

# SAFE USE OF FIREARMS IN HUNTING SITUATIONS

Goal: To promote safe participation in hunting activities by introducing basic firearm and hunting safety principles and practices.

## Lesson 1: Ground Blinds, Waterfowl Hunting Blinds and Elevated Stands

In this lesson you will:

- Determine how to make a firearm safe while entering or exiting a ground blind, waterfowl hunting blind or elevated stand.
- Recognize how to prevent serious injury or death from a treestand fall.

### Ground Blinds

A portable ground blind can help conceal you while hunting, especially for wild turkey and deer. Vendors offer a wide variety of ground blinds to choose from.

- Some consist of a camouflage sheet that screens the hunter from the game by providing cover on one or more sides.

- Other ground blinds are similar to popup tents and include specially designed windows, floors, a ceiling and black interior walls and camouflage exterior walls to help keep hunters hidden.

### Basic Safety Rules for Hunting with Ground Blinds

Before hunting with a ground blind, check the hunting regulations for the state or province where the hunt takes place to determine what specific requirements must be met for its use.

between the game animal and the hunter and not beyond the game animal that another hunter shoots at.

For example, when goose hunting in a cornfield with other hunters, set up layout blinds close by one another so the birds will not try to land between the blinds. Similarly, when two or more hunters use blinds to hunt deer or turkeys, set up the blinds so hunters



*Set up layout blinds close together so the birds won't land between them.*

cannot take shots in the direction of another hunter's blind.

Set up the hunting area so that an approaching hunter will know the location of the ground blind, leave the area and not shoot in that direction.

When hunting from a ground blind:

### Observe the four basic firearm safety rules (ACTT):

- **Assume** every gun is loaded.
- **Control the muzzle**—point guns in a safe direction.
- **Trigger finger**—keep your finger outside the trigger guard until ready to shoot.
- **Target**—be sure of your target and what lies beyond.



*Never place a ground blind so it is in the line of fire between another hunter and a game animal.*

In a ground blind, the hunter is on the ground and hidden from game animals and other hunters. Never place a ground blind so it is in the line of fire between another hunter and a game animal—not







*Always unload your firearm when entering and exiting the blind.*

Other safety guidelines when hunting from a ground blind include:

- Unload the firearm when entering and leaving the blind.
- If hunting with one or more partners, be careful about muzzle control because of the small space.
- Determine zones of fire before the hunt begins.
- Display hunter orange at the hunting area so it is visible to anyone who may approach.
  - o Attach a hunter orange flag in a prominent place on top of the blind.
  - o Wrap a hunter orange ribbon around a nearby tree.
  - o Use a ground blind that was made with a hunter orange roof.
  - o Post caution signs in the area.

### Waterfowl Hunting Blinds

Before waterfowl hunting with a blind, check the hunting regulations for the state or province where the hunt takes place to determine what specific requirements must be met for its use.

Waterfowl hunters may use a variety of blinds for hunting ducks and geese, including:

- Layout blinds for use in fields
- Pit blinds for use on the bank of a lake, river or other water body
- Boat blinds for floating on lakes, rivers and shoreline areas.



*Layout Blind*



*Pit Blind*



*Boat Blind*

### Basic Safety Rules for Waterfowl Hunting with Blinds

When hunting from a waterfowl hunting blind:

#### Observe the four basic firearm safety rules (ACTT):

- **A**ssume every gun is loaded.
- **C**ontrol the muzzle—point guns in a safe direction.
- **T**rigger finger—keep your finger outside the trigger guard until ready to shoot.
- **T**arget—be sure of your target and what lies beyond.

Other safety guidelines when hunting from a waterfowl blind include:

- Unload the firearm when entering and leaving the blind.

- If hunting with one or more partners, be careful about muzzle control because of the small space.
- Determine zones of fire before the hunt begins.

Waterfowl hunting often occurs on or near bodies of water. Conditions may include:

- Wet
- Cold and slippery
- Fog
- Rain
- Snow
- Ice
- Mud

In addition, hunters typically enter and exit the blind in the dark. In extreme weather conditions, hunters must be especially cautious

*Use extra caution while hunting in bad weather.*



to maintain control of their firearms at all times.

If there is any doubt about safety, stop and unload the firearm before continuing. It is always better to be safe than to have a hunting-related shooting incident.

**When waterfowl hunting in a boat, everyone in the boat should be wearing a Personal Flotation Device (PFD)—at all times.**



## Elevated Stands— Always Wear a Full Body Safety Harness

This hunter safety message is vitally important to every hunter who uses an elevated stand: always use a Full Body Safety Harness when climbing up or down, and when sitting or standing in a treestand.

A treestand may be placed 10, 15 or 20 feet above the ground. But regardless of how high the stand is placed in the tree, it's a long way to fall.

Failure to wear a Full Body Safety Harness can result in serious injuries such as broken bones, becoming paralyzed for life or even death.

Read and understand the manufacturer's warnings and instructions. Become familiar with proper use and adjustment of the Full Body Safety Harness. Carefully inspect the Full Body Safety Harness before each use and check the expiration date printed on the label. Follow the manufacturer's replacement recommendations on the label if the Full Body Safety Harness is damaged, expired or stressed as a result of falling from a treestand while being worn.

A Full Body Safety Harness should be properly worn and



*Adjust the length of the tether tied to the tree so there is no slack when you are sitting.*



*Always wear a full body safety harness when hunting from a treestand.*

attached to the tree from the moment the hunter leaves the ground until he/she is safely back down.

Always adjust the length of the tether tied to the tree so there is no slack when sitting. Fasten the tether to the tree at or above head

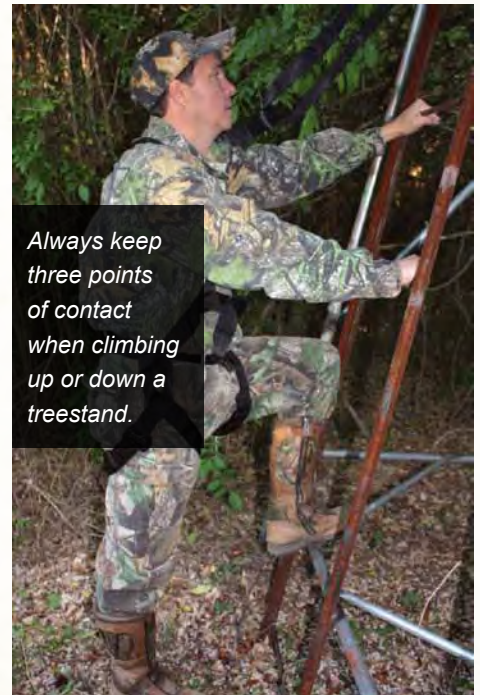
height. This minimizes risk of injury and allows a faster recovery if the hunter experiences a fall. Never allow the tether strap to get under the chin or around the neck.

## Safety Rules for Treestand Use

Treestand injuries and fatalities can be prevented. When hunting from a treestand, follow these additional safety procedures:

- Use a full body safety harness.
- Follow manufacturer's recommendations.
- Inspect all parts of the treestand and tree.
- Choose a healthy, living tree.
- Have the safety strap attached.
- Use a haul line to transport hunting equipment into and out of a treestand.

- Never put all body weight on one place.
- Keep three points of contact when taking the next step up or down the treestand in case a hand or foot slips—two points of contact are still holding.
- For hang-on stands, climb higher than the stand and step down into the stand to maintain three points of contact and prevent a fall.



*Always keep three points of contact when climbing up or down a treestand.*

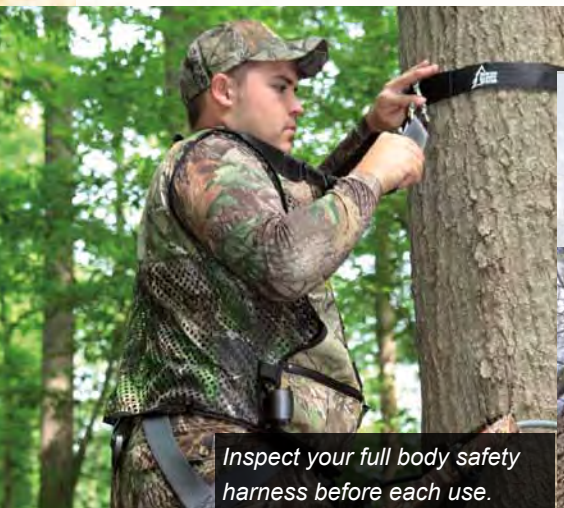
- Wear foot gear with non-skid soles.
- Do not fall asleep in a treestand.
- Tell someone when and where the hunt will take place and expected time of return.
- Bring a cell phone or radio.

## Varieties of Treestands

Today, there is a wide variety of treestands to choose from.

### Hang-on stands

A hang-on stand is mounted to the tree usually with a strapping system. The stand itself consists of a metal frame, a platform to stand on and a seat. The seat and the platform may be folded down for easy carrying to the hunting site. Cables on each side secure the platform for the hunter to stand on when it is in the down position.



*Inspect your full body safety harness before each use.*

*Use a haul line to transport hunting gear into and out of treestand.*







Hang-on Stand

Position the treestand to climb higher and step down into the stand.

Always follow the treestand manufacturer's instructions for attaching any stand to a tree. And always use a Full Body Safety Harness.

