Knowing how to cross a river is a critical hiking skill. Take the time to learn correct river crossing techniques.
I have been running my own design agency for the past 24 years and spend a lot of time sitting at my desk in front of a computer. I didn’t do a lot of exercise apart from a few short walks and a bit of manual labour. One day I woke up and realised that I was not as fit or skinny as I used to be and running around after my two young boys would leave me feeling exhausted. I had just passed the 40-year mark too and felt like if I didn’t make a change now then the second half of my life would really be tough.

I have always enjoyed the outdoors, walking, camping, fishing but had never truly hiked. In Christmas 2012 we were holidaying at the Grampians with friends when I decided I’d had enough of sitting around the campsite so I headed to the Pinnacle for a short hike. It was so tiring and felt like it took me hours to finally reach the summit. But I loved it. It hurt but it felt good. So the next day I work up at 5:30am, grabbed my pack and breakfast and headed up there again to watch the sun rise. I did that every day for an entire week before we returned home.

I was fortunate to be living on the edge of the Lerderderg State Park in Victoria’s west so when we returned home I purchased a topographical map of the area and started hiking. I hiked every weekend, sometimes on both days and after approximately four months I was astonished that I had lost 14kg.

I hiked for fitness and I hiked for mental well-being. I found that getting up early on Saturday morning and going for a hike separated my working life from my family life and I could better engage with everyone around me. That is where it started and I have never looked back.

Now hiking has become my life!
ENJOYABLE TIME

Tips for a More Enjoyable Time on the Trail

In the most isolated places, you'll be completely alone. But, on most hikes you will meet other hikers and occasionally horses and other animals. Courtesy and common sense will make these encounters safe and simple.

1. Hike Quietly
   Hike quietly. Speak in low voices and turn your cell phone down if not on. Enjoy the sounds of nature and let others do the same. There is such a thing as noise pollution and someone who wants to engage in constant chatter is simply being disrespectful to others. If you want to talk all day about topics that interest you why not go to the pub instead?

2. Give Way to Uphill Traffic
   Always yield to uphill traffic. If you've ever been plodding up a hill at a nice steady pace only to be run into by someone in a hurry to get down, then you understand the logic behind this. Going uphill is hard work, and changing up your speed can ruin your momentum. This is why people travelling uphill have the right of way. Of course, some hikers (like me) welcome any opportunity to stop and rest and we will often signal for downhill hikers to pass us. This happens a lot, just remember that it's up to the guy going uphill to make the call. Otherwise, yield.

3. Stay to the Left, Pass on the Right
   The first thing that you need to know is that there is a hierarchy on the trail. Horses have priority, followed by hikers, and then bikers. It's pretty simple to remember and makes encounters much more pleasant when everyone knows who gets to go first. Always check to see what other kinds of travelers will be sharing the trail with you before you start. If horses or bikes are allowed, then be mentally prepared to encounter them.

   If you want to pass someone from behind, get their attention by shouting out “On your left.” However, you don't need to be overly formal or gruff, and a friendly, “Hi there, Can I get around you?” works just as well.

   Day hiking is the best way to travel uphill to make the call. Otherwise, yield.

   Another way to leave no trace is to stay on the trail. You don't need to prove your manliness by cutting across switchbacks on your way up the mountain. This can damage fragile plants, erode trails, and loosen rocks and boulders that may injure you or people below you.

   Leave what you find. The only souvenirs a hiker should come home with are photographs and happy memories — and maybe an improved fitness level!

   When toileting in the outdoors, please do so 50 metres from the trail and any water sources. Follow Leave No Trace principles when doing so.

   Walk through the mud or puddle and not around it, unless you can do so without going off-trail. Widening a trail by going around puddles, etc. is bad for trail sustainability.

   Read more about the seven principles of Leave No Trace.

4. Leave No Trace
   This rule can be observed in a number of ways.

   The most apparent way is to clean up after yourself and pass out anything that you brought in. Even things like banana peels and apple cores can take quite a while to decompose and they don't improve the scenery one bit.

   This goes for dogs too, if you're unwilling to clean up after your dog, then don't take it out. No one wants to step in your dog's little presents on the sidewalk, and the trail is no different.

   Another way to leave no trace is to stay on the trail. You don't need to prove your manliness by cutting across switchbacks on your way up the mountain. This can damage fragile plants, erode trails, and loosen rocks and boulders that may injure you or people below you.

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   Read more about the seven principles of Leave No Trace.

5. Stay on the Trail
   It is important to move off the trail for views and breaks. When hiking wilderness areas, it is important to protect the trails. In other words, don't take short cuts. This seems to occur most often on switchbacks, but is important at all points of the trail. This type of occurrence, not only damages the natural habitat of the newly traveled area; it can also become a safety hazard to other hikers where an unkept area can breed falls, twisted ankles, or unwelcomed run-ins with animals and plant life.

6. Horses, Hikers, and Bikers
   The first thing that you need to know is that there is a hierarchy on the trail. Horses have priority, followed by hikers, and then bikers. It's pretty simple to remember and makes encounters much more pleasant when everyone knows who gets to go first. Always check to see what other kinds of travelers will be sharing the trail with you before you start. If horses or bikes are allowed, then be mentally prepared to encounter them.

   When being passed by horses, it is important to step off the trail, on the downhill side if possible. This helps in two ways: it will help keep from startling the horses, and it will keep you from getting run over if they do get spooked. Horses are prey animals, and as such they are always on guard for threats from predators. Standing uphill from a horse may give it the impression that you are larger and more threatening than you actually are. So always try to stay downhill and stay relaxed. Talking to the rider also helps: the horse knows that you're a human and not some mountain lion lying in wait. Horses also tend to bolt uphill when they are startled, so staying out of the way will keep you from getting squashed.

7. Tech on the Trail
   The increase in the use of technology in our daily lives has led to a proportional increase in its use in the outdoors. So a few courtesies should be taken. For many, talking is a chance to experience a little bit of solitude. While it is advantageous to have a phone with you in case of emergency, having full on conversations while on the trail can be distracting to fellow hikers. So for this we say: Keep a fully charged phone with you for safety purposes, but keep it on silent mode, and use it to snap some great photos that you can look back on later.

8. Be Friendly and Have Fun
   Your fellow hikers are out to have a good time just like you are, and a friendly “gday” or “hello” can go a long way toward fostering a positive atmosphere among everyone on the trail.
Hiking Uphill
- Maintain a natural pace and avoid making large strides.
- Long strides are fine on flat terrain, but when going up or down, shorten your stride. Bending your knees deeply, as you do when taking big steps up or down, works the large muscles and your joints harder than bending your knees more shallowly.
- Avoid climbing at high speed. Don’t rest too frequently or for too long. When you feel tired, reduce your speed instead of stopping.
- Tread only on secure stable ground, where there is enough foot room.
- Use the strength of your legs to climb. Avoid pulling yourself up by grasping small trees or branches, as they may break leading to a fall.
- Keep your upper body straight.
- When going up very steep slopes, don’t go straight ahead. Move sideways and work your up in a series of zigzags.
- Hiking poles will benefit an uphill ascent. When going uphill or on flat terrain, adjust your poles’ length so that your elbows are bent at 90 degrees when holding the poles upright with their tips touching the ground. With each stride forward, plant the pole in the opposite hand beside or behind your trailing foot, with the pole at an angle, so that you’re pushing off slightly each time you plant a pole. Planting the pole in front of you—as many people do—doesn’t help propel you forward. Over the course of several miles, you’ll notice the difference.

