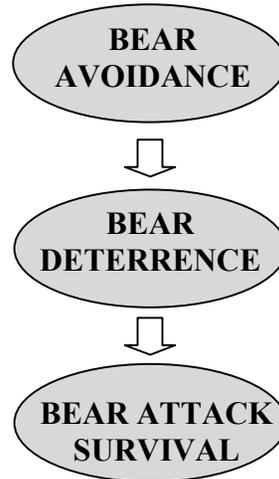




SAFE CONDUCT IN BEAR COUNTRY



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There are three categories of actions for dealing with bears: avoidance, deterrence, and attack survival. This approach is similar to that of automobile safety: if you drive defensively and responsibly, you need not worry about whether or not the seat belt or air bag will save your life because you are likely going to avoid accidents. However, just as the seat belt and air bag are important safety systems in automobiles you also need to be prepared for the very rare situation where you may find yourself having to deal with an aggressive bear. Fortunately, if emphasis is placed on preventing sudden/close encounters with bears in the first place, you will not have to worry about how to respond to a menacingly curious bear or worse, survive an attack. It is all about attitude and preparedness.

Bear Avoidance: Your highest priority

Human-bear conflict studies have consistently shown that the vast majority of bears, black, brown and polar, want nothing to do with people. But we do have bear attacks. Why? Because there are two types of bears on the landscape: those you might startle/surprise and those that are predatory. In the following I'll address both types but for now let's focus on the non-predatory bears which is the vast majority of bears you may encounter.

When people surprise bears at close range they may respond in an aggressive-defensive manner; that is, they may attack rather than run. This mostly applies to brown/grizzly bears, though black and polar have both been documented to attack when surprised at close range. So we do not want to surprise bears. Similarly, if you introduce strong odors that pique their attention and attract them, approach them such that they feel threatened, or simply make them an offer they can't refuse (such as a sloppy camp with unsecured food), you will find yourself in an up-close

situation with bears, an animal that can do tremendous injury to humans. While it is not bears' inclination to harm you, if given no apparent chance to move out of your way, they will defend themselves. Consider this from the bear's perspective: in their world, most creatures that approach them are up to no good and such behavior is considered a threat. Therefore, you should always maintain a safe distance between yourself and bears, as well as do those things that do not attract them nor surprise them. This proactive attitude is the most important aspect of bear safety because it helps you avoid bear encounters altogether. We all can do many things that will greatly reduce the chances of bear encounters and hence avoid problems. Conversely, you can also unwittingly do things that will increase the chances of an encounter, so it is important that those actions be identified and the chances of a bear encounter minimized. Successful avoidance of bear encounters can be enhanced through 1) self-education, 2) effective camp layout and design, and 3) appropriate conduct in bear country.

Self-Education

If you are headed into bear country, doesn't it seem reasonable to learn at least a little about them so that you can avoid problems? After all, standing face-to-face with a bear at close range is not at all like seeing a fox on a trail, or having even an angry dog growling at you. Imagine the most powerful and frightening dog squaring off with you... then multiply that by many times, upscaling to the size of a bear. You do not want to be in that situation and, if after all you have done to avoid it you want to be well-prepared. Heading into bear country ill-prepared is like driving on the freeway with no seatbelt: it is taking an unnecessary risk... and for what? Take the time prior to entering bear country to learn a little about them, their habitat, their behavior so you can go and return safely. Also consider the following:

- < Visit YouTube™ and watch bear safety presentations...and there are countless of them! For example, the bear safety videos shown to visitors of National Parks with bears can be found here. So can many presentations regarding how to be safe in bear country. Watch them, learn, and practice the guidance given. You'll feel safer on the trail and in camp and will have a much more enjoyable trip.
- < Purchase one of the excellent "how to" guidebooks such as *Backcountry Bear Basics* by Dave Smith, *Bear Encounter Survival Guide* by James Gary Shelton, and others. Ultimately, safety is **your** responsibility and you can do much on your own to insure that.
- < Look online to see if the agency that manages the area into which you plan to travel has bear safety information posted. Many agencies (like the US Forest Service, National Park Service, etc) not only post bear safety information, but also the history of bear-human interactions in their respective areas and that can be very informative. Most parks and refuges maintain a database of incidents and this information may provide guidance you can use.
- < Talk to others who have been to the area and see if they have any background information that may prove useful.

Next, if you are going to camp in bear country, please consider aspects of bear avoidance as they

relate to the **Camp Setting**. How to set up and maintain a safe camp is an important first step in avoiding unwanted bear encounters.

Campsite Safety

< **Campsite location** - There are many things to consider when selecting a location for your camp that minimizes the chances of an unwanted bear encounter. Not only do you want to avoid seasonal high-use areas but also avoid doing those things that may elicit bears' attentions and subsequent curiosity. Consider these site selection criteria:

Sensory Issues

Because bears respond to the sights, scents and sounds associated with people, you will want to minimize those cues, or at least be aware of the fact that you are telegraphing them into the wilderness.