To put the hang-on stand onto the tree, the hunter will need to use a tree climbing system.

### Climbing sticks and tree steps

Climbing sticks easily attach to a tree with straps, enabling the hunter to climb the tree to the desired height and then secure the hang-on stand onto the tree.



Climbing sticks



When used properly, climbing sticks do not damage the tree and provide quick access to the hang-on treestand.

Before climbing, always inspect the climbing sticks to make sure they are in good condition and have not been vandalized or damaged from use.



There are also tree steps that screw into the tree.

ORM does not recommend use of screw-in tree steps, because they can damage the tree—providing an entry point for insects and diseases. Plus, if screw-in tree steps are not removed, they can damage tree harvesting equipment, such as chain saws, if the tree is taken down for a saw log or firewood.

Before using screw-in tree steps, check with the private landowner. Screw-in tree steps may not be permitted on public hunting land. Check the hunting regulations for more information.

### Climbing stands

A climbing treestand consists of two main parts—a seat and a platform—that the hunter uses together to climb up the tree.

Where the parts press against the tree trunk, there are cleats that



Climbing Stand

bite into the tree bark for a secure hold. With the tree trunk pinched between these cables at the top and the cleats below, the hunter climbs up the tree.

When using a climbing treestand, always be certain that the tag line connecting the seat and the platform is secure to prevent the platform from dropping beyond reach when climbing.

Always follow the treestand manufacturer's instructions for attaching any stand to a tree. And always use a full body safety harness.

### Ladder stands

A ladder stand consists of a metal ladder leading to a platform at the top that may or may not have a security rail. Ladder stands may be designed to hold one or two people.

In comparison to other



Ladder Stand

treestands, ladder stands are heavy and bulky, so the hunter who intends to use one should work with a partner to assemble and mount it to the tree.

The most hazardous part of setting up a ladder stand onto a tree is when someone must climb the ladder the first time to attach the security straps and then fasten the ladder stand to the tree.

Always follow the treestand manufacturer's instructions for attaching any stand to a tree. And always use a full body safety harness.



## Tripod stand

A tripod stand does not require a tree. It's a standalone device that can be placed anywhere such as an open field or an open space in a wooded area.

It consists of a metal framework that has three legs, one of which has a ladder, and a stand at the top where the three legs meet.



Tripod Stand

Tripod stands may be designed to accommodate one or more hunters.

Due to the weight and bulk of the tripod stand, a hunter should work with a partner to erect this type of stand.



Due to safety reasons, ORM does not recommend building or using homemade treestands.

Always follow the treestand manufacturer's instructions for assembling and positioning any stand for hunting. And always use a full body safety harness.

## Advantages of Hunting from Treestands

Why do hunters use treestands? Hunting above the ground provides the following advantages:

- At 10 to 20 feet above ground, the hunter's scent may not be detected by game.
- Most game species do not look up for predators.
- The hunter may have a wider field of view.
- The elevated position of the treestand provides safety to the hunter from other hunters who



- may be shooting in the area.
- After shooting, the hunter can wait patiently for the animal to die. By not spooking game, it is easier to locate and recover the animal.
- Because of the downward angle of the shot, the ground acts as a backstop helping to assure a safe shot.

## Disadvantages of Hunting from Treestand

There is also a trade-off when hunting from a treestand. Consider these disadvantages.

- The biggest risk is injury from falls that can occur when climbing up or down or sitting in a treestand.



Never hunt from a homemade treestand.

- The hunter may experience muscle cramps and become cold because treestand hunting involves very little movement.
- Hunting from a treestand requires greater patience than hunting from the ground.

When hunting from a treestand, take steps to avoid having these problems, and the hunt will be safe, satisfying and fun.

Hunt safe.

## Lesson 2: Crossing Obstacles

In this lesson you will:

- Explain how to safely cross obstacles or hazardous terrain.

Hunting includes making the right choices for personal safety at all times and especially when crossing an obstacle, such as a fence, stream, downed tree, slippery ground or rock wall.

## Hunting Alone

When hunting alone and there is an obstacle to cross such as a barbed wire fence, follow these instructions:

First:

- While keeping the muzzle pointed in a safe direction,





*Unload your firearm before crossing a fence.*

**UNLOAD** the firearm.

Then,

- Keep the firearm action **OPEN**.
- Keep the firearm safety **ON**.



*Keep the firearm action open when crossing an obstacle.*

Do not carry the firearm over or through the fence. Place it on the ground where it can be retrieved after crossing.

But first:

- **PROTECT** the muzzle from dirt or debris by placing a hat, cap or scarf over the muzzle.



- Carefully lay the firearm on the opposite side of the fence, log or other obstacle.
- Cross the obstacle at a safe distance from the gun, however; always cross facing the butt of the firearm—not the muzzle.
- After safely crossing the fence, retrieve the firearm.
- Inspect the firearm and remove any debris.

- Reload the firearm, close the action, and keep the safety **ON** until ready to shoot.

**NOTE:**

The hunt may take place on another person's property such as a farmer's land. That fence and the land belong to the landowner. Respect the landowner's property by crossing fences properly and safely.

Do not climb a barbed wire fence at the post. Either crawl through the wires if there is enough space or crawl under the bottom wire. When climbing at the post, the staples may pull out of the post or the hunter's weight could break a wire causing a fall and serious injury.



*Don't climb a barbed wire fence. Either crawl through or under the wires.*

It is not possible to crawl under or through a woven wire fence, so it is necessary to climb over it.



*Woven Wire Fence*

Feel the wires for tightness. Search for a post that is firmly supported in the ground. Carefully climb up and over the fence.

Follow these safety procedures for zigzag split rail fences, post and

rail fences, rock walls, fallen trees, creeks, gullies and streams.

**Hunting with Companions**

Consider what to do when hunting with one or more companions and the hunting party must cross an obstacle.

All of the rules for crossing an obstacle when hunting alone should be followed when hunting with others. Everyone should always follow the rules for safe firearms handling and to make things easier and safer, they should help each other.

- Keep the muzzles pointed in a safe direction
- Keep fingers out of the trigger guards
- **UNLOAD** all firearms
- Keep the actions **OPEN** on all firearms
- Keep the safeties **ON** for all firearms

Do not carry the firearms over or through the fence. Use one of the following two methods:

- Each hunter can take a turn placing the gun on the ground and crawling under or through the fence facing the butt of the firearm.



- Hunters also can help each other for safe fence crossing—taking turns holding firearms, crossing and passing firearms over the obstacle. Each person in the hunting party helps in this manner until everyone has crossed the obstacle safely and the firearms are returned to their owners.

After the safe crossing, everyone in the hunting party can reload their firearms and resume the hunt.



Take turns holding firearms, crossing and passing firearms over the obstacle.



Either option is okay, but helping each other is better because it involves cooperation and sportsmanship.

Hunting, like any activity, requires good judgment. However, hunting is different from other sports because hunters carry firearms. One mistake in judgment could result in serious injury or death for you, a fellow hunter or a nonhunter.

When encountering an obstacle while hunting, a hunter must decide what action to take for personal safety and for the safety of others. Don't just charge forward. Nature is beautiful, but if something bad happens, the situation cannot be reversed. One mistake can be disastrous. Fortunately, because of hunter education and the good judgment of millions of hunters, young and old, hunting is safe.

Be patient. Be thoughtful. Hunt safe!



Use good judgment when faced with an obstacle while hunting.

### Faced with an obstacle while hunting:

- Unload the firearm.
- Keep the action open.
- Keep the safety in the "on" position.
- Protect the muzzle from debris.

### Obstacles that hunters commonly encounter:

- Fences
- Streams
- Steep banks or hills
- Rocky ground
- Wet and moss-covered stones
- Snow or ice
- Blow-down or other log-strewn areas
- Heavy brush and dense limbs

### Lesson 3: Safe Zones of Fire

In this lesson you will:

- Demonstrate knowledge of zones of fire while hunting two / three abreast.

The "zone of fire" is the area into which a hunter may shoot safely.



A safe zone of fire is where there are no people, domestic animals, flammable materials or buildings occupied by people, domestic animals or flammable materials.

In a safe zone of fire there are:

- No people
- No domestic animals
- No flammable materials
- No buildings that could be occupied by people, domestic animals or flammable materials

It is the hunter's responsibility to know that a shot is safe. Never take a shot that places other people, animals or property in danger.

### Hunting Alone

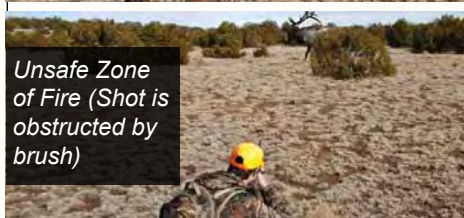
When hunting alone, a safe zone of fire depends on:

- How much of the area the hunter can see clearly, which is known as field of view.
- The location of trees, rocks, water and other unsuitable targets in the area.
- The firearm's range.

Study each of the following situations to understand what makes a zone of fire safe or unsafe.



