



## Bear Spray Basics

Bear spray has proven effective on black bears, grizzly bears and cougars. Carry it with you as a safety precaution for both field work and while recreating in bear and cougar habitat.

### ***First Things First***

When you buy a can of bear spray, remove the seal that holds the safety on. This seal holds the safety in place and prevents accidental discharge while shipping or in the store. Cut it off.

Also buy a holster that fits the canister. Make sure you can pull it out easily. The holster should have a flap that covers the canister's top to prevent dirt and vegetation from getting on the spray head.



### ***Safety Off and Safety On***

Go OUTSIDE and practice taking the safety off and putting it back on. Many people accidentally hit the trigger (also called an "actuator") when they first try this so going outdoors is essential!



To take the **safety OFF** (the white object in the photo), hold the canister with one hand and pull straight back on the safety along the angle of the trigger.

To put the **safety ON**, hold the canister with one hand, set the safety on the end of the trigger at the same angle as the trigger – and push. Check and make sure the safety is completely on – that there is no gap between the end of the trigger and the safety.



### ***How to Transport***

Although there are a few commercially built containers to transport bear spray, you can make your own out of 3" ABS sewer pipe with a cap at one end and a cleanout at the other. Assemble with ABS solvent using normal plumbing procedures. These black ABS plastic containers have been tested in the States and they do contain the high pressure pepper spray when a canister ruptures. Do NOT use containers built of white PVC. This material is softer, thinner and has not been tested. They may not contain

the bear spray if the canister bursts. Use the ABS container to transport in a truck, car or boat but do not leave it in a vehicle which could overheat.

Bear spray cannot be transported on commercial airlines. It is not permitted in the passenger compartment of helicopters or light aircraft. If the canister ruptures due to pressure changes, the pilot could become incapacitated. Bear spray can be transported outside the helicopter in a box on the strut.

### ***How to Carry***

Carry it securely on your person in a place where you can deploy the spray within 2 seconds. For most people, the canister should be in a holster on a belt. I recommend you carry it in the cross-draw position (weak hand side) with the ring facing forward. Your fixed blade knife should go on your strong hand side.



Do NOT put bear spray in a large pocket of a cruiser vest or coat. Do NOT have it mixed with other things you carry such as flagging tape, paint cans, tools or anything else. These situations have caused accidents where the safety came off or the canister ruptured, and people were seriously injured by the spray. One person was hospitalized for 3 days. If you do use a cruiser vest, either have a fitted pocket just for the bear spray – or use a holster. Whatever arrangement you use, you must be able to have your spray out and the safety off – aimed at the predator – in 2 seconds or less.

Some manufacturers recommend testing the bear spray before each trip to the field. **I do NOT recommend this!** Each time you test it, you have less spray in the canister. That means less spray with which to defend yourself. Buy a reputable and proven brand of bear spray and do not test it.

If you will be more than 20 minutes away from a vehicle or building, you must carry a second canister. You will need it if you're in a prolonged encounter.

### ***To Spray . . .***

The animal must be close for the bear spray to be effective – 3 to 6 metres (10-20 feet). Aim the canister directly at the face of the predator and press the trigger down. The spray comes out with pressure more like a fire extinguisher than spray paint. Spray in a short burst of 1 second or less.

Do not spray steadily in a sweeping motion! Do not spray in an "X" pattern! Do not spray the whole canister all at once! Instead, spray in short bursts. Each time the bear, cougar or wolf is aggressive, spray another burst. In the 230 gram canister, you may have as many as 10 bursts, or 7 seconds of steady spraying, when the outside temperature is about 20°C. In colder

temperatures you'll have less. Spray in short bursts each time the predator is aggressive. Once its aggression stops, *you* get out of there. The rule is "Spray and get away."

### ***If There Is a Wind . . .***

Faced with a bear and the wind coming toward them, people have successfully manoeuvred themselves so that the bear is downwind or at least crosswind instead of in a headwind. If you must spray into a headwind, at the last second hold your breath and close your eyes, then move out of the cloud. Open your eyes, snort the air and spray out of your nose, breathe in a small amount to test the air, and get ready to spray again.

### ***If You Had to Spray . . .***

Expect some spray to be on you. Even with the wind at your back, some spray will get on the canister and possibly your hand. Wash your hands as soon as possible with soap and water. Also wash and rinse the canister (with the safety on!) and the nozzle. If the spray got on you and your clothing, you will have to take a shower and wash your clothes. Also wash your pack or other equipment that was contaminated.

If you sprayed, set that canister aside. **Do not take a partial canister into the field!** Always carry a full canister.

### ***Bear Spray Maintenance***

Check the expiry date on your canister. They are usually good for 3 years. Old canisters and partial canisters can be used for practice.

Do a visual inspection of your canister each time you take it in the field. Some canisters are made of very thin aluminum – others are much stronger. Look for dents, deep scratches and any other damage. Do not carry a damaged canister into the field. It could fail to function or malfunction spraying you.



Here is another situation. One forester sprayed a large predatory black bear that charged him at close range. The bear was deterred but didn't leave. Meanwhile, the trigger stuck in the open position and the canister quickly emptied. He and his dog made it safely back to his truck – with the bear following the whole way. Normally he carries a second canister in his cruiser vest. However, he had just switched vests and the second canister was left behind. Why did the trigger stick? It may have been a manufacturing defect. Another suspicion was pitch or other fine debris in the sides of the trigger jamming it open.



Part of your visual inspection before field work is to examine the trigger area. Periodically clean the trigger with dental floss or a strong thread. To do this, leave the safety on and move the floss from the safety end to the nozzle end of the trigger. Do this outdoors.

As with any pressurized container, keep bear spray away from sources of heat. In the summer of 2012 a forestry worker left a canister of bear spray on the dash of the pickup. Outside the temperature reached 39°C, so the dashboard was a lot hotter. The canister burst, leaving a thin film of very hot pepper on all surfaces. The truck was unusable for some time and had to be professionally cleaned. Always transport in the ABS container. Open the ABS container outside and away from your vehicle.

### ***It's Your PPE – Your Safety Gear***

Bear spray is part of your personal protective equipment. Always carry it with you while working in the field and while recreating. Bear spray has proven effective on a wide range of animals – from zoo tigers, to bears, cougars, wolves and even marauding African elephants. It is potent so handle with care and learn to carry and use it correctly. It could be a life saver.

Questions?

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