1. To the best of your ability, avoid areas with poor visibility which may diminish the bear's ability to see you (and you them) at a safe distance (not only vegetation, but also topography can be problematic).
2. Try to avoid areas that are naturally noisy such as those near heavy wave action, rushing streams or roaring waterfalls.
3. Extremely windy areas are also problematic in that the sound of the wind not only blocks hearing (yours and bears) but also whisks your scent away so that the bear cannot detect you with their nose and avoid you.

Bear Habitat Quality

("bears are where they find you")

Not surprisingly, bears key in on berry patches, areas with young emergent vegetation, fruits on trees and where fish congregate in streams. Stay clear of such areas, allowing bears to come and go without encountering you. Therefore:

4. Avoid bear seasonal foraging areas (streams/fish - berries - horsetail – sedges - etc)

Bear Movement Corridors & Restrictions

5. Avoid areas that concentrate bear movements (e.g., ridge lines, narrow valley constrictions, shortcuts from river to lake, stream sides, etc.). In areas that support healthy bear populations, bears walk along creeks, shorelines, and so you should not camp immediately on them, but back as far as is reasonable, perhaps 20 m or more, thus giving bears a chance to pass without interacting directly with you.
6. Use terrain and natural features to your advantage when possible: cliffs limit approach paths; knoll tops provide good view sheds but may well advertise your presence to bears which would otherwise pay no heed...consider that too; very thick brush can passively

route bears around camp; water is not necessarily a deterrent to bear approaches.

< *Camp Layout - the physical layout of campsites should be with bear safety in mind:*

1. Place sleeping tents in the most secure areas - space them out linearly (not in a circular pattern) which not only provides the bear more options for leaving but is also safest with regard to hazing away curious bears.
2. Consider putting the most experienced people on each end of a line of tents so that someone with experience can deal with bears that may approach either end.
3. Keep the cooking area, food and any scented objects at least 100 m downwind from your sleeping area unless you are using an electric fence; then do all such activities inside the fence, including storing your food.
4. When laying camp out, use the vegetation and topography to your advantage: extremely thick brush limits the possible approach routes for bears and focuses your attentions in the most likely directions just as a camp backed up to a cliff has 180 degrees less concern than one in an open meadow.
5. Brush in bear trails that come to camp so as to deflect their movements away from, rather than into, your camp

< *Food Storage & Preparation*

1. Use bear-resistant food containers (BRFC) for food storage when possible.
2. If you do not have a BRFC, then attempt to hang the food at least 10 feet above the ground and 10 feet from the nearest tree trunk. If no trees are available, hang the food from a cliff. If no cliffs are available, stash the food at least 100 m from your camping area but be aware that it may be gone by morning. You might consider not hanging food in brightly colored stuff sacks... these bright colors advertise their presence and a pinata for bears is the last thing you would want near your camp.
3. Handle wastewater like the attractant it is: all washing/cooking liquids should never be drained in or around camp (water from boiled pasta, etc) - bears will key in on it. Instead pour them into lakes, streams or far from camp (100 m) so that they are not drawing bears into your area.
4. Manage stove fuel carefully! Fuel spills are strong bear attractants, especially diesel and kerosene. These fuels must also be secured from bears as they will bite through containers to get at these oily, attractive scents.
5. Any excess food (after dinners) should be zip-locked and placed in BRFC's when not in use.

< *Management of Other Bear Attractants*

1. Make certain that personal tents are devoid of scented products: toothpastes, lip balms, snacks, etc. Avoid apply heavily scented body lotions and other such odiferous substances. Most people get that, but they do not understand why washing their hair with Strawberry Essence is also not a good idea.
2. Loud noises may work for/against you: bears find novelty in any form of interest so loud noises may not only alert them to your presence but may also attract them - this is also counter to a wilderness, low impact, ethic.
3. Be aware that human excrement/urine is a known attractant for bears and should not be deposited near your campsite. Some persons keep a “pee bottle” (mark it well: NOT FOR DRINKING!) in their tent and discard it later so that they don’t have to wander out into the dark at 2 AM to relieve themselves. Remember: when you are relieving yourself (particularly defecation) you are sending an attractive scent signal downwind - be wary and beware of wind direction and approach! More than a few persons have been approached by a curious bear when in a somewhat compromising position.