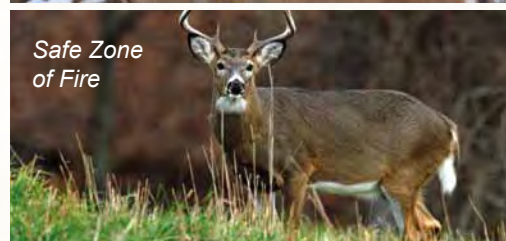
Safe Zone of Fire



Unsafe Zone of Fire (Shot is obstructed by brush)



Unsafe Zone of Fire (Shot is obstructed by tree branches)



Safe Zone of Fire



Safe Zone of Fire



Unsafe Zone of Fire (Animal is out of rifle range)



Safe Zone of Fire



Unsafe Zone of Fire (Animal is out of shotgun range)



## Hunting with Others

For safety, a hunting group should be limited to two or three people. If the total number of hunters is four or more, they should organize two or more small groups that hunt in separate areas or at different times. When hunting in a group, you must know where the other hunters are located at all times.

When hunting with others, a zone of fire depends on the location of each person in the group. For safety reasons, each hunter in a group must respect other hunters' zones of fire.

and right have broader zones of fire because they may turn to shoot at game farther to the outside. The hunter in the middle position should not shoot outside of the 45 degree angle because doing so would endanger a hunting partner to either side.

When a group of hunters move through a hunting area:

- They must keep a straight line and remain in sight of the other hunters at all times.
- No one should get ahead of the group and no one should fall behind the group.

## Lesson 4: Carry Methods

In this lesson you will:

- Identify safe carry positions for firearms in the field.



There isn't just one way to carry a firearm while hunting. The best method depends on the situation. Safety is the most important factor when deciding the best way to carry a firearm, whether hunting alone or with others. When hunting with others, everyone in the hunting party should talk with each other about the best field carries for each one. What may be the best carry at one point in the hunt may not be safe for a different situation.

A gun may weigh only 5 or 6 pounds, but it can get heavy after carrying it a while in the field. Hunters should know the different carries so they can switch carry methods to provide relief for tired arms while remaining safe.



Two-Hand (Ready) Carry

### Two-Hand (Ready) Carry

This is one of the safest ways to carry a firearm while hunting. It's called the Two-Hand (Ready) Carry.

Hold the gun with both hands. The shooting hand is holding the gun at the grip area and the non-shooting hand is holding the gun at the forend area. For left-handers, the two holds on the firearm are reversed.

A group of pheasant hunters will fan out to hunt a portion of a field. Before they begin hunting the field, they should determine zones of fire for each hunter.



This is a useful technique for members of a hunting group to determine zones of fire.

1. All hunters face the hunting area at the position where they expect the hunt to begin. Standing in a straight line, all hunters should be in sight of one another.
2. Each hunter should hold both arms straight out from his or her chest with thumbs up.
3. Next, the hunters widen their arms until they make a 45 degree angle, with their chest as the focal point of the angle.
4. While looking straight ahead and not turning their head or moving their eyes, the 45 degree angle will allow each hunter to see their thumbs clearly.

The hunter in the middle of the group has a narrower zone of fire because of the intersecting zones of fire. Hunters on the left



The hunter in the middle of the group has a narrower zone of fire because of the intersecting zones of fire.

- When game animals come into the field, the hunters take turns shooting so everyone in the group has an opportunity.
- The area behind the hunters is off limits—no one shoots to the rear.

While it is somewhat easy in an open field for a group of hunters to stay in line and in sight of each other, it can be more difficult for a group to hunt in areas with gullies, game trails, and cover such as trees or brush. As the group of hunters

move through a rough area, each hunter adjusts his or her zone of fire based on the area out front and the location of hunting partners.



By using this technique, each hunter in the group can easily see the safe zones of fire.



### Benefits

- The Two-Hand (Ready) Carry provides good control of the gun, helping to ensure the muzzle is pointed in a safe direction.
- When using this carry method, the hunter is ready to take a shot at almost any time.

### When Not to Use

- Never use the Two-Hand (Ready) Carry when someone is on the same side as the muzzle.



Sling Carry

### Sling Carry

A firearm may have a sling attached to the forend and the buttstock, which can be used to carry the gun.

To use the Sling Carry, pass an arm through the sling, so the gun hangs off of your shoulder. The hunter who uses the Sling Carry also should steady the gun with their hand when they are walking. When

using the Sling Carry, the hunter should always grasp the sling to keep the gun from falling off the shoulder.

To take a shot at game when using the Sling Carry, first reach up with the opposite hand, remove the sling from the shoulder, then hold the gun in the Two-Hand (Ready) Carry position. From there, bring the gun buttstock up to the shoulder for a shot.

### Benefits

- If one shoulder gets tired, the hunter can easily shift the gun so



it hangs off the other shoulder.

- Also, if a hunter is standing still, the Sling Carry makes it easy to use binoculars or a game call.

### When Not to Use

- The Sling Carry is not a safe way to carry a firearm in areas where the ground is rocky, slippery, hilly, brushy or contains other obstacles. It's more difficult to control the firearm in rough terrain, and the sling could easily slip off your shoulder.

### Elbow (Side) Carry

For the Elbow (or Side) Carry, tuck the gun stock under the armpit, then grab the forearm with the hand to carry the gun. If left-handed, the carry technique would be just the opposite.

With the Elbow (or Side) Carry, the muzzle is pointed at an angle toward the ground. So you must watch to ensure the muzzle does not come in contact with the ground, as with a gully or a snow bank, for example. Never allow a gun barrel to become plugged with mud, snow, ice, or twigs and leaves. The barrel must be free of any obstructions, or it could explode when the cartridge is fired.

### Benefits

This gun carry position is safe to use when walking in open terrain.

### When Not to Use

- The Elbow (or Side) Carry would not be safe to use when hunting in dense brush and other obstacles, because both hands are not on the gun. If a limb suddenly snagged the gun, it could pull it out of the hunter's hand or force the muzzle in an unsafe direction.



Elbow (Side) Carry

- Also, never use the Elbow (or Side) Carry when someone is walking in front, because the muzzle of the gun will be pointing in the direction of another person.

### Cradle Carry

For the Cradle Carry, the hunter places the gun across the right arm—in the crook of the elbow—with that arm turned back to the gun's forend, while holding the gun steady with the other hand at the grip area. This carry method can be reversed for left-handed or right-handed carry.

The Cradle Carry is less secure than the Two-Hand (Ready) Carry because the non-firing hand can't really grab hold of the gun. So, only one hand has the gun in control—and that may not be enough. However, if somebody is walking behind or in front, then it would be a safe way to carry the gun.

### Benefits

The Cradle Carry is a comfortable way to carry a firearm.

### When Not to Use

- The Cradle Carry position would not be safe if somebody is walking on the same side of the hunter as the muzzle is pointing—and it may make a difference if the person with the gun is left or right-handed.
- Never use the Cradle Carry if someone is standing or walking on the same side as the muzzle is pointing. This carry method is safe for right or left-handed carry by anyone—but the hunter must always think about where the muzzle is pointing.



Cradle Carry





Trail Carry

### Trail Carry

For the Trail Carry, hold the gun with one hand, in the middle where it is balanced, and let it hang by the side of the body.

This is actually called the horizontal Trail Carry.

The hunter can walk along

relaxed, with both arms extended at the sides, except that one arm is carrying the gun.

Another Trail Carry option is to tuck the buttstock of the gun under the armpit.

Regardless of which type of Trail Carry option, always remember there is not much control of the gun in case of stumbling or tripping. The Trail Carry gives less control of the gun than the Two-Hand (Ready) Carry, so it should not be used in rough or brushy areas in case of a fall.

### Benefits

It is a good choice when hunting alone. Also, it is a safe gun carry when others are behind or to the side.

### When Not to Use

Never use the Trail Carry when someone is standing or walking in front—not hunting partners or hunting dogs.



Shoulder Carry

### Shoulder Carry

For this carry position, use the shooting hand to place the gun on the shooting shoulder, like soldiers do in a parade, with the shooting hand holding onto the buttstock.

This carry offers the least amount of control. It could slip off of the shoulder while walking.

### Benefits

Another option for carrying a firearm while giving tired arms a break.

### When Not to Use

The Shoulder Carry should never be used in hilly, stony or other areas of rough terrain or where there is brush.

Also, the Shoulder Carry should never be used when someone is behind.

Finally, if hunting in a hunting party and everyone is walking abreast in a line, the Shoulder Carry is unsafe when someone decides to make a turn because their gun's muzzle may point in the direction of a fellow hunter.

## Lesson 5: Shot Selection

In this lesson you will:

- Explain how to make safe shot selections when presented with safe/unsafe and/or ethical/unethical shot opportunities.

### Safe and Unsafe Shots

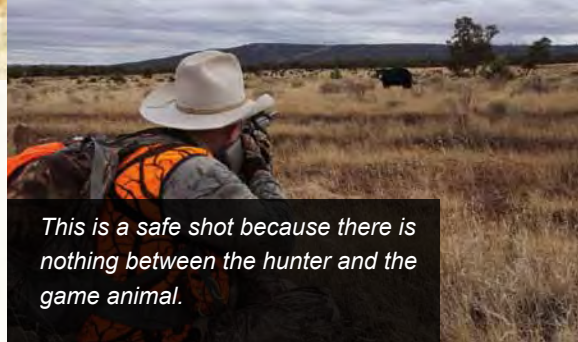
Hunting wild game is exciting and the hunter must be ready to deal with constant challenges from the game pursued, contours of the land (including gullies, hills, mountains, open fields or dense brush, streams and open water), light and darkness, and weather conditions.