Hiking Downhill
- Never run downhill – inevitably gravity will always win.
- Long strides are fine on flat terrain, but when going up or down, shorten your stride. Bending your knees deeply, as you do when taking big steps up or down, works the large muscles and your joints harder than bending your knees more shallowly.
- Tread only on secure stable ground, with enough foot room.
- Avoid treading on wet slippery ground, especially wet clay or grasses. But if there is no other way, proceed with caution—and keep your body low.
- Use the strength of your legs to descend. Avoid sliding down by grasping small trees or branches. This indicates you are half out of control. Branches can break and, even if they don’t, you will damage the vegetation.
- Keep your upper body straight.
- When moving down very steep slopes, move sideways and work down in a series of zigzags.
- Hiking poles will benefit a downhill descent. On sustained downhill stretches, lengthen the poles by five to 10 centimeters, depending on the trail’s steepness, and plant each pole out in front of you (right-hand pole when stepping left foot forward and vice versa) so that the poles take some of your body weight when stepping down. For big steps off ledges and rocks, plant both poles first and lean on them as you step down.
On any hike it is important to focus on setting the pace and establishing a natural rhythm that suits you or the slowest member of your group. Breathe smoothly, steadily and in rhythm with your pace and consider the following suggestions.

- Plan a hike that is suitable for everyone in your party and let the slower person set the pace. There is nothing more frustrating and potentially dangerous than a slow hiker falling behind the group.
- Hike at a safe pace – especially uphill – where you're not pushing your heart or respiratory rates into the red zone, and take frequent, short breaks. Hiking is an endurance sport, not a sprint: Dial in a pace that you can maintain for hours rather than a pace at your upper limits, which will fatigue you much faster.
- Walk with the entire sole of your boots touching the ground, to spread the load evenly across your feet.
- Your hands should be free to assist in keeping your body stable. Alternatively, carry a hiking pole to assist with balance.
- Avoid running or jogging.
- Avoid excessive conversation, which may affect your breathing rhythm and concentration.
- Concentrate on the trail and always look where you tread.
- To avoid accidents, always stop walking when you read your map or check your navigation device.
- On hard ascents, stop for a 30-second breather when you need to; even brief rests can provide a surprising degree of physical recovery. Similarly, keep most of your longer breaks to sit for eating/treating/water/bathroom/cooling feet to 15 to 20 minutes or less. That allows plenty of rest time without letting your muscles cool down completely, so you're still ready to hit the trail at a strong pace.

TIP

Hike Light. Keep your pack as light as possible. I’ve hiked with a range of pack sizes carrying a range of heavy packs and light ones, and I’m convinced that carrying a heavy pack takes a harder toll on me physically than carrying a light pack twice as far.

HOW TO USE HIking POLES

Four legs are better than two

Use hiking poles, even on shorter hikes. None of the most experienced and hard-core hikers and backpackers I know ever hike without poles, period. Trekking poles significantly reduce the impact and cumulative fatigue on leg muscles and joints and your lower back, whether going up or down, especially when you’re carrying a load on your back. Poles also reduce your risk of tripping and falling – four legs are better than two.

By the way, many hikers I see don’t use poles properly to maximize their benefits. Here’s how:

When going uphill or on flat terrain, adjust your poles’ length so that your elbows are bent at 90 degrees when holding the poles upright with their tips touching the ground. With each stride forward, plant the pole in the opposite hand beside or behind your trailing foot, with the pole at an angle, so that you're pushing off slightly each time you plant a pole. Planting the pole in front of you-as many people do-doesn’t help propel you forward. Over the course of several miles, you’ll notice the difference.

On sustained downhill stretches, lengthen the poles by five to 10 centimeters, depending on the trail’s steepness, and plant each pole out in front of you (right-hand pole when stepping left foot forward and vice versa) so that the poles take some of your body weight when stepping down. For big steps off ledges and rocks, plant both poles first and lean on them as you step down.

MAKE AN EARLY START

It consistently amazes me how many times I see people out for a walk or hike with nothing but the clothes they are wearing. Sure when you are walking around the suburbs you don’t have to be too concerned about carrying water, snacks and basic medical supplies but when you venture into the bush even for as little as for a leisurely stroll you need to be prepared to come back alive.

That may sound a bit dramatic but I have read countless stories about people becoming lost and coming close to or meeting their demise on short walks into the great unknown.

Don’t even think of starting on a hike that takes you more than a kilometre from the trail head without a bottle of water along. You should have at least one litre with you and consume 250ml every 30 to 45 minutes. Keep the water flowing into your body even if you don’t feel thirsty. Do you realize that by the time you actually feel thirsty you are already dehydrated? If you are hiking, you are losing moisture and you need to replace it.

By the end of a 4-hour hike, you should have consumed two litres of water and you should be able to go to the toilet. Urine that is light yellow (straw colour) is a good indication that you’re getting enough fluid. If you don’t need to urinate then all the water you drank left your body as perspiration and you still need to drink more water to re-hydrate. Following a hike, you should drink additional water with electrolytes until you need to use the toilet. I don’t mean scull it down, just drink half a cup every 5 minutes or so.

Water is THE most critical survival item — whether in the wild or at home.
Scrambling over easy rock terrain uses the same movement skills as rock climbing. Many rock climbers actually learn how to climb by scrambling up mountains. They learn about keeping in balance and using precise footwork by moving over slabs, by finding handholds and footholds on steeper cliff sections, and by hopping across loose boulders. Later they take those movement skills and use them to become actual rock climbers.

Learn to climb by scrambling
When I guide a group of newbies on a hike that requires rock scrambling I take them to easy boulders and low-angle slabs and let them scramble around on the rock. Besides making climbing less serious and more about having fun, scrambling teaches the importance of balance and using your feet to support your body.

6 basic scrambling skills
Here are six basic climbing movement skills that will improve your scrambling, getting you up more mountains and staying safer when you’re climbing easy rock without equipment and a safety rope.

Always keep three points of contact—two feet and a hand or two hands and a foot—on the rock surface at all times. Move only one limb at a time. Stay solid as you move. Make moves from your body’s core to keep in balance.

2. Keep weight over your feet.
When you’re scrambling you’re usually on easy rock terrain so you can almost always find secure footholds. Use those footholds to stay in balance. Learn to trust your feet. Use the biggest holds whenever possible. Keep your weight over your feet, not on your arms.

3. Use your hands effectively.
Don’t make long reaches with your arms. Instead grab handholds that are no higher than a foot above your head. If you’re scrambling on slabby or low-angle terrain and don’t need handholds, spread your arms out for balance like you’re walking a slackline. Learn all the basic finger grips so you can utilise lots of different handholds.

4. Test all handholds and footholds.
Loose rock abounds on scrambling routes. Test every handhold and foothold that you use. Pull down on handholds rather than out. Tap the rock around handholds with your knuckles. If it sounds hollow—don’t use it. Loose rock causes many scrambling accidents.

5. Load your climbing pack correctly.
Put all the heavy stuff at the bottom of your climbing pack and close to your back, which lowers your center of gravity and makes you less likely to tip backwards. A waist strap keeps your pack from shifting during crucial moves and throwing you off balance.

Scrambling is dangerous. If you are climbing easy rock terrain without a rope, then a misstep, broken hold, or loss of focus could cause a fatal fall. Keep your attention on the climbing moves ahead. Don’t get wrapped up in conversations with your hiking buddies or daydreaming about your next hike. If you’re out of breath in high mountains, stop and catch your breath in a safe spot. If you’re gripped by exposure, the gaping void of air beneath you, stop at a safe place like a ledge and take a few deep breaths. Never be afraid to ask a hiking buddy for help if you’re having problems or if you’re scared. It’s better to be safe than to risk a fall.
HIKING ON SNOW
Traveling safely across snow is an essential skill for many hikers and climbers as it is not the same as hiking on terra firma.