< *Other Bear Safety Considerations For Camp*

1. As a group, determine where your camp perimeter is and agree that if and when a bear comes within that perimeter that you will begin hazing. Briefly discuss a hazing strategy (begin with low level hazing and increase it until the desired effect is achieved).
2. As a group, discuss what you will do should a bear come to camp in the night: who will respond with deterrents and who will back them up; what if a bear is near a tent? How do you respond as a camp?
3. Discuss what to do should someone be attacked - these things should be discussed in camp and everyone clear on the action plan.
4. As a group, discuss the use of bear hazing options and the need to carry them at all times; what is required/what is not; leaving camp unattended - who is responsible for what?
5. What about headphones for music, audiobooks, etc.? You should be listening carefully to the wilderness around you.
6. Make certain that bear deterrents are available while cooking. Do not get caught with nothing available. Deterrents (e.g., bear spray) stored in you tent or in backpacks are essentially useless.
7. Before turning in for the night, make sure you have a flashlight handy as well as bear spray and/or a flare gun or other scare device. Be prepared for the worst case scenario and you will sleep better.
8. Sleeping under the stars is considered risky behavior in bear country because you have no

warning of a bear's presence except when it touches you in your bag.

Hiking Safely in Bear Country

< Be A Defensive Hiker – Avoid bear problems!

1. How close do you approach a bear? (Yellowstone NP has a 100 yard rule; Katmai NP has the 50-100 yd rule; Denali NP has a 400 yard rule; distances are location-specific and you should be aware of guidance for the area into which you are venturing). It goes without saying that you should never approach a bear. This can be perceived as an aggressive action and bears are well equipped to deal with would-be aggressors.
2. Minimize the chances for a surprise encounter (be terrain smart) - avoid brushy areas, salmon streams in late summer/fall; bears rest about anywhere and you should be aware of them whenever visibility is poor; bears like “lookout” locations so be prepared to encounter day beds on promontories, hillsides, etc. Pick your paths carefully - note the wind direction, noise level, adjust your awareness level accordingly.
3. Make noise *appropriately* - alert bears to your approach and presence.
4. Be aware of bear activity as a function of time of day – they are most active morning and evening but also midday, but to a lesser extent. In areas of well-established campgrounds, if you perceive a bear prowling at night, you can be certain this is a food-conditioned bear and you need to be very wary. These are bears that have associated humans with food and are particularly dangerous. Notify campground hosts. If camping in the backcountry, ready your deterrents and be ready to haze it off should it boldly approach.
5. Be aware of bear activity as a function of season. Bear attacks are least common in winter but not unheard of. In Alaska, people have been attacked and killed in every month of the year.

< Bear Safety Deterrents

- 1) You should carry at least two bear deterrents at all times - these must be accessible if they are to be of any use to you. Even in camp, keep bear spray on your belt. Bears show up at the most inopportune times...
- 2) In many areas leaving a pack on a river bank is unwise and a punishable (fines) offense in National Parks - bears are very curious and have destroyed many packs in this manner - do not leave gear unattended OR out of your safe keeping while conducting field research.
- 3) Consider carrying the following on yourself when hiking in bear country:
 - a. bear spray in holster on your belt or on a pack strap - very convenient location

- b. USCG approved hand held safety flare (XLT SkyBlazer type)
- c. small first aid kit
- d. flashlight if anticipated that you may be hiking at night
- e. cell phone
- f. binoculars may help you spot bears from a safe distance

< *Be Aware of Bears & Bear Behaviors*

1. When you encounter a bear, size up its behavior immediately: is it aware of your presence? Is it showing interest in you? Is it acting abnormally? Does it track your movements and reorient its movement so that it will intercept you? Is it treating you as a potential prey item? (e.g., positioning so that it is at an advantage, quartering around you as if calculating an attack strategy). Regardless, if the bear is in your line of travel, divert widely around to give it space. Directly approaching a bear should be avoided at all costs.

< *Group Size and Bear Safety*

1. Research in many parts of the world has shown that the larger the group of persons, the safer it is. Clearly, soloists are at the greatest risk of a bear encounter, so hike together when possible. Hiking spaced widely increases the probability of an attack should a bear be surprised/encountered. Walk as a group, talk and pay attention, particularly in low visibility areas. I consider you a ‘group of hikers’ if you can carry on a conversation. Beyond that, you are too far apart.
2. If approached/charged by a bear do not split up and never run. Rather, group together and do not let a pushy bear split you up. Remember that while bears may approach closely to “test the waters” bears *almost never* attack a group of people that are standing their ground. Once grouped up, ready your deterrents and back away slowly while keeping your eyes on the bear. You may have unknowingly approached a bear on a carcass or a mother with cubs. The only solution to resolving such encounters is to get out of the bear’s personal space. So do so, but do it steadily (no running) and with deterrents raised and ready to use should the bear charge.