A safe shot is when the hunter:

- Sees the game clearly and identifies it positively as the animal pursued.

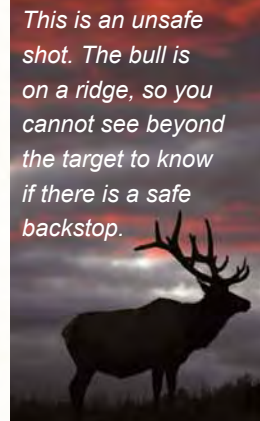


Rough terrain is one factor hunters must be ready to deal with to remain safe.



This is a safe shot because there is nothing between the hunter and the game animal.

- Knows there is nothing between him or her and the game animal.



This is an unsafe shot. The bull is on a ridge, so you cannot see beyond the target to know if there is a safe backstop.

- Knows there is a safe backstop for the bullet or projectile, in case of a miss or the bullet passes through the game.

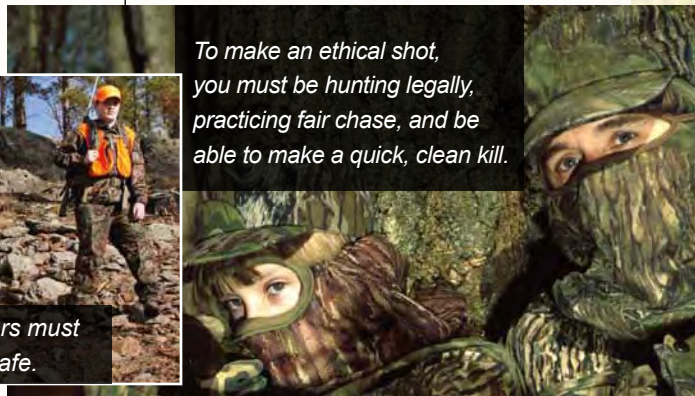
- Knows there is no person; domestic animal; flammable materials; or buildings that house people, domestic animals, or flammable materials within range in the direction of the shot.

## Ethical and Unethical Shots

### What Is an Ethical Shot?

Hunters kill wild game animals by shooting them with a firearm or bow. A particular shot is ethical when it is a legal hunting activity, allows for fair chase and harvests the animal with a quick, clean kill.

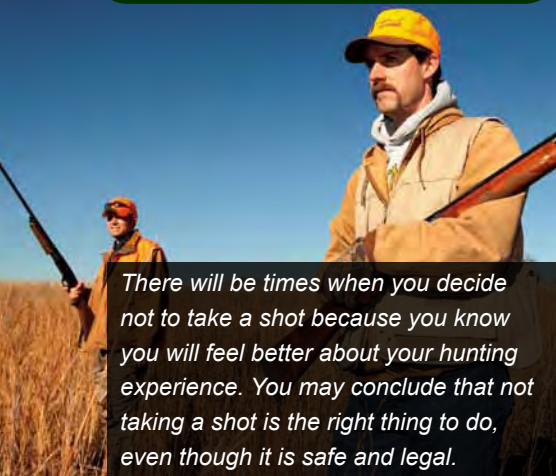
Shooting at game is not accidental; it is intentional. To take an ethical shot at game involves the hunter making a personal decision about how and also why to shoot at game.



To make an ethical shot, you must be hunting legally, practicing fair chase, and be able to make a quick, clean kill.



When hunting with others, they will likely know a shot is ethical. They may compliment the shooter by saying: “Good shot!” If they think someone took an unethical shot, they will criticize the act by saying something such as: “Why did you take that shot?”



There will be times when you decide not to take a shot because you know you will feel better about your hunting experience. You may conclude that not taking a shot is the right thing to do, even though it is safe and legal.

Sometimes it is easy to determine if a shot would be ethical or unethical. At other times, it is not so easy. For instance, imagine hunting doves with two companions.

The others have already limited out. There are more birds in the field. Should you limit out, too?



The ultimate test of personal ethics occurs while hunting alone and there is an opportunity to shoot at a game animal, but taking that shot crosses the line between what the hunter believes is ethical and unethical.

The hunter who takes ethical shots shows respect for game animals, hunting laws and the tradition of hunting, even when nobody is looking.

## Lesson 6: Obstructions in Barrels

In this lesson you will:

- Explain how to determine if a barrel is free from obstruction and how to safely clear the obstruction.

An obstruction in a firearm barrel can be dangerous to the shooter and others who are nearby. If a



gun is fired with an obstruction in the barrel, it may cause the barrel to explode, sending fragments everywhere. Or it may damage the action, making the gun unsafe to use or inoperable.

Know how to prevent an obstruction in a gun barrel and also how to safely clear the barrel of an obstruction.

## Common Kinds of Obstructions

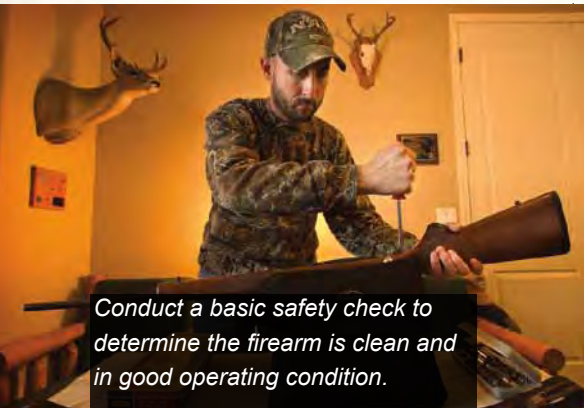
### How to Safely Clear a Gun Barrel

When handling a firearm, conduct this basic safety check to determine if it is clean and in good operating condition. Follow these procedures to conduct a safety check.

**This list presents the common kinds of obstructions found in gun barrels. In nearly every instance, they result from neglect or misuse of the firearm.**

- **Problem:** Rust may result from storing firearm in moist environment, such as a basement, without protection
  - o **Solution:** Clean the gun properly after every use, place it in safe storage, and inspect it at regular intervals.
- **Snow:** accumulates in a gun barrel when a hunter presses muzzle into the snow or snow falls into barrel when the muzzle is pointed upward.
  - o **Solution:** During cold weather, prevent snow and ice from entering the muzzle by putting light tape or balloon over the muzzle.
- **Problem:** During cold weather with rain or snow fall, water or wet snow can accumulate in a gun barrel and freezes to form an ice plug.
  - o **Solution:** During cold weather, prevent water from entering the muzzle by putting light tape or balloon over the muzzle.
- **Problem:** Barrel becomes plugged with mud when a hunter stabs muzzle into the ground.
  - o **Solution:** Prevent the muzzle from touching the ground.
- **Problem:** Tree bark and sticks may accumulate in the gun barrel when hunter leans a gun against a tree.
  - o **Solution:** Never lean the firearm against a tree trunk or any place where debris may fall into the barrel.





Conduct a basic safety check to determine the firearm is clean and in good operating condition.

First:

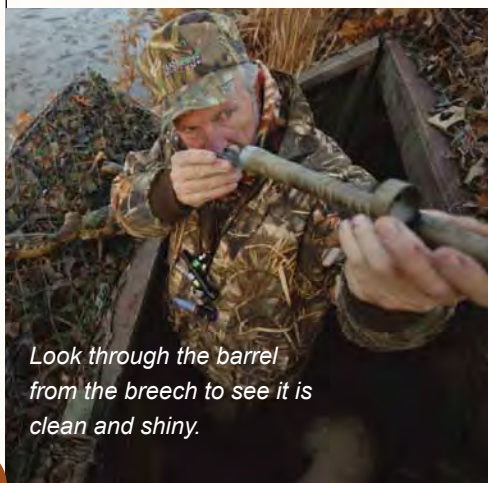
1. Assume every gun is loaded.
2. Control the muzzle—point the gun in a safe direction.
3. Trigger finger—keep your finger outside the trigger guard.

Next:

1. Check to see that the safety is on SAFE, if the gun is equipped with a safety.
2. Open the action.
3. Inspect the chamber or chambers, if more than one, to see there is no ammunition present.
4. Remove the magazine, if the gun is equipped with a magazine or inspect the tubular magazine to see there is no ammunition present.

- **Problem:** Insufficient pressure from cartridge firing may push bullet only part way through the barrel.
  - o **Solution:** If the gun did not sound or feel right when taking a shot, the cartridge may have been faulty, causing the bullet to be stuck in the barrel.
- **Problem:** Ramrod left in the barrel of a muzzleloader after loading.
  - o **Solution:** Remove the ramrod after loading a muzzleloader.
- **Problem:** Grease accumulates in gun barrel.
  - o **Solution:** Do not use grease to clean a gun barrel.
- **Problem:** Gun cleaning materials such as cleaning tips or patches are left in gun barrel.
  - o **Solution:** Keep track of all parts and materials used to clean a gun.

5. For the break open action firearms, look through the barrel or barrels from the breech to see it is clean and shiny.
6. For bolt action firearms, remove the bolt and look through the barrel from the breech to see it is clean and shiny.
7. For lever action firearms: exercise great caution. With the action open, use a bore light to examine the barrel.
8. For pump action firearms, remove the barrel and look through it from the breech to see it is clean and shiny.
9. For semi-automatic firearms, remove the barrel and look through it from the breech to see it is clean and shiny.



