

safe & sociable mountain biking

Mountain biking is a great way to become and stay fit,

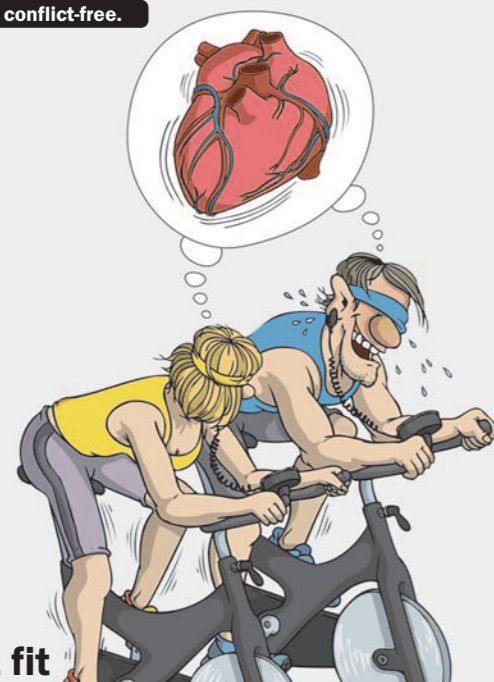
get you out into nature, have a good time and socialise.

The aim of the following recommendations from the Alpine

Associations is to make mountain biking safer,

nature-friendly and conflict-free.

1 ride healthy & fit



Mountain biking is an endurance sport. It makes your heart, circulation and muscles work hard, so being in good health and an honest assessment of your capabilities are required. Avoid having to rush and slowly increase the intensity and distances of your rides. Don't jump into it, exceeding your reserves of strength and stamina - it increases the risk of accidents and spoils the fun. If you have been out of training for a while, after a sickness or at an advanced age, an examination by a sports physician can help you assess your physical limits. And remember: Regular endurance and strength training make mountain biking more enjoyable as it improves your fitness.

2 plan carefully

Specialised magazines and books, maps, the internet and experts are invaluable for picking a tour appropriate to your level of fitness and abilities. Always tailor the tour to the group, the weather report and the current conditions. Be careful, solo riders: Minor incidents can turn to major emergencies. Pay particular attention to the weather forecast because rain, cold but also heat increase the risk of accidents. Mountain biking does not have a standardised rating for technical difficulties. In unknown terrain, start small to make sure you have reserves for any surprises. When riding with a group, all riders must be fit enough and up to the technical challenges of the tour: No need to push the limits of your physical and mental fitness!



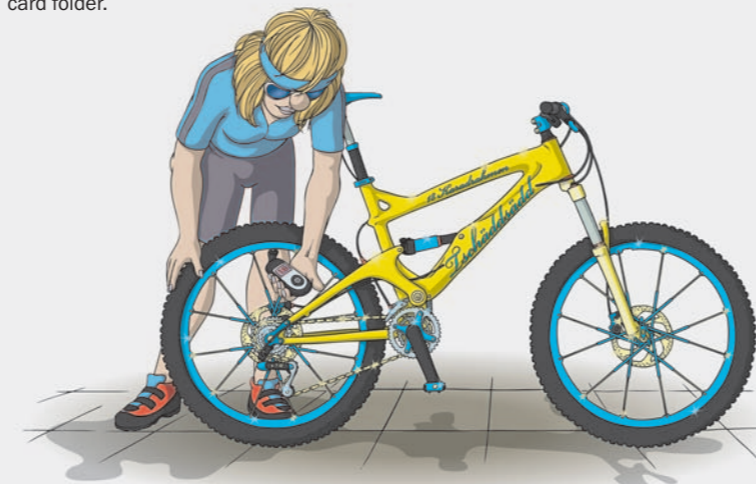
3 ride appropriate trails only

To avoid erosion damage, do not ride off-trail. Use only appropriate roads and trails and respect local closures and regulations in order to avoid conflict with land owners and fellow trail users. Cutting switchbacks, shortcuts and riding off-trail are taboo and "not cool" because they destroy our own natural playground.



