Bear Spray

Safety for People Safety for Bears

-www.BeBearAware.org-

Read the Label

and know how to identify bear spray

The Center for Wildlife Information produced this sample bear spray label to help consumers determine what to look for when purchasing bear spray. Bear spray labels vary from manufacturer to manufacturer. The information on the front of bear spray labels must be approved by the Environmental Protection Agency. **Please always call it bear spray.**

Look for the following when purchasing bear spray:

- Clearly states that it is **for use on bears only.**
- Clearly indicates the product is **for deterring bears from attacking humans, not for use on humans.**
- Provides a reminder not to seek out encounters with bears just because you have bear spray.
- Clearly states that active ingredients are: **1% to 2% Capsaicin and related Capsaicinoids.**
- States that the active ingredients **Capsaicin and related Capsaicinoids** are derived from Oleoresin of Capsicum.
- States that the minimum net contents is: **7.9 ounces or 225 grams.**
- Must show the EPA registration number and EPA establishment number.
- **Suggested bear spray duration of 6 seconds** to deal with a variety of charging scenarios and to adjust for wind.
- **Suggested bear spray distance of 25 feet** to allow a charging bear to meet the expanding cloud far enough away as possible. This gives the bear time to feel the effects and divert its charge.

PLAN AHEAD!

Practice removing the canister from your holster and removing the safety clip until it has become a quick, automatic reflex.

- If you encounter fresh bear signs such as tracks, scat, diggings, claw marks, or rolled over rocks and logs, unholster your bear spray and be on alert.
- When field-dressing game or cleaning fish have your bear spray readily available with the safety clip off.
- In camp have bear spray and a flashlight in your cooking area and tent when sleeping.
- Rehearse beforehand what you or your group would do in an encounter with an agitated, charging, or attacking bear.

This is a generic bear spray front label. The most important areas are highlighted in red.

Please always call it

Bear Spray

How to use your bear spray

HOW TO CARRY BEAR SPRAY

- Bear spray should be carried in a readily accessible hip or chest holster, not in a backpack or pocket.
- Practice removing the canister from the holster and removing the safety clip [To remove safety clip put your thumb in front of the clip, pull back, and let the clip fall].

HOW TO HOLD AND DIRECT THE BEAR SPRAY

- Hold the can firmly in one or both hands to prevent it from tilting up and spraying over the bear.
- Remember, you do not have to aim bear spray; you direct the expanding cloud to create a wide barrier the bear must pass through.
- If a bear is charging from a distance (30-60 feet away) direct the spray downwards with a slight side-to-side motion, so that the bear spray billows up and creates a wide cloud that acts as a barrier, between you and the bear. If the bear enters the barrier, the active ingredients Capsaicin and related Capsaicinoids will irritate the bear's eyes, nose, mouth, and lungs distracting it from its charge.
- If the bear charges from a close distance (30 feet or closer) spray continuously at the front of the bear until it breaks off its charge. Because the bear is so close and moving fast it may not immediately respond to the effects of the bear spray. Reports have shown that using bear spray has lessened the length and severity of an attack.
- After the bear has retreated, leave the area as quickly as possible (without running). Do not chase or pursue the bear. Monitor the bear or the direction it left in as you leave the area.
- Be prepared to re-spray to adjust for wind, cold, or more than one bear, or a bear that charges, retreats and charges again, or zigzags or circles.

YOUR BODY LANGUAGE AND VOICE

Remember, when using bear spray you have chosen to confront an agitated or aggressive bear. You have made the decision to persuade it to stop its charge or attack. Bears respond to body language and sounds. When dispersing your bear spray, take a firm stance, thrust your bear spray out in front of you, and shout, "No! Stop! Go Away!" By doing this you are letting the bear know that you are taking a stand and will fight. Bears don't understand words, but they do understand body language and tone of voice. In some cases the whooshing sound from the can, followed by the expanding orange cloud has distracted and deterred charging bears. The distance or the time of spray duration you may need to use will vary depending on the type of encounter, how aggressive the bear or bears are, and weather conditions.

BEAR CHARGING FROM A DISTANCE

In an ideal situation no wind is present and you are able to use your bear spray when the charging bear is 30-60 feet away. This will allow the bear to meet the expanding cloud at about 25ft and give it enough time to feel the effects of the bear spray and divert its charge. Bears have been known to divert their charge at the sound of the whooshing from the spray and the expanding red cloud (visible for about 15 feet). Several factors determine the effectiveness and quickness of bear spray, such as wind, obstacles, and temperature.