Look through the barrel from the breech to see it is clean and shiny.

If you removed the barrel, reassemble the firearm.

Work the action closed and open to determine that the gun operates properly.

Keep the action open and the safety in the "SAFE" position, if equipped with a safety, until you decide what to do with the firearm.

## Lesson 7: Hunter Orange

In this lesson you will:

- Understand the importance of and regulations about wearing hunter or blaze orange clothing while hunting.

## Why Wear Hunter Orange?

Wearing hunter or blaze orange makes hunters highly visible to other hunters. In the U.S., 40 states require hunters to wear hunter orange while hunting, with exceptions made for hunting some species such as wild turkey or waterfowl.



Wearing blaze orange while hunting will make you more visible to other hunters.

The purpose for requiring hunters to wear hunter orange is to help reduce the likelihood of a vision-related shooting incident, which occurs when a hunter:

- Mistakes another person for game.
- Does not check in front of or beyond the target before shooting.
- Fires the gun in the direction of another hunter while swinging on game.

Study these photos of hunters wearing blaze orange, regular clothes and camouflage so you can see the difference.







Hunter Wearing Camo



Hunting Wearing Regular Clothes



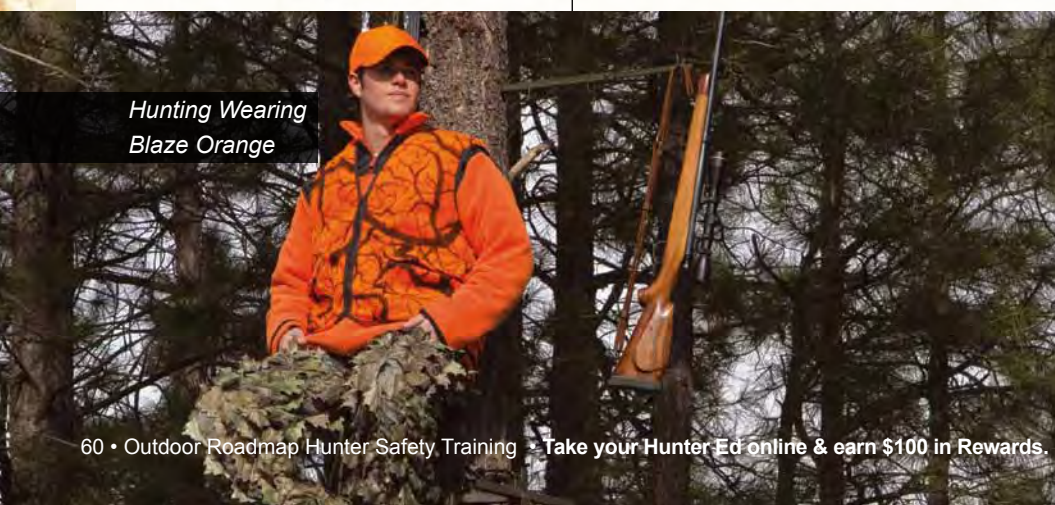
Hunting Wearing Blaze Orange



Hunter Wearing Camo



Hunting Wearing Regular Clothes



Hunting Wearing Blaze Orange

In some states and provinces, there may be no hunter orange requirement. The Outdoor Roadmap (ORM) urges all hunters to wear hunter orange when hunting.

### Will Hunter Orange Reduce My Hunting Success?



Most game species rely on hearing and smell to detect danger or to determine the location of their prey. Their eyes enable them to see better than humans can see in low light conditions and also to detect movement. Except for the wild turkey and waterfowl, most game animals have poorer color vision than humans.

Success as a hunter depends on your knowledge of the game species combined with your shooting skill.

Know this about wildlife to become a better hunter:

- What they eat
- Where they sleep
- What signs they leave
- What trails or runs they use
- How they behave when alone or in groups
- When they move
- How they react to various and changing weather conditions

**To be safe:**  
wear hunter orange while hunting.





## Lesson 8: Rifle Accuracy Skills

### Objectives

In this lesson you will:

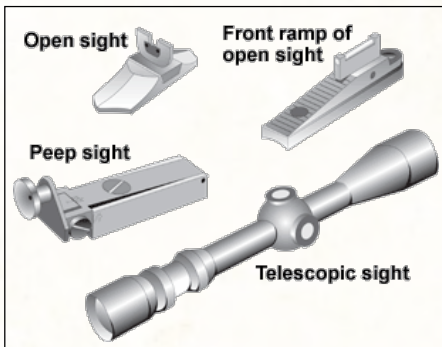
- Identify the fundamental skills for sighting-in a rifle.
- Identify the four positions for shooting the rifle.
- Determine places to shoot.

### Rifle Accuracy Skills

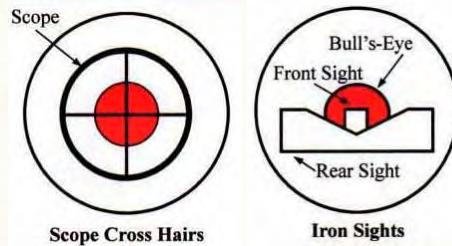
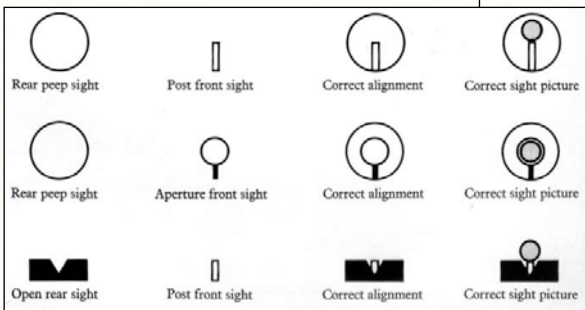
Aiming, breathing, trigger control and follow-through are the fundamental skills for shooting both rifles and handguns. These four skills are related, they are steps that build upon each other for an accurate shot at a target.

#### 1. Aiming

“Aiming” at the target is very important for accurately shooting a rifle or handgun. This requires “sight alignment” and a “sight picture.” Modern firearms offer a variety of different aiming devices to help the shooter hit a target, including iron sights, peep sights and telescopic sights.



“Sight alignment” applies to using iron sights and peep sights, but not telescopic sights. It means lining up the rear sight with the front sight.



Getting a “sight picture” with iron sights or peep sights means placing the front sight on the appropriate part of the target while keeping the rear sight in alignment. When using a telescopic sight, getting a “sight picture” is placing the crosshairs on the target.

#### 2. Breathing

Controlled “breathing” is necessary to shoot accurately. Breathing naturally causes the chest to rise and fall, and when standing also causes the arms to waver slightly. Accurate rifle shooting requires breath control, otherwise the chest and arm movement from normal breathing will change sight alignment and sight picture. The result will be a poor shot on the target.

To get the best shot, aim at the target, take a deep breath, let out about three-fourths of the air, and then stop breathing for an instant while taking the shot.

Sometimes it takes more time to get good sight alignment or to acquire the sight picture, which can cause the shooter to run out of breath. For example, the game animal might have moved and the whole aiming process must begin again.

If the shot takes more time, relax, continue normal breathing, and then repeat the steps for obtaining breath control for an accurate shot. Holding the breath for too long will cause the shooter to lose sight alignment and the sight picture, begin to waver or shake, and the bullet will very likely miss the target.

#### 3. Trigger Control

Correct “trigger control” is also necessary for an accurate shot. The trigger on a rifle or handgun must be “squeezed” with slow and steady pressure by the trigger finger until the gun fires. At the same time the shooter must keep good sight alignment and hold the sight picture.

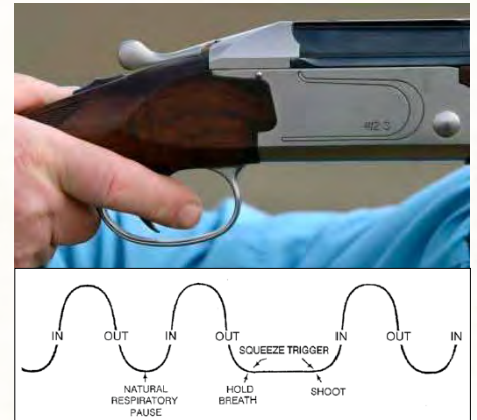
Do not jerk the trigger.

Anything other than a smooth squeeze will throw off sight alignment and the sight picture, and will send the shot off target.

Also, do not tense up before the gun fires. Be relaxed and allow each shot to happen as a surprise.

#### 4. Follow-Through

“Follow-through” is the last step in the firing sequence. It means responding properly to the gun’s recoil the instant that the gun fires. To have good follow-through a shooter maintains sight alignment, the sight picture, breath



control, and trigger squeeze, and, when the gun fires, allows the recoil to take the gun barrel up naturally.

Incorrect movement of the gun immediately before or after the gun fires will cause the bullet to miss the target.

To develop good follow-through, practice shooting at targets with a low recoil rifle, such as the .22 caliber.

Also, count to three after the cartridge fires before lowering the rifle from the sight picture.



## Trajectory

The "trajectory" of a bullet or projectile is the path the bullet takes on its way to the target. Many things make a difference when a bullet is flying to the target, including earth's gravity, air resistance, bullet velocity and bullet mass.