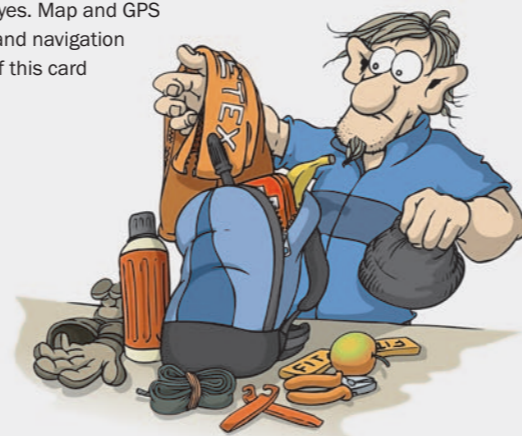
4 check your bike

Check brakes, air pressure, tightness of quick-release levers & thru axles (if applicable), suspension and gears prior to each ride. A yearly bike service by a specialist bicycle mechanic guarantees excellent working order. Pay attention to a body- and back-friendly seat position. The brakes and the chassis (fork and shock absorbers), especially, are technically complex components that you had better not tinker with. Prior to a big outing, a quick service makes sense. Should you nonetheless encounter problems, you'll maybe find some helpful advice on the back of this card folder.



5 come fully equipped

Warm clothing, rain gear against the wet and windy elements, repair kit, first-aid kit as well as a mobile phone (European emergency number 112), light and enough food and liquids should always be packed. Gloves and goggles/glasses protect your hands and eyes. Map and GPS are valuable orientation and navigation tools. Refer to the back of this card folder for more on gear.



6 always wear a helmet

Uphill and downhill, always wear a helmet! In case of a crash or collision, a helmet prevents head injuries or may even save your life. Body armour can also protect you from injuries. Make sure your helmet fits your head and check before each downhill segment that its strap is fastened. Back protectors are often integrated in modern mountain bike daypacks in order to prevent spinal injuries. Knee and elbow guards are recommended for technically more demanding trails. Consider that you descend logging roads riding a mountain bike often faster than by car - without a seatbelt and an airbag!



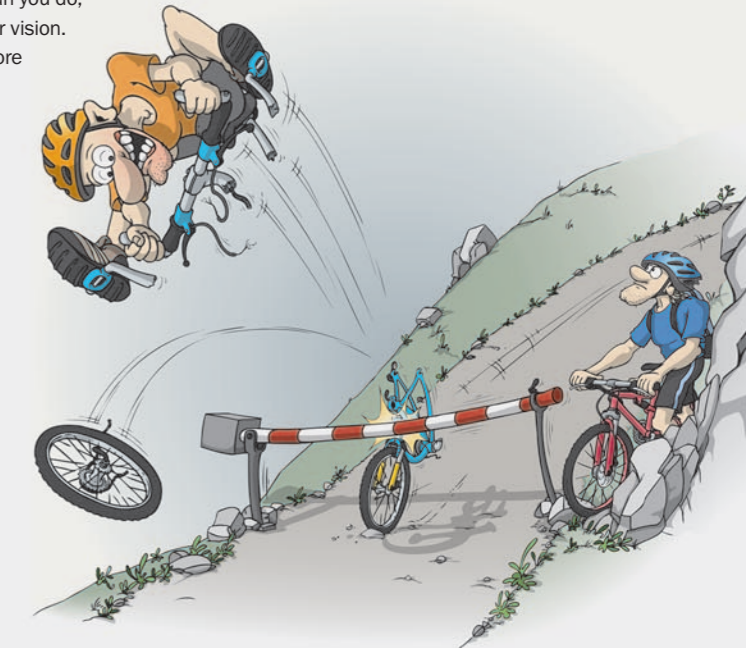
7 pedestrians have the right of way

Show consideration of pedestrians by announcing your presence as early as possible and slow down. If necessary, stop. A friendly greeting goes a long way and promotes acceptance. Ride in small groups and avoid trails much traveled by hikers. Be courteous, polite and respectful. Tell the hiker how many riders are behind you ("one/two/three more"). A "thank you" is particularly good for your karma.



8 control your speed

Adjust your speed depending on the situation. Be alert and have your fingers on the brake levers - unexpected obstacles can turn up anytime. Learn and practise smooth riding and braking technique in training sessions. Pedestrian and animals move at a slower pace than you do, so make sure you can stop within the range of your vision. Keep in mind that loose gravel makes braking more difficult than you think while at the same time taking longer to come to a halt.