Snow travel: a good skill to add to your pack
A snow pass can provide a significant and dangerous obstacle for the unprepared hiker traveling in the high country. Even if you don’t aspire to climbing peaks, it is definitely worth your time to learn how to kick good steps and travel with an ice axe.

Hiking on snow can reduce your impact
Having the confidence to travel on snow allows you reduce your impact by walking on snow instead of around it, a practice which can create additional trails and destroy vegetation.

Travel on firm snow reduces risk from avalanches
Reduce your chances of getting caught in an avalanche by climbing and descending your route while the snow is still firm. For east-facing routes, this may mean completing much of your ascent before sunrise.

Look ahead to spot hazardous transition zones
Common places where falls occur are transition zones. These are places where the terrain or characteristics of the snow changes and hikers fall because they fail to adjust their equipment or technique. Avoid these hazards by looking ahead and preparing for changes before you encounter them. For example it may be much easier to put on your crampons on a low angle section instead of waiting until you are starting to slide because the snow is too steep or too firm.

How to kick steps in snow
Kicking steps with your feet is more complex than most books make it seem. The two tips I commonly offer are to 1) choose the step that gets the most of your boot’s sole in contact with the snow (if you’re worried about falling) and 2) not to tumble around when kicking hard-firm snow.

Old footsteps can be icy: you may be better kicking your own steps
Beware of following an old set of footsteps across a snowy slope. These may be very icy, especially on a cold morning. If you are proficient kicking steps you are much more likely to find a better route or travel more safely across pre-existing steps.

Getting technical: crampons, ice axes and rope teams
While ski poles or hiking poles may help you maintain balance while kicking steps across a slope, an ice axe is superior for helping you self-arrest if you fall. Self-arresting with ski poles is possible, but it is much more difficult and you will slide further than if you are using an ice ax.

Crampons: only to be used on firm snow and ice
Crampons are an amazing tool that give your feet traction, but they should only be used on very firm snow and ice. The danger on soft snow is that snow will build up under your boot so that your points fail to stick which may cause you to fall.

If you want to learn even more about kicking steps, crampons, ice-axes and hiking over snow I would recommend seeking out the advice of a professional in this field.

HIKING ON SCREE
Scree is bits of broken rock piled up at the base of a cliff. In the mountains, daily heating and freezing of moisture on the solid rock causes it to slowly break the rock apart and tumble down. A scree slope will pile up to its steepest possible angle. Depending on the size and shape of the rock chunks, that angle may be shallow or steep.

Any additional rock that falls on the slope will roll down until it finds a resting place or hits the bottom. The same is true for your foot! When you step onto a slope of loose rock, just like sand, it will give way under the weight until the material under it settles with the new weight. This may be a few millimetres or a few centimetres. In some cases, you may be sliding down the slope along with a couple tons of rock, all looking for stable places to rest.

Established trails across scree tend to be packed indentations where many people have helped push the rock down a bit until there is a slightly wider path across the face of the slope. Scree trails can’t have very steep inclines so they typically run straight across or a slight rise. It is very important to remain on the trail and watch your step.

Screeing is a fun, very dangerous tactic of quickly descending a scree slope. If the scree is small enough and deep enough, you can kind of ski down it in your boots. You are actually creating a mini-rockslide and riding it down. Make sure there are no larger rocks to trip you up and no one below you. And, there’s a good chance you will take a tumble, so doing it only on grape or orange sized scree rather than cantelope and watermelon sized scree is a good idea.

When the sand is piled and you are hiking up or across it, every step sinks or slips back making the going slow and more dangerous. Your the footprints can remain for days until either the wind slowly moves the sand around, it rains or large waves jump further ashore. Risks of stumbling, twisting your ankle, or causing a sand-slide increase as the slope gets steeper and you become more tired.

So, stick to the water-line, go slow and carefully place each step.

HIKING ON SAND
If you’ve ever walked on the beach, you’ve felt the sand give way with every step you take. When you walk on wet sand that is packed, the going is much easier than on dry, soft sand.

The best area to hike is just above the water-line where footprints are quickly washed away by wave action. The benefit of this zone is that the sand will be compacted and any footprints you leave will be washed away quicker, leaving less of a trace and impact on the environment.

BooMliers (or Talus) is really scree, just a lot larger version. People just tend to call smaller bits of rock Scree and bigger bits Boulders. It’s all the fragments that have broken off of mountains and piled up. Depending on the composition of the original rock, the pieces of talus will be tiny, huge, or somewhere in between.

Out of all the hiking I have done, this is my favourite style of hiking. It can be dangerous and takes a lot of effort, but when things are just right, you feel just like a wild mountain goat scampering wherever you want to go.

Boulder hopping is when you step or hop from one boulder to the next in a large field of (you guessed it) boulders. In good hiking boots with grippy rubber soles and on dry rocks this is fun. Instead of working your way between the boulders, you simply step on the tops of them.

With a bit of practice you will build confidence in your ability and footing and can practically dance across a boulder field. Foot-eye coordination is key so that you know where you are heading, where you are landing and have the next couple of steps already planned ahead. I usually hop back and forth when descending a steeper field because the change in direction helps slow me down and maintain control.

Don’t even try rock hopping if it is raining, or your boots are wet, or its cold enough for ice. Any slippery surface will be disastrous.
Knowing how to cross a river is a critical hiking skill. Take the time to learn correct river crossing techniques.

words by New Zealand Mountain Safety Council

The fact is that crossing rivers, especially when they’re running high, is among the riskier things you can do on the trail. Rocks and logs may offer a bridge to the opposite bank. But they’re often wet or covered with algae and mosses. That can lead to slips and falls, and, therefore, any number of things that you really don’t want to experience: head injuries, broken bones, and the chance to get swept downstream.

The rate of runoff in streams and rivers is highly variable. In years of light snowfall and hot spring days, streams may run at low-to-moderate levels by early summer. However, in years with heavy and late-season snows, rivers can run so high that trails, even ones with actual bridges, remain impassable well into summer.

Two keys to remember: Don’t take any unnecessary risks. And don’t push anyone past their skill and confidence level. You’re only as capable as the weakest hiker in your group.

Where To Cross

- Move side on to the current
- Take small shuffling steps
- Watch the far bank
- Move diagonally across the river to utilize the effect of the current
- Don’t fight the current
- Don’t clutch logs or rocks under the water
- Keep your boots on
- Avoid loose, baggy clothing
- Wear woollen or appropriate synthetic clothing next to the skin in cold conditions
- Waterproof pack contents
- Loosen pack shoulder straps
- Unfasten pack waist band

If you have to cross then consider

- Run out
- Nature of river bed
- Speed of river flow
- Turbulence of the river
- Depth of water
- Shape of water
- Entry and Exit points
- Capabilities of the group
- Coldness of the water
- Safer alternatives

Acceptable Crossing Places

- Shallow water (approximately thigh deep) flowing above shingly or gravelly beds and with accessible banks
- Shallow water flowing over a boulder bed with a variable current
- Deep and slow flowing river but not too wide

Unacceptable Crossing Places

- High and Discoloured water
- Excessive river flow and volume
- Excessive river width

The day will come when you are faced with the decision; Try to ford a river or swiftly flowing stream, or turn back? Is this worth the risk?
**RIVER CROSSING continued...**

### Single Pole Crossing

**Points to consider**
- Pole held diagonally across the body
- Body parallel to the direction of river flow
- Pole positioned upstream and moved through the water
- Pole dimensions approximately 2 metres x 6cm
- Pack straps loosened and waist band undone
- Maximum depth of water approximately thigh deep
- Lean on pole using it as a ‘3rd’ leg as you move the feet forward
- Move diagonally across and slightly downstream in an ‘arc’ fashion
- Used for individual crossings
- Suitable for rivers with reasonably smooth bottoms and no hazards downstream
- Always wear footwear

