum and have to try again (with less oxygen). Try to watch the paddle blade through the entire roll. This will get your head in the correct position and ensure it stays there. - Ian Merringer



How to sh-t in the woods

If you're travelling in the wilderness with others, it's important to come up with an excrement management system before anyone drops their trousers. Otherwise you'll have turd anarchy, which can totally destroy group dynamics. Here's the poop plan:

 Make sure people head back at least 150 feet from camp before any feces are released into the wilds.

 Hang a bag containing TP, hand sanitizer and a small spade on a tree limb.
 (A missing bag indicates the forest is currently occupied.)

 Use the spade to dig a "cat-hole" about an inch or so deep—and when finished, cover up the nasty bits with a mound of dirt. [Cat-holes are much more efficient in breaking the manure down to potting soil than the Boy Scout routine of a deeply dug trench.]

 Return, very carefully, with the wad of TP and discreetly dispose of it in a very hot campfire.

· Wait at least 10 minutes before toasting marshmallows.—KC

How to swim out of a rip current

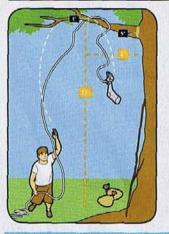
If you start getting dragged out to sea, stay calm to conserve energy and follow these steps:

1. As soon as you realize you're being swept out, don't waste energy fighting the current trying to swim back towards shore.

2. Instead, swim parallel with the shoreline out of the flow of the current. Most rips are fairly narrow streams, and once you're out, you can easily swim back to shore.

3. If the current is too strong or too wide and you can't get out sideways, just float or tread water and let it take you out. Once the current subsides, swim sideways beyond the current and back towards shore.

4. If you start to run out of energy, face the shore, wave your arms and yell for help. Do so before you are completely out of strength, as it may take several minutes for help to arrive. —KA









How to rig a bear hang

Keeping your food out of a hungry bear's reach in the back-country means getting it at least 10 feet above the ground and four feet from the nearest tree trunk. Most people toss a rope over a high limb and tie it off to the trunk, but smart bears have no problem loosening the rope to get at the grub. A better method, according to Dave Smith's Backcountry Bear Basics,

is the counterbalance method:

1. Divide your food (including all used pots, pans and utensits) into two equally weighted bags of no more than 10 pounds each.

2. Put a rock or other weight in a sock, tie it to one end of the rope and toss it over a branch at least 17 feet off the ground and at least four feet from the trunk. Look for a branch strong enough to support your food, but

too skinny to support the weight of a bear cub. Smith suggests a branch four to five inches in diameter at the base and one inch in diameter where your food will hang. 3. Once you've successfully tossed the rope over and pulled the rope far enough away from the trunk, remove the sock and tie one bag of food to the end securely. Tie a retrieval loop in the rope just above the bag, and hoist the whole deal up as close the branch as you can

using the free end of the rope.

4. Now tie the other bag as high up this end as possible, stuff the remaining rope in the bag, and tie another retrieval loop in the rope above the bag. 5. Push the bag up with a stick until the two bags are hanging at least 10 feet off the ground, counterbalancing, each other. 6. To get your food back, hook either loop with a long stick. It's a good idea to locate a long enough stick before committing your food to the tree. — KA



How to light a fire

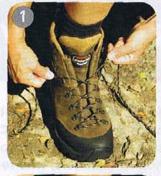
Start by creating a small bed of bark or cedar/pine boughs that will raise your fire off the possibly damp ground and provide a combustible base. Next take a piece of non-rotten wood and whittle some shavings. Once you have a good-sized ball of shavings labout six inches in diameter) place them on the cushion of bark or boughs. Then build a teepee of medium-sized sticks, keeping an opening that faces the wind. Take your match or lighter [] prefer a lighter because it will spark even after being fully dunked) and apply the flame to the shavings. Once your fire is burning you can start adding bigger pieces of wood by building a bigger pyramid to enclose the smaller one. Less is definitely the rule here, as too much wood will block the crucial flow of air to feed the fire.

After the initial flare up, you'll have to stoke or blow air onto the now hot sticks to keep them flaming. To avoid putting your face right next to the fire and singeing your facial hair, try a little trick used in Nepal. Take the index finger and thumb of each hand and bring them together so that they form a diamond shape. Next bring this diamond up to your lips and blow through the centre of the hole. For some reason known only to aerodynamic engineers and the Sherpa people, this creates a jet of air that allows you to blow on the embers from a safe nonsinge-inducing distance of as much as four feet. -BR

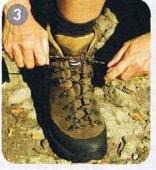
How to tie your boots

When you're hiking in the mountains, having your feet move around in your boots—either at the heel or at the toe—can result in a blister nightmare. The trick is to lace your boots with a technique that lets you tighten some parts more and other parts less. Here's how to do it:

1. Lace the lower part of your boot—the section with regular eyelets—as you normally would. Pull it snug, but leave room for your foot to breathe. 2. When you get to the upper section of eyelets—where the quick-release hooks start—begin reverse threading the eyelets, going over the top of the eyelet first then wrapping it downwards and on the next eyelet. This locks the laces in place so









they won't loosen as you're walking along. 3. After lacing the top eyelet, put an extra overhand twist in the lace before tying your knot. Again, this keeps the laces from slipping loose. 4. Always use a double knot (i.e., tie the loops together) at the end to avoid the possibility of a lace coming untied and causing you to stumble like an idiot. -KA

How to pedal with power

Okay, so you're probably never going to be the next Lance. But if you'd like to kick your riding up a level, you have to improve your pedalling power.

First make sure that your bike is adjusted properly for your size. Set your seat height so that the distance from the top of your seat to the middle of your crank is 90 per cent of your inseam measurement. This should result in a slight bend in your knee when you sit on the saddle and your foot is at the 6:00 position.

Now that you're set up, it's time to try turning those'pedals. Imagine that your pedals are the hands of a clock. Starting with your right foot at the 12:00 position, begin your down or power stroke with your toes pointed down slightly. As your pedal nears the 5:00 position, push your ankle down slightly and bring it through the 5:00 to 7:00 positions. Maintain this ankledown position as your right leg

lifts up on the pedal to 11:00 and assists in the power stroke of your left leg. As your right foot comes around to 12:00 again, return your toes to the down position. The end result is that you have both legs applying force at all times, and working together instead of one leg working while the other gets a free ride, or just gets in the way.

The easiest way to learn how to do this is to pedal with one leg at a time. Clip into one pedal, select a gear ratio that provides a bit of resistance and spin for 15 to 30 revolutions at a time along a flat trail or pathway. The goal is to maintain an even cadence. At first you'll try to push and pull too hard on the down and up strokes and this in turn will cause your butt to bounce and move on the saddle. When you're ready to really test your pedal stroke efficiency, take this same drill to a gravel road or loose singletrack. -BR

How to

So you're stum-

bling through the wilderness and realize suddenly that you don't know where the hell you are anymore. You're utterly, completely, "Hey didn't I pass that rock like four times already?" lost. According to David Arama, who runs Ontario's Wilderness Survival School, admitting that you're really lost is the first key to getting found. Next, STOP: Sit, think, observe, plan. If you panic, you could get yourself even more turned around and make it harder for rescue workers to find you. In most cases, it's best to stay where you are. "Percentages show that most people are found alive if they stay put," Arama says. You should signal potential rescuers with a fire or by constructing something that looks out of the ordinary and would attract attention. Make a big pile of rocks, or write out "SOS" with tree branches. Get creative. It's not like you have anything else to do.

−JD e