9 leave no trace

Modulating your braking power keeps your wheels from locking up and sliding which would accelerate erosion and trail damage. Pack your garbage out and avoid noise. Gentle braking obviously is also relevant to safety. Learn and practice correct riding and easy-on-the-trail braking technique with experts in mountain bike training sessions. It should go without saying that you pack out your garbage - packing out trailside finds is particularly exemplary.

10 don't disturb wildlife

Wildlife feeds at twilight. Therefore, ride during daylight hours to avoid disturbing any animals. Approach animals at walking speed and close gates after you. Avoid sudden and quick movements. Be quiet in the woods and do not make any unnecessary noise.



help & advise

For great days out on the bike you do not

only need the appropriate equipment but

also the right bike fitting and adjustments.

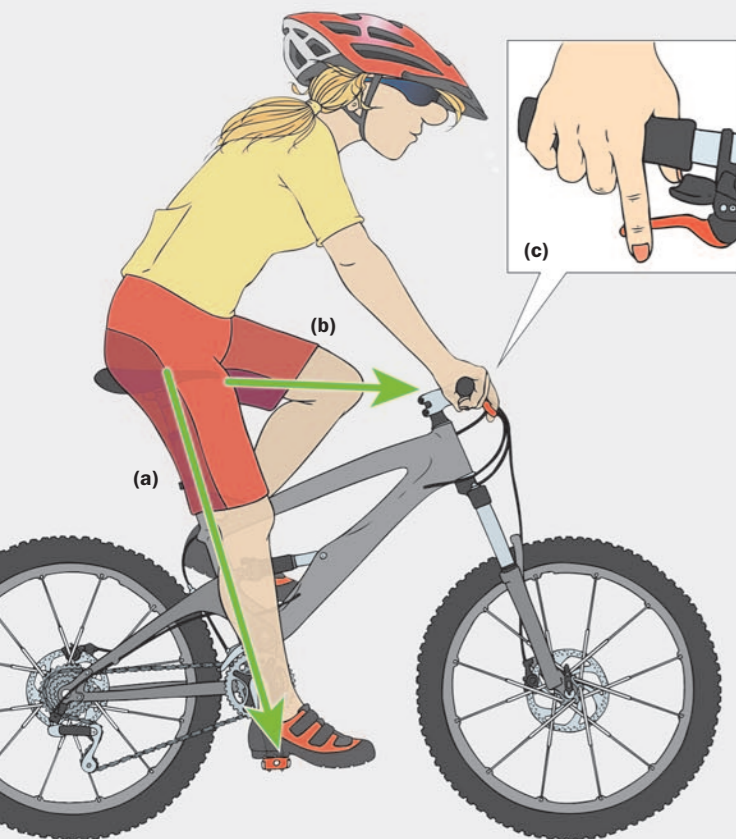
When you ride the great outdoors,

you leave civilisation behind - and that's a good thing.

In case of a medical breakdown on the trail, you should

have the skills to get your bike rolling again.

Correct bicycle fitting



fitting and adjustments

If the position's right, it's fun! Permanent back pain, a stiff neck at the end of the day or limbs that fall asleep - time to check your seat position!

seat height & reach

In order to set the ideal seat height, hop on the bike (pelvis upright) and position your heel on the pedal, cranks in line with the seat tube, your leg extended (a). If you press your heel down on the pedal (straight leg), your hip should not move. If it does move down, the seat position is too high.

Reach depends on the position of the seat and the center of the head tube and can be adjusted. The distance between the nose of the seat and the head tube should measure about the length of your forearm (b).

handlebar & controls

You want your levers to be in a comfortable position so that you can pull them using only the index finger. Rest your index finger naturally on the end of the lever, while the other four fingers are on the grip. Forearm - wrist - back of your hand - index finger should be aligned, the wrist should be in a neutral position and not bent (c).

Typical pains caused by bad fitting and adjustments

Numb toes: Did you fasten your shoes too tightly? Is the cleat in the correct position?

Knee: Is the seat height correct? Is the cleat in the correct position?