### Long Pole Crossing

**Points to consider**
- Group parallel to direction of river flow
- Strongest person oil upstream end. Also controls movement of group
- Second strongest person on the downstream end
- Upstream arm over and downstream arm under pole. Arms linked together
- Maximum water depth up to waist height
- Pole diameter approximately 6-7 cm
- Group moves diagonally across and slightly downstream
- Used by groups of 3-6 people where river conditions are too dangerous for individual crossing
- Very strong and stable method
- Retreat backwards if conditions are too difficult. Do not turn around
- Always wear footwear

### Mutual Support Crossing

**Points to consider**
- Strongest person at upstream end
- Upstream person slightly forward
- Second strongest person at downstream end
- Arms linked at the elbows
- Group parallel to the current
- Maximum river depth approximately thigh deep
- Pack straps loosened and waist band undone
- Used by groups of 3-5 people
- Suitable for rivers with uneven beds
- Groups move as a single unit
- Always wear footwear

### Recovery and Survival

If you fall in, the pack can be used as a life jacket:
- Lean back on pack and face downstream
- Push down on pack straps to keep pack on back
- Keep feet in a running position and head diagonally towards the bank
- Remove pack only if you lose control of it and/or it pushes you under. Then use it as pack float

### Pack floating

- Used where crossing is deep, river is clear of debris and river current is not a problem
- Pack is held in front with one hand. Other hand is used (with the aid of the legs) to propel pack and self towards the bank
- Contents of pack should be water-proofed before any pack float
- All group members must be able to swim

### Crossings in Snowy Conditions

#### Rivers
- Avoid if possible, particularly deep water
- Treat with extreme caution if you have to cross
- Beware extremely cold water conditions, snow banks collapsing at entry and exit points and iced over rivers
- Check entry and exit points are safe before entering water
- Remove skis before entering water. Carry by hand or preferably attached to pack
- Check pack shoulder straps loosened and waist strap are undone before entering water
- Use stocks to aid balance during crossing
- Always wear boots

#### Creeks
- Consider and check the possibility of ‘jumping’ small creeks
- If so, throw pack, skis and stocks onto other bank before jumping
- Beware skis sliding back into creek. Use a person on opposite bank to prevent this

### Snow Bridge

- Check suitability and safeness of bridge before crossing on skis
- Choose a bridge whose width can be spanned by the length of skis
- If safe to cross release ski safety straps, take hands out of stock wrist straps, and undo rucksack waist band
- Only one person at a time to ski across bridge (Fig. 1C)
- Beware overhanging snow banks and possibility of bridge collapsing
- Beware danger of fallen person being swept under a snow bank or a snow tunnel

**WEAR GAITERS**

Gaiters that snugly cover the upper instep of your boot, and come up to your knee are surprisingly effective at reducing the amount of water that enters your boots when crossing shallow water courses. They also significantly reduce your boots from getting wet when walking through long grass during heavy dew as well as protecting your lower leg against scratches and scrapes.

**DON’T GO BAREFOOT**

Other than for the shallowest, sandiest bottom river crossing, taking your boots off is a really bad idea. Cold water can cause you to rush to complete the crossing, stumbling and slipping on rocks, increasing the risk of cutting or bruising your feet or even worse losing balance and falling fully into the water and being swept away. Your hiking boots will protect your feet from damage, give you good grip and for the time taken for most crossings the retained heat in the boot will reduce the pain from the intense cold. If you are adverse to getting your boots wet, carry a lightweight pair of fully enclosed water shoes with good grip to protect your feet from cold & rocks.

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Alpine climbing isn’t an easy task and requires resilience, determination and physical strength. Before you tackle an alpine climb, you will need to prepare your body and mind for the challenges you will face.

**Altitude Preparation**
When climbing, you will be reaching high altitude levels which affect the human body and its performance. High altitude can result in dizziness, exhaustion and dehydration due to the lack of oxygen that is available as you ascend. This can be quite a shock to someone who has never climbed at these levels before, so if it is your first time ensure you are well prepared and train at an altitude chamber facility. These facilities offer rooms that can decrease the oxygen levels to match those you would experience at higher altitudes. Altitude chambers provide a safe place for you to see how your body will cope under pressure. Some handy tips to help your body acclimatise are time and hydration. Give your body as much time as possible to react to the changing altitude and stay hydrated by increasing your typical water consumption.

**Weight Training**
As you get higher in the mountains, your load weight tends to feel heavier. Along with that, you must carry all your alpine climbing gear throughout the entire trek. Prepare for the strain on the mountain by physically training with a 20-25kg pack. If you want a more realistic training experience, try walking on sand with the weight pack as this mimics the texture and restraint of snow. You can also walk up and down stairs with the extra weight to strengthen your body for inclines. Push yourself harder prior to the climb to ensure you will cope with the weight of your climbing gear and other camping equipment.

**Nutritional Tips**
As with any physical activity, pack a large supply of healthy snacks to last you the trek and some extras in case it takes you longer than expected. Consuming these snacks will provide energy and will help keep your body warm and strong throughout the entire climb. To get your full dietary requirements, use protein powder to get your protein portion, green powder as your vegetable source and berry powder to help with immunity. For extra help with the altitude adjustment, we tried some herbal supplements like Ginkgo Biloba and Panax Ginseng.

**Training Tips**
You can’t expect to be ready for alpine climbing after a few weeks or a month of training. Completing an alpine climb is hard work and is physically demanding. Training hard and training correctly is crucial to ensuring you complete your climb safely and with your health still intact. Using the SMART framework as your training method is a great way to set realistic goals and achieve them.

**S** - Specific

**M** - Measurable

**A** - Achievable

**R** - Realistic

**T** - Timed

If you want to complete an alpine climb, you are the only one that can motivate yourself. Set a date and work towards it every chance you get, training harder and harder as the climb gets closer. Completing an alpine climb isn’t just an average outdoor activity. It requires months and months of dedication, sacrifice and preparation, and requires physical and mental strength.

Before you jump straight into tackling an alpine climb, train hard and make sure your body and mind is ready. These training activities helped us prepare for our Aconcagua climb and improve our body’s ability to cope with the intense conditions on the mountain.

words by Mountain Designs
1. Check the Forecast
A simple but important thing to do is check the forecast. Check the temperatures, wind chill and weather predictions for the day you’ll be hiking.

2. Use Dry Bags and Dry Sacks
Dry bags/sacks are the easiest way to transport your belongings when it’s rainy outside. The flexible containers have a watertight seal, ensuring that everything from food and clothes to electronics are protected.

3. Always Carry a Rain Cover for Your Pack
If you are setting off for a multi-day adventure and the forecast says there is a chance of rain, pack a rain cover for your pack. A lot of hiking packs come with waterproof covers stored in a hidden pocket but you can also buy them separately.

4. Pack Zip Lock Bags for Your Phone and Electronics
Keep your phone, electronics and travel documents safe in zip lock bags from your local supermarket. Zip lock bags come in handy for rainy weather and just in case you have a spill in your bag.

5. Look After Your Extremities
Maximise your warmth with a beanie, gloves, warm socks and a neck gaiter. These are small and easy to pack away if you don’t need them, but can make a big difference if it’s chilly outside.

6. Wear Quick Drying, Breathable Clothing
Whether it’s rainy or sunny, quick drying and breathable clothing will help you stay comfortable. Avoid heavy fabrics that will cling to your skin and prevent airflow. Instead, opt for lightweight fabrics that won’t make you hot when it’s sunny and won’t make you cold when it’s rainy.