Because of gravity, the actual trajectory of a bullet is an arc, not a straight line. The other factors will

hunting.

Set up a target with a safe backstop at 25 yards.

Follow the four steps for taking an accurate shoot.

Fire three to five test shots.

Examine the target to see that the shots are "grouping," that is they are forming a cluster in a certain area of the target.

If the group of shots is not where the gun was aimed, adjust

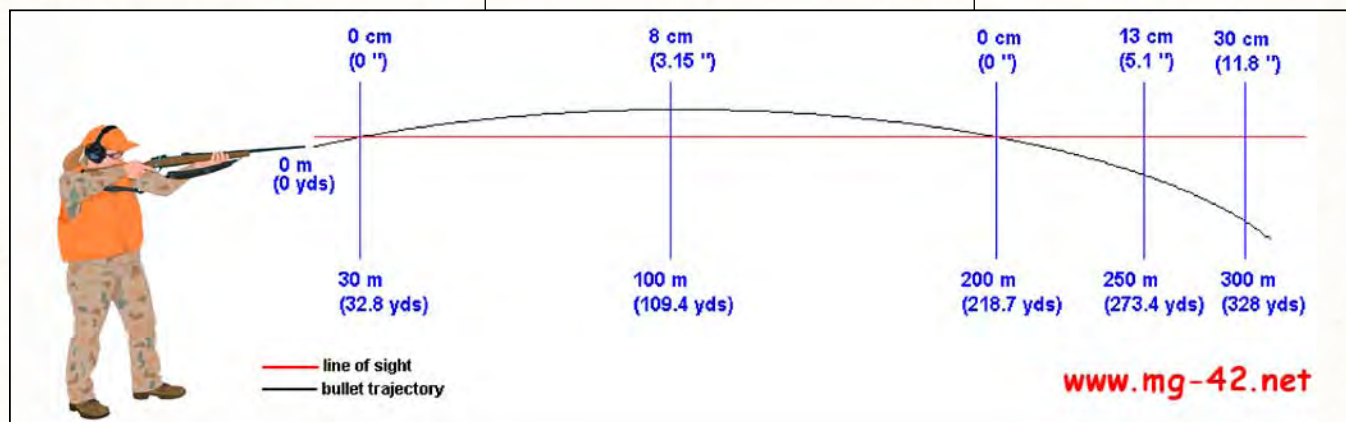
instructors for sight adjustment.

Fire three to five additional test shots.

Again, examine the target to see where the shots are grouping.

Alternate test shots and sight adjustments until the shot groups fall exactly at the point of aim.

Move the target out to ever greater distances for sighting in at 100, 150, 200 and so on depending on the capabilities of the rifle and



cause the bullet to slow down and change direction. If a bullet hits an object, like a twig, on the way to the target, the bullet will ricochet and may miss the target entirely.

## Sighting-In

"Sighting-in" is the first step to becoming a responsible hunter and shooter.

Before using a rifle (or handgun) for hunting purposes or target shooting, bring the gun to a shooting range for sighting-in. When this step has been taken, the gun's sights are adjusted so that the bullet will hit a target at a specific range.

Also, during storage and transport of a gun, the settings for the sights may have changed due to being bumped. A rifle's accuracy should be checked by sighting-in before every hunting season and also after storage or transport.

### How to Sight-In a Rifle

Bring the rifle to a shooting range.

Bring the same type of ammunition that will be used for

the sights. For iron sights, move the rear sight in the same direction that the group must move in order to be at the point of aim. For a telescopic sight, follow the manufacture's

the distances expected for the game animal pursued.

If the shot groups are not close or are scattered widely, check to see that there are no mechanical problems with the rifle, such as loose sights or loose mounting of the barrel to the stock. If scattered groups continue, get help from someone with more shooting experience or from a gunsmith.

To improve accuracy, practice shooting in low as well as bright lighting conditions and with targets placed at various distances.

Practice to develop the skill of acquiring sight alignment, sight picture, breath control, trigger squeeze and follow-through until accurate shots are automatic.

Practice using the firearm to know where the safety is located and how it works and how the action works; become comfortable with the rifle's weight and loading and unloading procedures.

Know the capabilities of the ammunition, its velocity, trajectory and range.

Hang Fire, Misfire and Squib

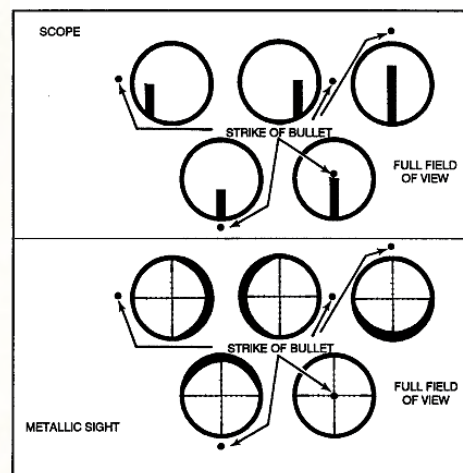
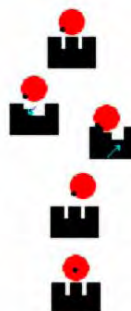


Figure 3-17. Sight alignment.

1. Shot is low and left
2. Move front sight down and left or Move rear sight up and right
3. Sights will now be centered on point of impact
4. Subsequent shots should be on target





## Load

Occasionally, when the trigger is squeezed the gun will not fire immediately. If this happens, keep the muzzle pointed in a safe direction and wait at least 30 seconds.

If the cartridge fires late, that is a "hang fire."

If the cartridge does not fire after waiting 30 seconds, that is a "misfire."

Next, open the action and remove the cartridge. Try to determine if the failure to fire properly is due to the cartridge or the gun.

If necessary, bring the gun to a gunsmith for inspection and repair.

When less than normal pressure or velocity develops after ignition of the cartridge it is called a "squib load." When you experience a squib load, stop firing immediately. Keep the gun pointed in a safe direction, and unload the gun. Make sure the chamber is empty and insert a cleaning rod down the barrel to check that the bullet (for a rifle or pistol) or the wadding of a shotgun shell is not lodged in the barrel.

## Rifle Shooting Positions

The four basic shooting positions for the rifle are prone, kneeling, sitting and standing. For all of these positions, the shooter holds the rifle with both hands. The non-shooting hand holds the fore-end and the shooting hand holds the grip.

### Prone

The prone position has the shooter lying flat on the ground. It is the steadiest shooting position and the best place to begin learning the other positions. It is a good position for making accurate long-distance shots.

The prone position is usually

not a good choice when hunting in tall grass or dense brush, which can block the line of sight to the



target.

If right-handed, lie on the stomach with the torso, legs and feet slightly to the left of the line of aim. If left-handed, move these body parts slightly to the right of the line of aim.

Keep the back straight and legs relaxed. For right-handed shooters bend the right leg at the knee. If left-handed, bend the left leg.

Hold the rifle with the non-shooting hand on the fore-end and the shooting hand on the grip. Place both elbows on the ground at shoulder width and have shoulders curved slightly forward to make a solid upper body position supporting the rifle for accurate shooting.

Place the left elbow as far under the rifle as possible.

### Kneeling

Because the shooting arm is free, this position leaves the shooting arm and elbow unsupported and is not as steady as either the prone or sitting positions. But with practice, the shooter can maintain control and shoot accurately.

Hold the rifle with the non-shooting hand on the fore-end and the shooting hand on the grip.



Turn the body to make approximately a 45° angle to the

target.

Stoop down so the right knee touches the ground and place the left foot forward to remain steady.

Sit comfortably on the heel or the side of the right foot.

Place the left elbow near, but not on, the bony part of the left knee, as far under the rifle as you can. For left-handed shooters, reverse this position.

### Sitting

After the prone position, the sitting position is the next steadiest shooting position. Both short- and long- range shots can be fired accurately from this position.

Hold the rifle with the non-shooting hand on the fore-end and the shooting hand on the grip.

Sit solidly on the ground. Legs may be crossed or open and the



body should be positioned about 30° to the right of the line of aim.

Place the left elbow near but not on the bony part of the left knee.

As in the prone position, tuck the elbow as far under the rifle as possible.

Place the right elbow on or near the right knee. This position forms two triangles, which make a firm support for the rifle.

Hold the rifle firmly but do not grip it tightly.

Bracing the body against something stable such as a tree or rock will help steady the aim for a more accurate shot.

Reverse the position if left-handed.

### Standing

The standing position is the least stable shooting position. It is also the most difficult position



from which to fire an accurate shot. It requires excellent control. The shooter must be skilled in the fundamentals of shooting: sighting, breath control, trigger



squeeze and follow through.

Hold the rifle with the non-shooting hand on the fore-end and the shooting hand on the grip.

Turn the body approximately 90° to the right of the target.

Place feet shoulder-width apart. Support the rifle with the left arm. Hold the left arm against the body for extra support.

Hold the rifle firmly against the shoulder with the right hand. Do not grip the rifle tightly.

If there is too much waver, do not shoot. To help steady the shot, rest or support the rifle on a stable object such as a tree or large rock, shooting sticks or use a carrying strap as a sling.

Reverse the procedure if left-handed.

Rifle shooting excellence comes from continual practice to develop these fundamental skills: sight alignment, sight picture, trigger squeeze, breath control, follow through and shooting position.