Buttocks: Check seat position and angle.

Back / shoulders: Does your backpack fit? Do your shoulders carry the load instead of your hips? Are your arms overextended? Riding with a hollow back?

Hands / wrists: Are your brake levers at the right angle? Are your wrists bent or do you wear a ring on your finger?

Head: Is your helmet fastened too tightly?

equipment check

Equipment is vital, especially for longer rides.

Communication, orientation & navigation, first aid

Did you bring your mobile phone? Tip: Add the number of a responsible person as your ICE (in case of emergency) contact.

Did you pack map, altimeter, compass, GPS and light?

What about your first-aid kit and a bivouac bag? You can dress smaller wounds yourself, a bivouac bag protects against hypothermia.

Protection & provisions

Did you bring adequate rain gear? Are you wearing your gloves, glasses and is your helmet fastened?

Remember to bring sun protection and lip balm.

Did you bring enough food, drink and cash for the unexpected?

What to carry for trailside repairs

Tyre pump and shock pump for all valve types.

Spare tube and patch kit, repair plugs for tubeless tyres. Make sure they are the correct size/type for your bike. Check the diameter of the valve on the rim. Is your patch glue still liquid?

Tool for all screws on your bike. Cross tip screwdriver for the shifting system, Allen key, torx, chain tool, chain lock and pins (9/10/11-speed chain), fitting spare brake pads, cable ties, tape, derailleur hanger.

Spoke magnet for e-MTBs.

pre-ride bike inspection

Prior to each ride, check your bike to make sure it's in good working order.

Brakes

Check your front and rear brakes separately to make sure that they engage properly and smoothly: Walk your bike and squeeze your front and rear brake levers separately.

Do you get adequate brake power?

Is the bite point adjusted correctly? After 2/3 of travel the lever should engage the brakes.

Headset, handlebar, seat

Is the headset tight enough? Can you feel bearing play around handlebar/headset?

Is the handlebar tightly attached to the headset and the steering tube? To check, jam the front wheel between your legs and steer the handlebar.

Is the seat tightly attached? Check if the seat is tight and if the hydraulic seat post is in working order.

Tyres, rims and hubs

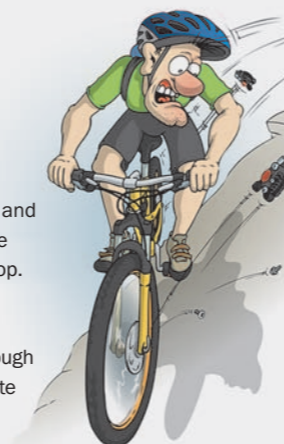
Are your tyres inflated properly? If a tyre is slowly losing air, better change the tube.

Are your rims ok? Are they bent? If yes, true the rim or take the bike to a repair shop soon. A slightly bent rim should not keep you from riding that day, but do fix it as soon as you can.

Are the hubs ok? Steady the frame with one hand and move the wheel at a right angle to the frame with the other. If you feel play, take your bike to the repair shop.

Shifting

Is the shifting working? Spin the cranks and shift through the gears. Clean drivetrain, rear derailleur and cassette from dirt and - if necessary - gently readjust cable tension (knurled-head screw on handlebar).



Trailside repairs

Main principle: Only repair if you know what you are doing. It will save you a lot of time and stress if you take your bike to a bike shop for service regularly.

Oh no! I have a flat!

Change the tube or patch the hole (patch kit). Careful: Inspect the outer tyre and rim for glass shards, thorns and other culprits ...

In case you've used up your spare tubes and patches:

- 1) Tie a knot into the damaged tube, as closely as possible to the damaged area (d).
- 2) Stuff the tube with socks, grass, leaves etc.

Cut / tear in the outer tyre

Patch using several layers of tape on the inside of the tyre or cover with cardboard or plastic (plastic bottle) etc.

Oh no! I broke a spoke!

Bend the broken spoke around one of the spokes adjacent to it and fasten it with tape or even a cable tie. At home, replace the spoke asap.