7. Don’t Sweat It
Be aware that sweat will bring your temperature down because it’s your body’s way of cooling off. If you start to sweat, take a layer off. While quick drying, breathable clothing will help for a short period in light rain, a breathable rain jacket will be your saving grace when it gets heavy. A breathable rain jacket will keep the rain out and prevent condensation build up from body moisture.

8. Layer Your Clothing
Learn how to layer properly to maximise your warmth and comfort on the trail. The Mountain Designs How to Layer guide takes you through each step if you’re not sure where to start. Here’s a brief run-down of each layer:
- **Base layer:** This layer manages moisture and heat. You’ll want to choose a material that is breathable, moisture wicking and warm.
- **Mid layer:** This is used to protect you against the wind and keep you dry. Your mid layer should also be breathable and moisture wicking while protecting you from the wind.
- **Outer layer:** Your outer layer is a shield against the rain and wind. This should fit comfortably over your base and mid layer without being too big.

9. Choose Waterproof Shoes
Waterproof shoes help prevent blisters and keep your feet comfortable when you’re hiking in rain. You can also get gaiters to slip on over your shoes to protect your legs from harsh weather conditions.

10. Don’t Apply Waterproof Wax or Grease to Your Shoes
Whatever you do, don’t apply waterproof wax or greases to your shoes because it affects breathability and causes body moisture to build up. Different types of shoes and materials require different steps to care for them. Before purchasing a shoe, read the tag information or talk to the staff to understand the recommended care instructions. For more information check out our guide to caring for your shoes and boots.

11. Pack Extra Socks to Keep Your Feet Dry
If you know in advance that conditions will be wet, pack extra socks so you can switch out your wet ones for dry ones to keep your feet warm and dry.

12. Pack an Extra Tarp for Camping
Put a tarp over your tent or swag for overnight protection, and if you have a second one, pop it underneath your gear on the campground floor. If you can keep your gear as dry as possible by using tarps, it’s easier to set up, pack up and keep moving without the weight of wet gear and mud weighing you down.

13. Don’t Set up Camp Under a Tree
It might seem like a good idea to set up camp under a tree but it can be potentially dangerous with falling branches and lightning. Instead, find a clearing in the trees and camp there, using your tarp for protection.

14. Pack a Cooking System
Go without the hassle of making a fire by taking a portable cooking system. They are small, compact and great for cooking up a satisfying hot meal in wet weather.

15. Stay Hydrated and Eat
Your body uses up energy to stay warm in the cold. It’s important to drink plenty of water and choose energy-high foods such as jerky, nuts, dried fruits and bread to compensate.

16. Take a Thermos to Use as a Hot Water Bottle
Fill your thermos with hot water and bring it with you to use as a hot water bottle during your wet weather adventure. Staying warm is key to avoiding becoming sick in cold, rainy weather. Plus, a hot cup of joe can never go astray when camping or hiking in the rain.

17. Take Short Breaks
The longer your break, the colder you get. It’s as simple as that. If you do need a longer break to recharge, put on another layer until you start moving again.

18. Take Microfibre Towels
Microfibre towels are lightweight, compact and practical. Whether you’re wet from the rain or you’ve had a shower, microfibre towels quickly absorb water and dry efficiently so you can use them again a.s.a.p.

Don’t let cold weather hold you back – use these simple tips to improve your winter hiking experience.
Knowing how to light a campfire is an essential skill—here’s how to do it the good old fashioned way.

Starting a campfire is easy right? Well, not for everyone. If you don’t get the basics right it will be frustrating for everyone when it dies quickly after lighting or when you run out of dry wood after dark. Then again you might find yourself in an emergency situation, have wet matches or lose a lighter. Knowing how to start a fire in a variety of conditions is important. Let’s start with the basics.

Fire pit setup
Build your fire around 10m away from your campsite. Check for overhanging branches that could catch fire, dig a pit about 10-15cm deep and surround the fire pit with rocks (if you can). Then go find 3 types of dry wood:

- Tinder (small easily flammable, quick burning twigs, leaves, coconut husk fibres etc)
- Kindling (short sticks with a diameter between a 10c and a 20c piece)
- Fuel wood (bigger chunks of slow burning wood)

Teepee build
Now you’re ready to start building your fire fuel. There are a few ways to do this and it could start a camp debate but a tried and trusted method is the teepee build which goes like this:

- Build a teepee of kindling around a small fist sized bunch of tinder
- Add more wood to the downwind side. Leave an opening on the upwind side (so you can light the tinder).
- Keep space between for the wood to breathe—it needs a steady flow of oxygen.
- Get the big fuel wood and place it around the edge of the teepee, in a parallel 2 x 2 formation.
- Light it by standing upwind of the fire (see 3 methods of lighting below)
- Keep adding tinder as necessary till the kindling is alight
- Keep adding kindling till the fuel wood is ablaze.
- Once you have your fire pit and teepee build ready—it’s time to light it.

Lighting your fire

Regular Fire
If you have matches or lighter, use them. Job done.

Swedish Firesteel Fire
This is a cool piece of kit for lighting a fire or gas stove in the wet, at altitude or in the snow. Developed by the Swedish department of defence, Swedish Firesteel is able to create sparks at 3,000 degrees celsius. It’s really simple to use—just strike it so that sparks shoot towards your tinder and away you go. If you are having trouble with lighting the tinder you can gently scrape some of the metal shavings into a little pile within the tinder. Then you hit the shavings with sparks and they all ignite giving you a strong collection of firing sparks that should get your tinder going.

Survival Fire – Two sticks
This is something you may need to do in an emergency situation but is worthwhile practising next time you go camping.

Grab two very dry sticks of the same type, preferably from the same branch or tree. Fashion one into a shorter thick ruler shape with a sharp stone. Make sure the other stick is much larger and wedged firmly to the ground under your body weight and between rocks (if possible). This piece of wood has to stay straight and still. Rub the shorter ruler shaped stick back and forth on the larger stick. Start slowly, till you see it start to blacken. Then you add more pressure, and rub the sticks harder and faster, back and forth, until you get steady smoke and see some blackened ember style smoking wood. You then want to add this to your driest, easiest to ignite tinder (old dry coconut husk fibres work great). Gently find the right balance between wind and tinder, eventually, if you don’t smother it or blow it out, you should have flame!

There you go—fire!
A well packed backpack can be the difference between pleasure and pain in the wilderness.

Load your pack with the gear you expect to use on different trips just to see how it fits and how the comfort level of your pack changes when your packing is configured differently.

Generally, it is best to find a way to get everything inside of your pack to best protect your gear from damage and water. If you're going to carry it around, you should make sure it will work at the best of its ability when you need it.

Some helpful tips when loading your pack:

1. Pack sleeping bag in its stuff sack at the bottom of the pack!
   - It's the last item you will need each day!
   - Soft bulk of the bag won't dig into your body!
   - Provides firm platform on which to load your other equipment!
   - Functionality of sleeping bag is essential—should always be protected!
   - Don't strap it to the outside of your pack where it's not protected!

2. Fold sleeping mat and load vertically against frame on inside of pack!
   - Helps prevent contents of pack from digging into back!
   - Alternatively, you can roll mat loosely around interior of pack—aligning it with your other items present!

3. Pack heavy items towards frame of the pack!
   - Allows you to walk upright!
   - Stoves, fuel, food, and similar items placed here!
   - Try to keep weight central!

4. Large/Heavy gear (tent) should be arranged near to your back!
   - Should be at shoulder height or lower!
   - Can be compressed by using compression bags to reduce the bulk!
   - Having tent easily accessible is convenient when you stop to set up camp!

5. Utilise all available space!
   - Pack small items such as underwear or socks inside other items or fill the voids between bulky items!