### Places to Shoot

Where to shoot is an important question and may include some serious legal and safety issues. Check with the local, state/provincial or federal governments

for any laws or bylaws governing where it is safe and legal to shoot.

The safest place to develop shooting skills is at a local shooting range. Some ranges are free, and some charge fees. Some are run by the county, state or province and open to the public. Others are private and for members' use only, although some private ranges will allow use by a non-member who is a guest of a member.

Shooting ranges are designed and in some cases legally approved for the discharge of certain types of firearms, shooting activities and calibers of ammunition. A typical rifle or pistol range layout will consist of a cease-fire line, firing point, firing line and down range area.

Before using the range, learn the range layout and range rules.

Range Rules and Commands  
Shooting range rules and commands may vary from range to



range. When at a new range, take time to read the range rules and learn the commands used at that range.

The person giving the commands is called the "range safety officer." Always obey the range safety officer. Failure to do so could result in loss of shooting privileges or possibly cause an accident.

### Two typical basic range commands:

"Cease-fire": means stop shooting, unload the firearm, put it down on the bench with the action open and the muzzle pointing down range, and step back behind the cease-fire line.

Anyone who sees an unsafe situation at the range can call





“cease-fire.”

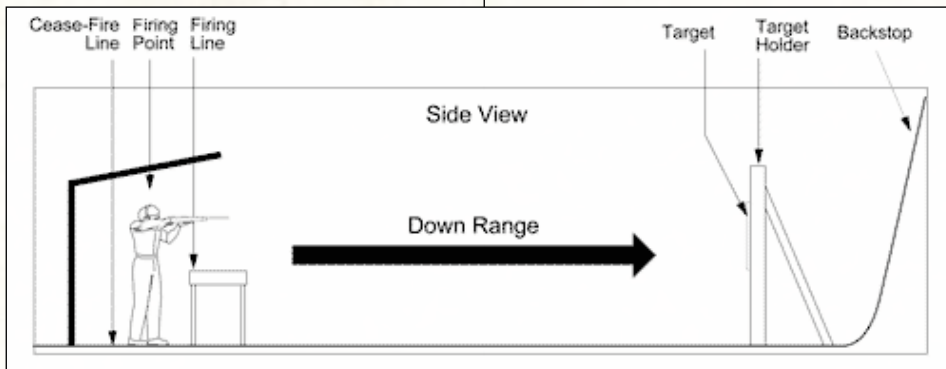
“The range is active” (or “hot” or “live”): means the shooter can load, shoot and unload the firearm.

## Lesson 9: Shotgun Shooting

Objective

In this lesson you will:

- Discover the fundamental



### Range Etiquette

Besides range safety rules, certain standards of etiquette are followed by shooters. Shooting range etiquette means shooters showing consideration of others.

Some examples of proper range etiquette:

Ask the owner's or shooter's permission before handling that person's firearm or equipment.

Avoid interrupting or distracting others while they are shooting.

Avoid rapid-fire shooting if it will disturb those sighting in or doing careful target shooting.

Only shoot on your own target.

Assist new shooters by offering advice or coaching, and sharing firearms.

Be aware of where the brass from the fired cartridge is ejecting, especially while using a semi-automatic firearm.

Move to a different shooting position on the firing line or install a barrier to prevent flying brass from hitting a nearby shooter.

When shooting blackpowder firearms, shoot from a location downwind of other shooters on the firing line.

Clean up after shooting by picking up brass, taking down targets and removing debris.

Leave the range as clean or cleaner than when arriving.

skills for safe, accurate shotgun shooting.

### Fundamentals of Shotgun Shooting

Shooting a shotgun is different from shooting a rifle. A rifle is aimed at the target; a shotgun is pointed at a target in flight. Because of this, the fundamentals of shotgun shooting are different.

Accurate shotgun shooting requires a fast sequence of movements involving the body, gun and eyes. For accuracy, these movements need to be performed in one smooth, coordinated movement.

Some shotguns have adjustable sights that fire slugs

from rifled barrels. These types use the same shooting techniques required for accurate rifle shooting.

However, other shotguns have smooth bores and have non-adjustable rear and front sights, and some have only a front sight. These shotguns are especially suited for shooting at moving targets, like rabbits, doves, quail, grouse, ducks and geese, in addition to clay targets at shotgun ranges.

### Dominant Eye

Before shooting a shotgun you





must first determine on which side you should shoulder the shotgun. If you are right handed it does not necessarily mean your right side is best for shooting. The true test is if you are right or left eye is dominant. To determine which eye is dominant, extend your hands in front of your face, placing them together so that only a small opening remains between them. With both eyes open, focus on a distant object through the small opening between your two extended hands. Close your left eye: if the object is still in the center of the hole, you are right eye dominate. The opposite is true for left eye dominate shooters. Shoulder the shotgun on the side of your dominate eye.

### Shotgun Shooting Stance

The shotgun shooting position or stance resembles that of a boxer in the ring—feet spread apart, standing firm, but with arms and trunk free to swing to the right and the left of the target. This shooting position must feel comfortable and natural to allow quick movement in any direction.

When preparing to shoot, the body weight shifts to the leading leg (left leg if right-handed, right leg if left-handed).

The leading hand holds the



shotgun fore-end and points naturally to the target area.

The shotgun is not aimed, it is pointed at the target.

### Mounting the Shotgun

Bringing the shotgun to the shoulder is called “mounting the gun.” The shooter must place the stock against the cheek first, then against the shoulder. This makes sure the gun is in exactly the same position for each shot.

Do not make the error of raising the gun to the shoulder first and dropping the head to rest the cheek against the stock. This will cause the shot to miss the target.

### Eyeing the Target

Keep both eyes wide open and focused on the moving target, not on the gun barrel or the bead sight.

While watching the target, mount the gun correctly and point it toward the target area.

### Trigger Slap

Do not fire a shotgun with slow, steady trigger pressure as for shooting a rifle. The shotgun trigger is slapped. “Trigger slap” is similar to the act of striking a key on the keyboard with the trigger finger.

Slap the trigger quickly, but not too hard.

### Leading

“Leading” means shooting ahead of the moving target. Leading is necessary when shooting at any moving target. If a shot is taken directly at a moving target, by the time the shot pellets reach that spot, the target will have already passed

by. With correct leading, the shot pellets and moving target will reach the same spot at the same time. With practice, leading will soon become automatic.

There are three commonly used methods of leading: swing through, sustained lead and snap shooting.

### Swing Through

For the beginning shooter, the “swing through” method is easiest to learn. Swing the muzzle of the shotgun so it points at the flying bird. Follow its flight path, increasing the speed of swing until the gun muzzle has passed through the bird to a spot just ahead. Then fire. Continue to swing the gun during the shot and after.



It is extremely important to continue to swing the shotgun after the shot. This is called “follow-through.” Follow-through in shotgun shooting helps prevent shooting behind the target.

### Sustained Lead

A shooter using the “sustained lead” technique estimates the speed, range and angle the target is traveling. First, decide on the amount of lead necessary. Swing the muzzle that distance ahead of the target. Maintain this distance, or lead, in front of the target up to and after the shot is fired.



## Snap Shot



Anticipating the amount of time it will take a flying bird to get to a place in the sky, a hunter using the snap shot method picks a spot in front of the target and fires at that spot. The shot and the target will meet at the same place.

### Practice

Accurate shotgun shooting combines the activities of



loading and unloading, selecting the correct ammunition and developing marksmanship skills. It is not a difficult activity, but it takes time.

Seek the help of a shotgun instructor to help learn how to shoot. Join a sportsman's club. Try shooting trap, skeet and sporting clays to improve shotgun shooting skills.

### How to Pattern a Shotgun

When a shotgun is fired,

several hundred shot pellets leave the muzzle and immediately begin to spread and scatter into a pattern of increasing diameter.

The shotshell load, pellet size, wad type, and the shotgun choke determine how the shot travels

to the target.

For accurate shotgun shooting, a shotgun must be patterned before use.

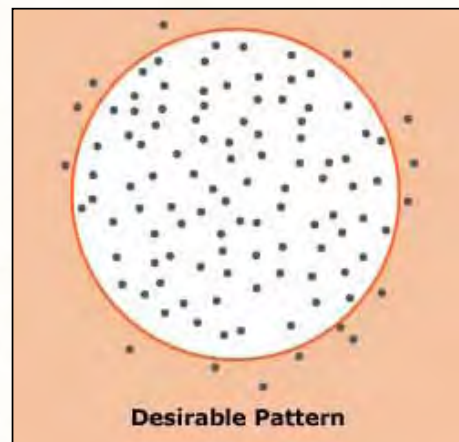
The usual distance for measuring shotgun patterns is 40 yards for all gauges, except the .410 bore.

### Basic Shotgun Patterning

Obtain several sheets of blank white paper, that is 48 inches on a side. Staple a paper target on a 48 inch wooden frame.

Place the target 40 yards away from where the shotgun muzzle will be.