- Disperse your bear spray when the charging bear is 30-60 feet away. Direct the spray downwards with a slight side to side movement. The bear spray cloud will create an expanding barrier in front of the bear.
- If the bear continues to charge, it will have to enter the expanding cloud at about 25 feet from you. Once it feels the effects of the active ingredients it should divert its charge to deal with the irritation to its eyes, nose, mouth, throat, and lungs.
- Monitor how the wind and cold affects the spray and compensate if necessary. Be prepared to re-spray.
- If the bear continues to charge, circles around the cloud, zigzags, or retreats and recharges you may need to re-spray.

Photo by Chuck Bartlebaugh (educational reenactment)

UNEXPECTED CLOSE CHARGES (and entering your tent)

Unfortunately, a bear charging from close range may reach you before it is distracted by the sound of the spray and expanding cloud, or has had time to respond to the irritants of the bear spray. Because of the bear’s momentum it may not be able to divert its charge until after it has made contact. Fortunately, reports have shown that bear spray has decreased the length and severity of an attack.

- Direct the bear spray slightly downwards, towards the front of the bear. Continue spraying until the bear retreats or makes contact.
- If a bear makes or is about to make contact, drop to the ground, interlock your hands behind your neck and play dead. Once the bear feels the effects of the bear spray, it will most likely break off the attack and leave the area.
- If a bear is entering your tent, spray it directly at the face. Continue to spray until it retreats.

Photo by Chuck Bartlebaugh (educational reenactment)

IF SOMEONE IS BEING ATTACKED

In some cases when someone is being attacked by a bear you will need to spray both the bear and the person (asthmatics may need special care afterwards). It is imperative that you act quickly because the person's life is in danger. Stay on your guard until you are sure the bear has left the area.

- Spray directly at the head of the bear. When the bear separates from the person, continue to spray the bear to encourage it to leave the area.
- Be prepared - the bear may turn on you and charge. Continue spraying directly at the front of the bear until it breaks off its charge and retreats. When the bear leaves, assist the person and leave the area immediately.
- Carry a sufficient amount of bear spray for the hike out or to have while waiting for help to arrive.

Photo by Chuck Bartlebaugh (educational reenactment)

MENACING OR THREATENING BEAR

You may encounter a bear that has been surprised and is agitated but not charging. It may run side-to-side, run at you, retreat, run towards you again etc. As you back away it may continue to approach and threaten you. Disperse a short burst towards the bear while monitoring its reaction. The bear should stop and retreat.

- Bears that are agitated may appear to be non-threatening or passive at first.
- Bears that are agitated may snap or pop their jaws and make a "woofing" sound.
- Do not run. This may incite a predatory chase response.
- If the bear charges, spray directly at the front of the bear until it diverts its charge.
- Do not approach or spray non-threatening bears. Bear spray was not designed to be used on non-aggresive bears.

Photo by Chuck Bartlebaugh

Myths and Misrepresentations

The University of Montana Border Grizzly Project developed, researched, and tested bear spray in the mid 80's. Dr. Charles Jonkel, the internationally known bear biologist, oversaw the project. Carrie Hunt, graduate student at the time who conducted much of the research, is now recognized for her work as a world renowned biologist with Karelian bear dogs. Her research included testing bear spray on captive grizzly bears and black bears, bears in the wild, and bears at dump sites. Her final report was published with the US Fish and Wildlife Service. Bill Pounds, the original developer of bear spray and the founder of Counter Assault (the first EPA registered bear spray) assisted the researchers with the formulation and the dispersal system for bear spray.

The Border Grizzly Project was covered by the national news media including a feature article in Life Magazine. Unfortunately this attention resulted in many marketers promoting generic pepper spray, which is designed for use only on people or dogs, not for use on bears. Bear spray is designed to be used only on agitated and aggressive charging or attacking bears. These pepper spray manufacturers used old pepper spray text and incorrect terminology and instructions that were not approved by the EPA for use on bear spray labels. This led to numerous misunderstandings and myths about bear spray and resulted in consumers and retailers being confused about what bear spray is and how it is different from personal defense spray.

Myth: *You must wait until the bear is close.*

Fact: The objective of bear spray is for the expanding cloud to reach the bear at a distance so that it has time to respond to the effects and divert its charge before it reaches you. That is why the suggested spray distance is at least 25 feet and the suggested spray duration is six seconds, so it can be used in a variety of charging or attacking situations.

Myth: *You must aim at the bear's eyes, nose and mouth.*

Fact: Bear spray disperses a fine atomized expanding cloud that the bear must pass through. When the bear enters the expanding cloud, the active ingredients in bear spray, Capsaicin and related Capsaicinoids, will irritate the bear's eyes, nose, mouth, throat, and lungs. If you wait to aim at the eyes or face it may be too close to divert its charge. If you spray the bear when it is within 60 feet of you and charging, it will meet the cloud at about 25 feet, feel the effects of the spray, and divert its charge. If wind is present the direction and distance of the spray will be affected. Prepare to adjust and spray again. If the bear is close, direct the spray at the front of the bear and continue spraying until the bear diverts its charge.