6. Gear which is needed frequently or quickly should be easy to access!
   - Lid pockets and back pockets are perfect for these items (snacks, gloves, cameras, map, compass, first aid kit, rainwear)!
   - Small items can be organised together to keep them in one easy to find place!
   - If items are fragile they can be placed into padded cases to keep the safe!
   - Pockets are the least waterproof areas of the pack—use Ultralight Dry Sacks to protect your gear!

7. Try to avoid attaching equipment to the outside of your pack!
   - Very easy to damage or lose gear outside of your rucksack by snagging it on dense scrub!
   - If you're travelling using a travel-pack, gear hanging off the outside of the pack is an easy target for thieves!
   - Can be damaged or lost during handling!

8. Skis!
   - Best carried on pack by lashing them to the sides with compression straps or straps in plastic lash tabs!
   - Secure them tightly to the pack as they are prone to shift while walking!

TIP
Keep your pack organized and put items back where you expect to find them. Repackage to reduce weight. Pour liquids into smaller containers. Don't bring the whole plastic-wrapped box of 12 energy bars when you'll only eat 2 and need one more just in case.
If your planning on heading out into the wilderness, be sure to read these tips on choosing a campsite, your home away from home.

GROUND SURFACE
Where you choose to sleep will arguably be the most important decision when picking your camp site. Finding a spot with flat ground to pitch your tent is critical. If not you may find yourself waking up in the middle of the night crammed against the tent wall and entirely off your sleeping mat which I guarantee is not the most fun way to wake up for you or your tent buddy. If a perfectly flat spot is unavailable look to position the tent so your feet are on the downward slope.

Making sure that your flat ground is even is also important. Even ground with no lumps or hollows will help you get a good nights sleep so you can wake up fresh as a daisy the next morning. In a perfect world flat areas could be covered in grass or sand.

SHADE
After flat ground for pitching a tent, shade would be the second most important factor when choosing a camp site. Having permanent shade throughout the day isn’t necessarily. But shade in the morning is a real bonus. Being awoken before 7 a.m. by a scorching hot in your tent is, fairly unpleasant. Try and choose a spot where you can get a bit of morning shade and it will make for a nicer wake up after a hard days hiking.

LOOK ABOVE YOU
Always look above you, when picking a camp site for the sake of your own safety. You should never pick a tent site beneath a dead tree branch. Same goes for rockslide and avalanche paths, as well as pitching a tent beneath a loose rock ledge.

WHAT’S AROUND YOU
Not only is it important to think about what’s above you, it’s also a good idea to look at what’s around you. You may not want to be camped right on the water’s edge due to bugs in summer or flooding risk if there is heavy rain up stream. However it does help to be relatively close to a water source so you’re not lugging water to far back to your camp site.

If your expecting high winds, consider setting your tent behind a windbreak such as large boulders, bushes or if in the snow build a small wall and dig in. Its not a fun experience to be caught on flat open ground during a heavy winds.

Finally, consider the impacts of your camp. If you find yourself in a spot that looks like its been used already, your overall impact will be less than if you create a brand new spot.

CAMP LAYOUT
With ground surface, shade, and location organised, it’s now time to discuss the layout of your camping area. If you’re out hiking and pitching a single tent, there’s not much need for a lot of space. However, if you’re with a larger party and lots of gear, you’ll need to find yourself a bigger spot. Tent space and cooking space are obviously two of the most important spatial factors.

If grim weather is expected a lightweight tarp that can be used as a shelter for cooking and a more comfortable place to hangout and be social. The tarp can also be used for shade if no trees are present or as a quick shelter in case of emergency.

If there are no set toileting areas make sure you abide by the rules of carrying a trowel and deposit solid human waste in cat holes dug in the topsoil – usually 10-15cm deep and at least 100m from water, camp and tracks. Cover and disguise the hole when finished.

When choosing your own camp site, it’s important to just keep in mind what exactly you’re looking for. The number of people, activities, trail access, nearby water sources and if you combine all of these you will create your perfect camping spot. With all this knowledge in mind now its time to head into the great outdoors and enjoy the cooler camping weather in comfort.
**Shoulder Rolls**  
Targets all the muscles of the shoulder

- Stand tall, as if there was a string attached to the top of your head, and someone was pulling up on that string.
- Perform slow shoulder circles 10x forward, 10x back.
- To increase the range of motion, place hands on shoulders and draw big circles with the elbows each direction 10 times.
- Never push to the point of pain.

**Standing Chest Stretch to Back Extension**  
Targets the front of the upper body and spine mobility

- Stand tall with your abdominal’s pulled in and knees soft.
- With your palms facing up, open up your arms as much as you can; keep pressing your shoulders down away from your ears.
- Hold position for about 20 seconds.
- From arms open, slowly raise arms overhead with your chest lifted; Keep contracting your abdominal’s to protect your lower back and your knees are soft.
- Hold this position for about 20 seconds and continue to breath into the extended position.

**Quadriceps Stretch**  
Targets front of the thigh

- Stand tall with your abdominal’s pulled in, chest open, and shoulders pressed down away from your ears. Hold onto a stable surface for balance (tree, car, fence, etc.).
- Hold onto your right foot with your right hand; your knee should be pointing straight down.
- Your standing leg remains soft (don’t lock out your knee).
- Hold the stretch for 20-30 seconds; repeat on the opposite leg.

**Standing Hip Stretch**  
Targets hips and glutes

- Hold onto a stable surface for support. Cross your right ankle over your left knee (as if you are sitting in a chair).
- Push your hips back, keeping your chest open, and your spine straight.
- You will feel the stretch through the right side of your hip.
- Hold the stretch for 20-30 seconds; repeat on the opposite side.

**Inner Thigh Stretch**  
Targets the inside of your thigh

- Stand with your feet wider than your shoulders. You can hold onto a stable surface for added support.
- Take a mini step forward with your right foot, lean into the right side by pushing your right hip back (your right knee should stay back over your toes).
- Your left leg stays straight; continue to drive down through the left side of your hip to increase the stretch through the left inner thigh.
- Hold the stretch for 20-30 seconds; repeat sequence with the left leg forward.

**Hamstring Stretch**  
Targets the back of the thigh

- Place your right foot on a higher surface where you can comfortably stretch your hamstrings; your left toes (on your standing leg) should be pointing forward.
- As you slowly lean forward and reach for your right foot, only go to the point where you feel the muscle stretch. You don’t want to feel any pain; if your breathing gets shallow, you are probably pushing too far.
- Hold the stretch for 20-30 seconds; repeat on the other leg.

**Calf Stretch**  
Targets the back of the lower leg

- Stand facing a tree or other stable surface.
- Step back with your right foot, pressing your right heel down. Your toes should be pointing forward.
- The left knee bends, but position should feel comfortable.
- Hold the stretch for 20-30 seconds; repeat on the other leg.

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**TIP**

If your hands swell while hiking, raise them. Hold onto your pack shoulder strap for awhile and see how that helps. Use hiking poles to keep your hands elevated a bit and keep the muscles active.

This will help prevent swollen hands.
Most of us master shoe-tying in primary school and don’t give our laces much thought after that. If your hiking boots start to wear on your feet in uncomfortable ways, though, you’ll be glad to learn a few new lacing tricks that could help improve your comfort. Here are three simple ways to re-lace your boots to help relieve foot discomfort.

**Surgeon’s Knot:**  
Simple and versatile, it can keep your heel from slipping.

**Window Lacing:**  
Alleviates pressure points on the top of your foot.

**Toe-Relief Lacing:**  
A stopgap remedy to get you back to the trailhead.

**Surgeon’s Knot:**

To prevent heel slip

When your heel is slipping excessively as you hike, you probably have too much interior volume at the top of your foot. Cinch down your boot and hold it in place with two surgeon’s knots: Once secured, these hold fast where they’re placed and won’t work themselves loose.