Place a dot that will be visible at 40 yards somewhere in the

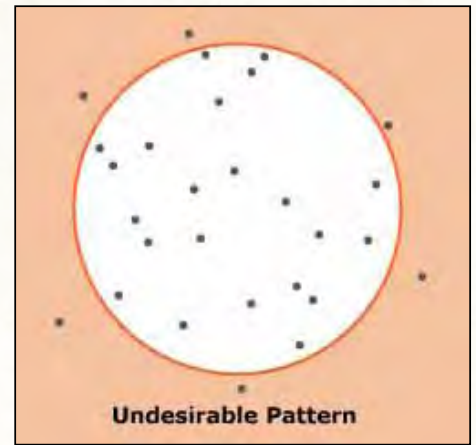


center of the target.

Select the desired shotshell and load the shotgun.

Quickly shoulder the shotgun and take a shot at the dot.

Examine the results. This first

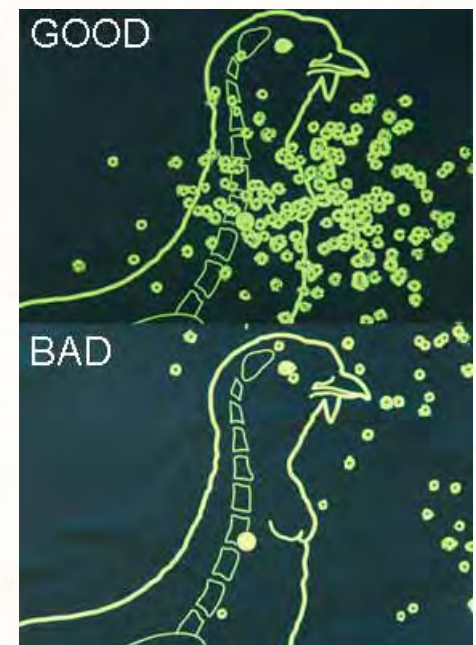


shot gives a good idea of the shotgun pattern's spread and where the shooter's quick shot is hitting in reference to the dot - left, right, high or low. Repeat with new targets as needed for better results.

Next, staple a new target on the frame, again with a dot that visible at 40 yards in the center of the target.

Shoulder the gun, aim at the dot and fire.

Examine the results of this target to determine how centered the dot is in comparison to the



whole shot pattern. Draw a circle with a 15 inch radius around the dot and estimate how many pellet holes are within and outside of that 30-inch circle.

The percentage of shot pellets



that strike within the 30-inch circle will vary by the choke size. This list represents the typical results:

4. Full Choke: 70% or higher
5. Improved Modified: 65%
6. Modified: 55-60%
7. Improved Cylinder: 45%
8. Cylinder: 35-40%

Use different chokes to determine how many more or fewer shot pellets hit within the 30-inch circle and where they are clustered and absent.

Compare the aimed shot with results from the quick shot taken earlier. The purpose of this basic shotgun patterning exercise is to obtain results with the quick shot that are centered but without aiming.

Repeat this exercise with different shotshells and chokes to

### Shot Size Table

SHOT SIZES	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Shot Number	12	9	8	7½	7	6	5	4	3	2	1	B	BB	BBB	T	
Diameter (in.)	.05	.08	.09	.095	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	
Number of Lead Pellets per Ounce	2,385	585	410	350	300	225	170	135	n/a	90	n/a	n/a	50	n/a	n/a	
Number of Steel Pellets per Ounce	n/a	n/a	577	490	420	317	243	192	154	125	103	86	72	61	53	
BUCKSHOT SIZES	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Shot Number	4	3	1	0	00	000										
Diameter (in.)	.24	.25	.30	.32	.33	.36										

*Shot size can be adjusted for the game being hunted. As pellet diameter decreases, more shot can be placed in a standard shotshell load. The smaller the shot number, the larger the shot size.*

to pattern test a shotgun. They involve more time, but are more accurate. The objective of formal shotgun patterning is to determine exactly how many individual pellets strike within a 30-inch circle when the target is set at 40 yards. Again, with an interest in getting results for different shotshells and chokes.

### Objective

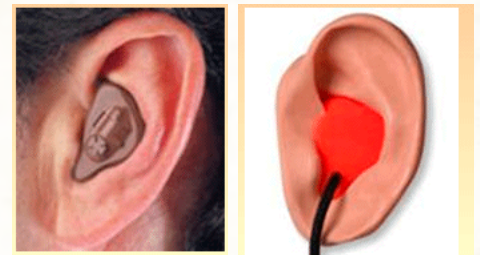
In this lesson you will:

- Discover the importance of wearing safety equipment and clothing when shooting.

### Safety Equipment and Clothing

Like many activities, shooting requires safety equipment. Many shooting ranges require all shooters to wear hearing and eye protection. Whether or not to wear safety equipment while hunting is optional, but doing so is highly recommended.

Shooting safety equipment is generally inexpensive and is commonly available. Safety



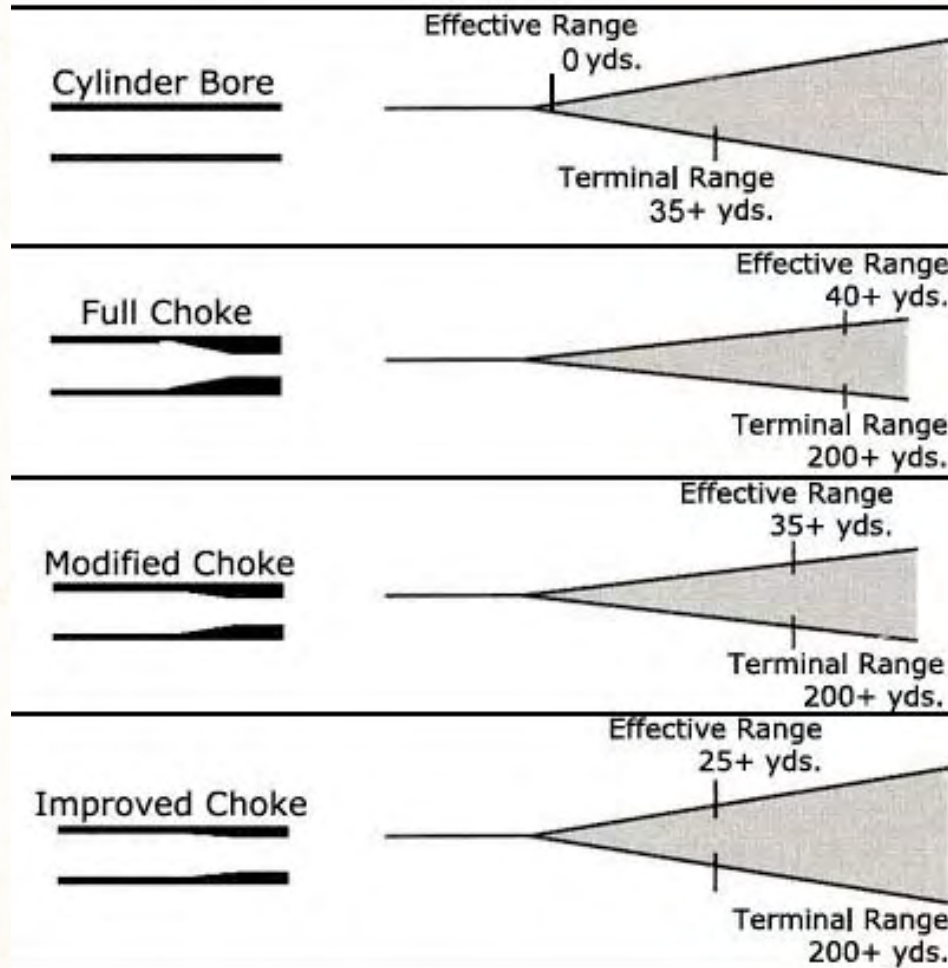
Electronic Shooter Plug Solid Ear Plug (with cord)

equipment can be easily replaced if lost. Shooting without hearing and eye protection can lead to loss of hearing and sight.

A .22 cartridge, especially if fired indoors, produces enough sound to permanently damage hearing.

### Hearing Protection

Devices that protect a shooter's hearing include: simple foam ear plugs for one-time use,



determine what works best. There are also formal ways

### Lesson 10: Safety Equipment and Clothing





custom molded ear plugs for one individual's long-term use, basic

headphones and digital electronic ear muffs. Each of these devices provides adequate hearing protection; the more expensive devices shut out the damaging sound of gunfire, but enable the shooter to hear nearby conversations and range commands.

Also, the choice of device for hearing protection depends on the kind of firearm in use. Shotgun shooters need a low profile device that does not interfere with mounting the shotgun.

### Eye Protection



Eye protection with side shields is necessary to prevent small particles from the fired cartridge or flying brass from a nearby shooter from damaging the eye. Affordable protective glasses are available for all kinds of applications, with or without

prescription glasses, and may have adjustable bows.

### Clothing



Proper clothing for shooting practice includes a cap with a brim, T-shirt, polo shirt or an Oxford-type shirt with a closed collar.

This kind of clothing especially helps prevent hot brass from dropping between the glasses and face and between chest and shirt, causing serious personal injury and can cause the shooter to lose muzzle control.

When shooting a high-powered rifle, the shooter should use a jacket with a padded shoulder to help prevent bruising.

If shooting occurs outdoors, then the shooter should dress for the weather. Extreme conditions, causing for example wet and cold

hands and feet and shivering, are not only uncomfortable conditions, but will interfere with safe and proper shooting.

*Separate pads can be strapped on to protect shoulders from bruising due to recoil*