Bear Deterrence

< *The Camp Setting - Topics That Should Be Discussed Among Campers*

1. Determine how close you will allow bears to approach your camp. As a rule of thumb, consider 10 m. Any closer than that and you will defend your gear with the use of deterrents.
2. Discuss a hazing strategy that dials up the heat if the bear continues to approach. For example, imagine a bear approaching your camp. While still out at 30 m, everyone should group together in front of the camp and stand and watch the bear. Often this show

of numbers is enough to convince the bear to leave. If the bear continues, then a person might shoot a screamer in the bear's direction (and if armed backup is available, make sure it is trained on the bear should a charge ensue). If the bear continues then rubber bullets or cracker shells can be used, again with armed backup. In cases where armed backup is not on hand, back up the screamer with bear spray and be ready to use it. Never abandon camp because of an approaching bear!

3. Decide which deterrent options should be used first and at what distances (e.g., a screamer can be used at 30 m if need be; bear spray only at 10 m).
4. When carrying firearms, be sure to back up any non-lethal deterrent actions with firearms. Realize that hazing is an aggressive act and may precipitate a charge.
5. Establish a hazing strategy for day and night - run through some a few mock scenarios so that if a bear wanders into camp at 2 a.m. you are ready to deal with it.
6. Make sure that the nighttime tent arrangement provides for ready access to bear deterrents and their use (i.e., that in each tent at least 2 deterrents are on hand plus flashlights so that you can see the bear)

Bear Attack Survival

Studies have shown that you should **never play dead with a black bear** and only with a grizzly/brown bear when it has knocked you to the ground and you can no longer get up due to the bear mauling you. To lay down for a black bear is 'akin to offering yourself up as a sacrifice' said Dr. Stephen Herrero in his classic book "Bear Attacks: Their Causes and Avoidance." Why? Because analysis of black bear conflict data shows that they a) do not attack people to protect their young, b) do not protect animal carcasses, c) do not try to aggressively interact with humans when surprised, and that they d) run for cover as their primary defense. Therefore, if a black bear approaches and does not haze off, you have a problem and must deal with it aggressively. If a black bear were to attack you should fight with all you have.

With grizzly/brown bears your response is *different* than with black bears or even polar bears in that a) they aggressively charge and often make contact to 'neutralize a perceived threat', b) they defend cubs, c) they defend carcasses, and d) they are only very rarely predatory. This means that if your deterrent has failed and the bear charges, you should keep spraying (or shooting) until the bear either makes contact, draws up short or veers off and leaves. I would not let them have access to my face, their focal point for attack. Turn away at the last moment, allowing any contact to be on your backside, preferably into a pack. Do not lay down! I would never lay down for a bear but if knocked down I would stay down if I could not reach either my spray or gun. Data show that these bears will cease mauling once they sense that the perceived threat (the person) has been neutralized. If however, after laying still a bear begins exploring, nipping, biting... it is time to fight for your life with anything you have. Data have shown that in 90% of cases when a second person returned to help someone being mauled, the bear broke off the attack and left. However, I would never go to assist without bear spray or a gun... unless you are willing to risk being mauled yourself. Of course, sometimes drastic times require drastic

measures... it is up to you.

If you've been knocked down by a brown/grizzly bear, then wait until the bear completely leaves the area. However, until that time **do not move**. Moving before the bear has left has often led to repeated renewals of attacks, resulting in more severe injury. Once the bear is gone, leave the area. If possible, go in the opposite direction the bear went. Carry deterrents at the ready. Make noise. Some few persons have re-engaged with the bear that attacked them and suffered considerably.

Bear attacks are extremely rare and most often were the result of persons not having conducted themselves according to these guidelines. A bear's jaws and teeth have been known to shear off 9 mm bolts on cabin doors in Denali National Park. You do not want to get any part of your body between them....

Following this advice will minimize your chances of encountering bears. If you do not surprise or encounter them they cannot attack you. Overall, staying safe in bear country is simple stuff. Be confident that with a little preparation the odds of you being attacked are very low.

The Basic Rules of Bear Safety

WHEN HIKING IN BEAR COUNTRY

DO NOT ENTER BEAR COUNTRY WITHOUT A DETERRENT.

IF YOU ENCOUNTER A BEAR

(simultaneously)

***ALERT OTHERS
GROUP TOGETHER
READY DETERRENTS
LEAVE AREA IMMEDIATELY***

IF BEAR PURSUES THEN USE YOUR DETERRENT

WHEN CAMPING IN BEAR COUNTRY

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**USE AN ALARM/FENCE/DETECTION SYSTEM AS NEEDED
PITCH TENTS IN A “BEAR SAFE” MANNER
AVOID STRONGLY SCENTED OBJECTS IN TENTS
KEEP DETERRENTS AT THE READY**

IF ATTACKED

**NEVER LIE DOWN FOR A BEAR – BLACK OR BROWN
IF KNOCKED DOWN – GET UP WHEN POSSIBLE
OTHERWISE ASSUME PROTECTED POSITION
RESCUERS ARE 90% EFFECTIVE IN HALTING ATTACKS**