1. Pull out any slack in the laces, snugging the boot over the top of your foot.
2. Locate the two pairs of lace hooks closest to the point where the top of your foot begins to flex forward; you’ll be tying a surgeon’s knot at each of these pairs.
3. Wrap the laces around each other twice, then pull them tight; be sure to run the lace directly up to the next hook to “lock” in the knot’s tension.
4. Repeat Step 3 at the next highest set of lace hooks.
5. Finish lacing the rest of your boot in your usual way.

**Window Lacing:**

To prevent top-of-foot pressure

If your well-tied boots start to create a pressure point on the top of your foot, window lacing (aka “box lacing”) can help alleviate the problem:

- Unlace the boot down to the hooks that are just below the pressure point.
- Re-lace by going straight up to the next hook and then crossing the laces over.
- Finish lacing the rest of your boot in your usual way; alternatively, you can tie a surgeon’s knot at the lower and upper edge of your window for a snugger hold.

**Toe-Relief Lacing:**

To prevent toe-box pressure

If your toes are in a world of hurt, this stopgap measure can help you make it back to the trailhead. This trick works by relieving pressure in the toe box:

- Completely unlace your boot.
- Lace it back up - but skip the first set of hooks; this opens up the toe box and takes some pressure off your digits.

If your toes always hurt when you hike, it’s time to get a different pair of boots. A footwear specialist can fit you in boots that will give you just the right amount of wiggle room.

**Always carry a spare pair of laces to suit your hiking boot. You just never know when you might need them.**

words by REI

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When heading out on a hike you will generally fall into one of the following categories:

- **Hiking solo**
- **Hiking with hiking friends**
- **Hiking with a group**, some who might be friends
  but there will often be hikers who are new to your group or new to hiking.

A regular problem that can occur in larger hiking groups is that the group can easily spread out as the hike progresses. Some of your party will get chatting, some will stop to take photos, some are faster over rocky terrain or rock scrambles, some are simply fitter than others and can maintain a faster pace. Inevitably, a gap between the lead and whip of your group opens up and the main role of the group leader is to make sure that the gap doesn’t get so wide as to become unmanageable to the point where one part of the group can’t locate the other.

Whether you hike with hiking friends or with a large group this is a potential challenge that you need to prepare for.

**Hiking Solo**

It is not recommended, by various authorities, that you hike alone for obvious reasons such as safety and survival. However, deciding to hike solo or not is completely your decision to make and a decision you should not take lightly. I won’t cover all of the recommendations for solo hiking here as this article is about keeping your hiking group together. What I will say is that you need to plan, plan, plan and be realistic about your skills, pain threshold, endurance, and what you enjoy. If group hiking is more fun, stick with that.

**Hiking with Hiking Friends**

Hiking with friends can be a very rewarding experience. You get to share something you enjoy with your friends and will often form strong bonds due to your shared love of the outdoors and the time you spend together in it.

When hiking with friends it is likely that you all share a similar skill set, fitness and endurance as these are often the things that created the initial attraction between you. Hikes are more enjoyable when everyone travels together and appreciate the same style and difficulty of hike and that enjoyment is generally the seed that the development of your friendship. Even if you don’t all share a similar pace or endurance you will know each other’s skill set well enough to understand when you need to offer assistance, when you need to wait and when you need to slow down in order to keep together as a group.

There will always be members of your group who have a few extra gears when it comes to ascending or descending hills or are more confident over uneven terrain and rock scrambles. This is generally not an issue when hiking with friends who hike regularly as you will be aware of the groups strengths and weaknesses and will accommodate every member of your group accordingly.

When I head out with friends we are generally in a group of anywhere from two to ten. Someone always takes the lead for a particular hike, generally based on who thought of the hike and who did most of the planning. It isn’t always that formal though and if someone has a route idea, we all head out and assist with the navigation and leading. We all have appropriate gear and are all reasonably good at navigation so if the group spreads out because some members want to push themselves a little harder or someone wants to stop and take photos or drop back for a chat, that’s an issue as we all follow a few simple rules. Stop if someone needs the toilet and wait at every trail junction or at the end of every ascent or descent. It is these rules and understanding of them that keeps our group together and something I believe everyone should practice when hiking with friends.

**Hiking with a Group**

When you are hiking in a group it is a much more formal affair. There should always be a nominated leader and a whip (skilled hiker at the back to help keep the group together). This should always be the case as there will be members of your group with varied abilities, experience and levels of fitness. A lot more planning and pre-hike checking needs to be undertaken if this is to be a successful hike. Unfortunately, it is not uncommon for people to sign up for hikes that are not within their level of fitness and experience. People will turn up with the inappropriate gear for a particular type of hike and will not be carrying adequate water for the temperature, distance and difficulty of the hike.

All of these type of things could of course lead to issues on the trail so a lot more diligence and policing is required by the group leader. Group hikes may also have greater numbers which can be anything up to 16 people; the recommended maximum number for environmental, safety and group management reasons. There should always be at least one leader who is responsible for navigating the route and setting the pace and usually a whip, depending on group size, to shepherd everyone from the back of the group and ensure that no-one strays and avoid large gaps from developing. This role of the whip becomes even more important as the weather changes as in bad weather they will need to ensure that the group keeps tighter together.

As a leader it is important that when promoting your hike to the group you correctly describe the hike, the grade, expected time to complete as well as any requirements such as hiking poles, wet weather gear, volume of water to carry etc. This will assist in managing people’s expectations and will hopefully encourage them to only sign up to hikes they are suited to.

It is a good idea to insist that newbies start on a few lower grade hikes so the group leaders can get a feel for the person’s abilities and fitness before allowing them to sign up for longer, more challenging hikes. The person can then confidently sign up to a higher level hike if they are really fit as that will be evident on their first time out. Many hikers are involved in a number of hiking groups and it is important to note that not all groups grade or manage their hikes the same. What will be graded as 3 (moderate) in one group might just be a 2 (easy) or 4 (difficult) in another group. The reason for this is that not all hikers follow the approved grading system and base the level of difficulty on their own personal abilities, not that of the group.

While grading hikes is my recommended practise, it still doesn’t prevent the group from spreading out on the trail. When your group is larger and filled with hikers you don’t know it can be very easy for one or more large gaps to form, as mentioned earlier.
So what can you do?
On most group hikes the faster paced hikers will break out in front and set their own pace. Quite often they will even pass the leader of the group and create a large gap between them and the following sub-group. As a leader it often just seems easier to just let people go at their own pace as you want everyone to enjoy the experience. What this does though is makes the slower hikers feel inadequate and leaves them feeling annoyed and frustrated with themselves and the group. If they lose sight of the group, they may even start to panic as their navigation skills and confidence in the bush might not be great. It will also leave you feeling frustrated with them that they aren’t keeping up the pace and you may even start wishing they had never joined your hike.

The solution is to plan your hike for the slowest person. One that is suitable for everyone in your party and let the slower person set the pace. You can still lead the hike directly behind them and offer words of encouragement and assist them in learning how to navigate the trail. You might not know how slow they will be during the pre-hike planning so ask questions as they sign up to the hike. If you don’t find out until you are on the trail, then be accommodating enough to adjust your plans, pace and route (if need be) accordingly. There is nothing more frustrating and potentially dangerous than a slow hiker falling behind the group.