Myth: *Bear spray works instantaneously, "like hitting a brick wall."*

Fact: Every bear encounter is different. How fast the bear responds to the bear spray may depend on how fast it's traveling or how agitated it is. It may also depend upon whether the bear is just startled or whether it is defending a cub or food source. If a bear charges from close range, even if it is sprayed, its momentum may carry it into the person. A bear may slap or nip the person but the bear will likely run off as soon as it feels the effects of the bear spray. Wind, temperature, and how fast you're able to disperse the spray will also affect how fast the bear responds.

Myth: *Hotter is better.*

Fact: The Environmental Protection Agency does not allow this unreliable promotional claim on bear spray labels, store displays, or promotional materials. No known testing has been done on bears that demonstrates that hotter is better. It is believed that the irritation from the active ingredients Capsaicin and related Capsaicinoids is what causes bears to be distracted and redirect their charge. The EPA has set the range of active ingredients Capsaicin and related Capsaicinoids from 1% to 2%. Within this range bear spray hotness can vary slightly from one year to another.

Myth: *The more Oleoresin of Capsicum the better, or the thicker the better.*

Fact: Oleoresin of Capsicum (OC) is simply the oil that contains the Capsaicin and related Capsaicinoids. More Oleoresin of Capsicum (oil) requires more solvent to produce the fine atomized cloud. This reduces space in the can for propellant and may reduce the spray duration and distance. More OC oil may cause a thicker spray separating the active ingredients from the propellent and causing it to fall to the ground. It can also clog the spray nozzle causing erratic spraying.

Myth: *Bear spray cans that empty faster are better.*

Fact: Only the ingredients that reach the bear's eyes, nose, mouth, throat, and lungs will have any effect. The active ingredients Capsaicin and related Capsaicinoids, dispersed more quickly, will not become more potent (2% Capsaicin and related Capsaicinoids will not become 4%). Bear spray that is dispersed too fast will only waste vital spray. There have been incidents where people have run out of bear spray when they were charged by multiple bears, have had to re-spray due to wind, or other unforeseen factors.

Myth: *Bear spray is made from cayenne pepper extract.*

Fact: Currently yes; however, Oleoresin of Capsicum and the active ingredients Capsaicin and related Capsaicinoids can be derived from a variety of different pepper plants. Giving the impression that bear spray is made only from cayenne pepper extract is not accurate.

Myth: *Bear spray and pepper spray are the same thing and contain the same ingredients.*

Fact: Bear spray is under the jurisdiction of the Environmental Protection Agency and manufacturers must register their formula, ingredients, labels, and some promotional materials with the EPA. Bear spray is regulated by the EPA and state environmental and agricultural agencies. Manufactures' files are subject to review to ensure that they are using the same ingredients that they listed on their registration application and label. (Bear spray manufacturers may not substitute ingredients or change formulation without EPA acknowledgment and approval).

Pepper spray is not monitored by state or federal agencies like bear spray is. Manufacturers may substitute ingredients, package in palm size cans, use different types of spray nozzles, and use terminology and promotional phrases on their labels and promotional materials not allowed on bear spray.

Myth: *Bear spray was developed for, and produced to be, used only on grizzly bears.*

Fact: Bear spray was tested extensively on both black bears and grizzly bears at a clinical captive setting at Fort Missoula, MT, on bears at dump sites, and on free roaming bears. It has been shown to be equally effective on aggressive charging or attacking black bears and grizzly bears.

Myth: *If you get bear spray on you while defending yourself you will be immobilized.*

Fact: In most cases when people are affected by their own bear spray, they are able to continue functioning.

Myth: *Bear spray is just as effective on passive bears.*

Fact: Passive bears that have been sprayed tend to walk off and return to food rewards in a short period of time. Bear spray was specifically designed for use on charging or attacking bears. When the bear feels the effects of the bear spray, its ability to breathe, see, or smell is compromised.

Myth: *If you have bear spray you can approach bears.*

Fact: You should never approach or interact with bears. There are regulations governing against the harassment of wildlife, especially bears, and you are still required to follow all wildlife regulations.

Bear Avoidance Educational Materials

Our bear spray educational material is provided at no charge so youth group leaders, hunter education instructors, hunting groups and tour operators can inform their staff, clients or partners about bear spray and how to identify, carry and use bear spray. The better informed you are about bear spray the better protected you will be when using it.

Bear Spray Brochure

4x9 Bear Spray ED Card

11x17 Bear Spray Poster

4x6 Bear ID Card

Bear Encounters DVD

12-panel 4x9
Educational Brochures

3x11 Bumper Stickers

Photographs by Chuck Bartlebaugh - Layout by Jackson Goodell - Text Development by Carolyn Hartsell

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