Hydraulic braking systems

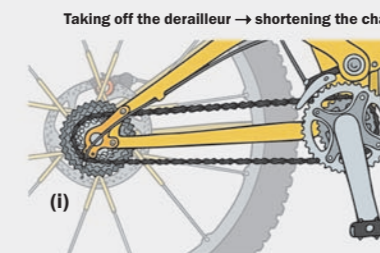
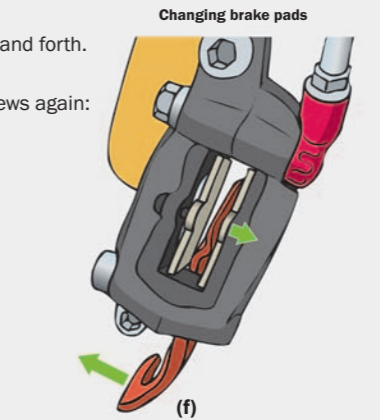
Squealing disc brake → Align caliper properly.

- 1) Unscrew the caliper (do not take it all the way off) and loosen it by moving it back and forth.
- 2) Spin the wheel and pull the brake lever.
- 3) While keeping the brake lever pulled tight (get yourself some help), fasten the screws again: The brake is readjusted.

Metal grinding noise → Change pads. Keep your gloves on, otherwise you'll "disc-brake-brand" yourself (e).

- 1) Remove the wheel and - for the time being - leave the pads in the caliper.
- 2) Take a flat tool (screw driver, key, etc.) and very gently push the old pads apart, pushing back the pistons to their open-most position at that (f).
- 3) Pushing the split-pin out (if applicable) and unscrew the bolt.
- 4) Now you can change the pads and replace the bolt/split-pin.
- 5) Reinstall the wheel. In case the breaks do not bite, pump the brake lever a few times.
- 6) Bed in your new brake pads by getting up some speed and grabbing on your brakes powerfully. Ready to go!

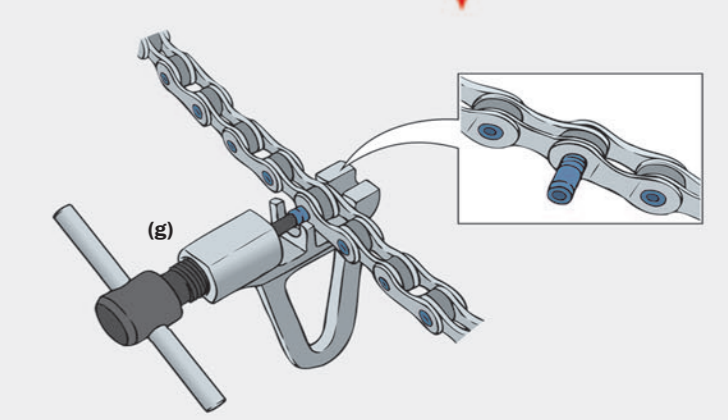
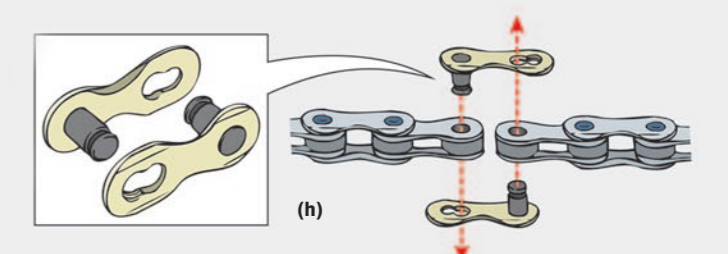
Danger from hot brake discs!



Oh no! I broke my chain!

Split your chain using a chain tool (g) and remove the damaged link. Make sure the chain is routed correctly through the rear derailleur pulleys and the front derailleur and snap the chain lock together (h). If you only brought a spare pin, the chain links must be joined with this pin.

If you neither brought a lock nor pins, the old pin can be reused. Make sure you do not push the pin beyond the edge of the bushing. Remove the damaged link, use the chain tool from the other side and push the pin back into the shortened chain.



Oh no! I broke my rear derailleur! (i)

Take off the derailleur, split the chain (g) and remove it. Route your chain on the medium cogs (front & rear), shorten it to fit the drivetrain (finger-tight) and put it back together again (h). Be careful with full suspension bikes: The chain may be too short when you compress your front suspension (so pump in more air or activate shock lockout).