The benefit of the slowest person leading is that all other people in the group, even if they are busy chatting or taking photos, will be more than able to keep pace and the group will remain together. There is of course a downside when you employ this tactic as you may stop the group from splitting up, but will quite likely aggravate a large portion of the group who would prefer to be hiking faster. If they are constantly having to reel in their pace to stay in line with slower members at the front, they may not be happy and quite possibly not enjoy the hike. I always struggled with this as a group leader as I wanted to please everyone. The reality is that when you lead a hike not knowing everyone’s capabilities you have to focus on group management and safety as your primary concern. If the group stays together that is a lot more important than keeping everyone happy. The slowest person will appreciate you considering them and as they hike more their fitness and pace will also improve.

Using the tactic of the slowest person at the front does present a trade-off. Ideally the grading and description of your hikes eliminates this problem but the reality is that it won’t. When you place the slower members of your group at the front you should not allow them to dawdle. Continually encourage them to walk at a pace that is challenging enough for them but comfortable for everyone else. Show them that you are being mindful of their ability in the hope they will be respectful of that of others.

If faster members insist on pushing forward out of frustration and gaps do form, then pull your group together regularly so that you are having short rests often rather than making the faster paced hikers wait for ages for the slower members to catch up (this is particularly important in cold weather). If you do need to keep a large group much tighter due to a challenging route or poor visibility, putting the slowest people up front alongside the leader and issuing a strict instruction to everyone else to stay behind and in touch with the lead group, should go a long way to making your role a little easier.

A few final tips on keeping a group together.
• Before I commence any hike, even with friends, I always tell people to keep sight of the person in front of them. If they lose sight of the group, then call out so that the group can slow or stop to allow them to catch up. This is particularly important in bad weather or dense bush where only a few metres can make all the difference.
• If anyone needs to stop to go to the toilet, make sure you tell someone before you stop and always leave you pack on the trail at the point where you left. This will allow your group to stop a little down the trail to wait and to easily locate you if required.
• Conduct a head count at the start of the hike and at regular intervals along the trail. I generally do this at every trail junction so if someone is unaccounted for you have a better idea of how far back they will be.
• Instruct all members that if they do fall behind and lose sight of the group that they should continue in the direction of travel until they reach the next trail junction then wait for the group or the group leader to return.
• As a leader you need to be able to concentrate on navigation and the last thing you need is to have to locate a lost or wayward hiker who has fallen behind the group. My advice is to keep everyone together and keep everyone safe.
Regardless of where you are in the wilderness, water is your most valuable commodity. If you have a good supply of water and you get lost or stranded, you’ve massively increased your chances of surviving long enough to be found by search teams, or to make it out alive on your own. If you don’t have water, you are going to need to find some, quick.

**Finding a natural water source**

When searching for an unknown water source the first step is to gain altitude. Climbing a ridge line, or even carefully climbing a tree is a great way to survey your surroundings and potentially locate a natural source of water nearby. From your raised vantage point, you also increase your chances of spotting birds and other wildlife.

**Water in coastal areas**

Fresh water can always be found along the sea coast by digging behind the wind-blown sand dunes which back most ocean beaches. The dunes trap rain water, which floats on top of the heavier salt water, filtered in from the ocean. Dune wells must be deep enough to uncover the top 5 cm of water only. If dug deeper, salt water will be encountered and the water from the well may be brackish and undrinkable.

Where cliffs fall into the sea a careful search along the lower edges of the cliff will generally disclose soaks or small springs. These in general follow a fault in the rock formation and will be evident by a lush growth of ferns and mosses.

If you cannot spot water directly, wildlife is your next best indication of water.

Certain species of wildlife will never stray far from a reliable source. Learning to read their movements, whether by actually seeing the animal moving through the wilderness or by following game trails, is a vital skill for anyone hoping to find water in the wild.

**Following animals to find water in the bush**

Wherever you are in the world, there will be wildlife. Depending on your surrounding environment, it may be more or less difficult to spot signs of animal movement. It can be easier to spot wildlife in the desert because it’s so flat. Gaining altitude gives you a distinct advantage if it is possible to do so.

In the High Country, you’ll likely find it more difficult to spot evidence of wildlife, but, you have the advantage of an undulating terrain. If you head downhill there is usually a good chance that you will find running water.

Look closely for evidence of game trails. Fresh droppings alongside paw prints or hoof prints heading downhill almost certainly lead to water.

**Bees**

Bees in an area are a certain sign of water but you will probably have to look for further indications before you actually find the water supply.

**Ants**

If you see a steady column of small black ants climbing a tree trunk and disappearing into a hole in a crotch between branches it is highly probable that there will be a hidden reservoir of fresh water stored away there. To get the water enlarge the hole with your knife-point at the top. Make a mop by tying grass or rag to a stick. Dip the mop into the water and squeeze into a cup.

**Mason flies**

Large, hornet-like creatures that are a certain indicator of water. If you see mason fly’s buildings in an area you can be sure that you are within a few hundred metres of a soak of wet earth.

Search around carefully and you will see the mason fly hover and then suddenly drop to the ground. Examine the place where it landed you will find the soil is moist. By digging down at most a couple of feet you will find clear, fresh, drinkable water.

**Birds**

All grain eating birds and most of the ground feeders require water. If you see their tracks on the ground you can be reasonably certain that there is water within a few kilometres of your location. An exception to this are parrots and cockatoos, which are not regarded as reliable indicators of water. With the approach of dusk, most grain eating birds will head for a water source to drink their fill before slowly flying back to their nesting places.

The carnivores, being flesh eating birds, get most of the moisture they require from the flesh of their prey. Consequently they are not reliable water-drinkers. Do not regard the presence of flesh-eating birds as an indicator of water in the area, nor should you regard water living birds as indicators of fresh or drinkable water.

**Mammals**

Nearly all mammals require water at regular intervals to keep themselves alive. Even the flesh eaters must drink. Mammals can go for long periods without water, and therefore, unless there is a regular trail or a series of converging trails you cannot always be confident of finding water where you see animals tracks.

Certain animals never travel far from water. A fresh track of a wild pig is one sign that there is water in the vicinity. The fresh track of kangaroos and most grazing animals, whose habit it is to drink regularly at dawn or dusk, should lead you to water if you follow converging trails downhill.

**Reptiles**

Most of the land-living reptiles are independent, to a very large extent, on water. They get what they require from dew and the flesh of their prey. Consequently they are not an indicator of water in the area.

**Alternative sources and techniques**

There are a number of water procurement techniques: collecting water from plants, tree roots, fish, salt water, collecting dew, collecting water by transpiration. All of these require knowledge of the techniques and time and they may not produce the volumes that you need, particularly for a group. There is a distinction between gathering water and finding a water source and your best bet is to find water.
Navigation is one of, if not, the most important skills you can learn for hiking.

Hiking is a relatively safe outdoor adventure but it is only safe if you are prepared. The most basic element of you ‘being prepared’ is knowing where you are and where you are going.

The most common cause of ill-fated hiking trips is people getting lost so it is important to know how NOT to get lost and what to do if it does happen.

Rather than detail all the various tools and methods for navigating the trail here I have prepared a guide exclusively for navigation.


In this guide I have covered the following topics:

- HOW TO USE A MAP
- GUIDE TO COMPASS USE
- PC ROUTE PLANNING
- HOW TO USE A GPS
- TIME AND DISTANCE PLANNING
- PAYING ATTENTION
- NAVIGATE BY MOONLIGHT
- NAVIGATE USING THE SUN
- GETTING LOST

My advice; learn how to read a map and use a compass and always carry them, in a waterproof pocket, with you on all your hikes.
Engaging Event Technology and Creative Services

Our mission is to enhance your events by providing the tools to create meaningful connections.

We understand that event planning requires a budget conscious approach with effective time management strategies as they are often steered by volunteers and committees.

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