

# *AIR GUN SHOOTING SPORTS SAFETY GUIDE*

*Developed by the Education & Training  
and  
Competitive Shooting Divisions*

*A Publication of the National Rifle Association of America*



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## INTRODUCTION

Welcome to the AIR RIFLE SHOOTING SPORTS SAFETY GUIDE. This guide has been developed by the National Rifle Association to support shooting sports programs around the country, and is a safety orientation for those adult leaders and parents who are responsible for marksmanship instruction and or competition.

Anyone who is interested in conducting air rifle live-firing practices should read this guide. This guide deals with safe air rifle handling, range safety criteria, supervising a safe range, including range personnel and range clean-up, compressed air and CO<sub>2</sub> handling safety, and individual hygiene.

The most important goal of this guide is to develop in you the specific attitude, knowledge, and skills needed to safely conduct shooting training. The safety rules are the core of safe shooting, but you also need adult supervision at all times along with continuous enforcement of those rules.

Just like shooting, these skills require regular practice. Your specific situation may be different from that shown in the pictures used in this guide. When this difference occurs, you must use the attitude, knowledge, and skills you learn in this guide to safely adapt your procedures, policies, and practices. A great place to start is the owner's manual for the air guns found in your program.

This guide teaches only the most basic skills needed to handle the common types of air rifles commonly found in shooting programs, and also teaches how to run a safe range.

The NRA encourages you to obtain additional training, such as becoming an NRA Certified Range Safety Officer, Instructor, and/or a Shooting Coach. This additional training will benefit you by reinforcing what you learn here and increasing your knowledge of the shooting sports.

There are questions printed in *italic type* scattered throughout the following discussions. These questions are designed to stimulate your thought process concerning safety, but they can also be used with your shooters to guide their understanding of air gun safety.

One last thing. You will notice that we will refer to the guns shown in this guide as “guns,” “air guns,” “rifles,” etc., but never as “weapons”. The term has negative

connotations, especially when used with the news media. Words mean things. We use rifles as a piece of sporting equipment to shoot at paper targets. Enough said.

## BASIC AIR GUN SAFETY

### **Safety**

Safety is the number one priority on and off the range, so everyone must do their part to prevent accidents. In this sport, the majority of incidents are caused by the ignorance of proper rifle operating procedures or by mishandling. Marksmanship can be an enjoyable, challenging, and exciting sport when done safely.

An air gun is not a toy. Air guns must be treated with the same respect and safety considerations given all guns.

*What do you think is the primary concern when handling any kind of gun?*

Safety is always the primary concern when handling guns, whether they are located on the range, at home, or in the field.

*What do you think are the major causes of gun accidents?*

Ignorance and carelessness are the primary causes. Ignorance is a lack of knowledge of gun safety or operation. Carelessness is the failure to apply one's knowledge when handling guns. A very real concern, especially among those who are around guns frequently, is complacency. Complacency leads to carelessness.

### **The Safe Gun Handling Rules**

The NRA has developed three basic rules that should always be applied simultaneously when handling or using guns. The fundamental NRA rules for safe gun handling are:

#### **1. ALWAYS keep the gun pointed in a safe direction.**

This rule is the primary rule of gun safety.

*What do you think is meant by a "safe direction"?*

A safe direction means that the gun is pointed so that even if it were to go off, it would not cause injury or damage. The key to this rule is to control where the muzzle or front

end of the barrel is pointed at all times. Common sense dictates the safest direction, depending on different circumstances.

*If you had a gun in your hands now, what would be the safe direction(s)?*

**2. ALWAYS keep your finger off the trigger until ready to shoot.**

*If the finger is kept off the trigger, where should it be?*

When holding a gun, rest your finger along the side of the gun and outside the trigger guard. Until you are actually ready to fire, do not touch the trigger.

**3. ALWAYS keep the gun unloaded until ready to use.**

Whenever you pick up a gun, always point it in a safe direction, keeping your finger off the trigger and then immediately engage the mechanical safety if possible, and, if the gun has a magazine, remove it before opening the action and looking into the chamber(s) which should be clear of any projectiles. If you do not know how to open the action or inspect the chamber(s), leave the gun alone and get help from someone who does.

*How do you know whether or not a gun is unloaded?*

You check whether a gun is unloaded by removing the magazine (if any), opening the action, and visually inspecting the chamber.

Set the example with your shooters. Each time you pick up a gun, model the correct behavior by practicing the three rules of safe gun handling: make sure the gun is pointed in a safe direction, the finger is off the trigger, and the gun is unloaded. You should then involve the shooters in the safety process by having one of them verify that the gun is unloaded.

When handing a gun to another person, the three rules of gun safety must be observed simultaneously, *i.e.*, gun pointed in a safe direction, finger off the trigger, safety engaged, magazine out (if possible), action open, and empty chamber visible. The gun should not be accepted from another person unless its magazine is out, its action open, and its chamber empty.

You and your shooters must be thoroughly familiar with the NRA Gun Safety Rules brochure. You can see an online version of the brochure at <http://www.nrahq.org/education/guide.asp> or you can order them at the link provided. The three rules for safe gun handling must always be followed. Injury will not occur if the gun is pointed in a safe direction, even if the gun is fired. The gun cannot discharge if the shooter keeps all fingers away from the trigger. The trigger finger should remain outside the trigger guard alongside the frame or receiver until ready to shoot. Keeping the gun unloaded until ready to use further enhances safety. The phrase “ready to use”

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requires a little explanation. When target shooting, the gun should be loaded *only* at the firing line and *only* when authorized to load.

When using or storing a gun, always follow these NRA rules as well:

**Know your target and what is beyond.** The range Standing Operating Procedures (SOPs) specify what targets may be used, at what distances targets may be placed, the types and calibers of guns that may be used, and the types of shooting activities permitted. Violations of the SOPs could cause a hazardous condition. Shooters must check their targets and what is beyond every time they shoot.

**Be sure the gun is safe to operate.** Shooters must ensure that their guns are safe to operate, which is often done during regular cleaning and maintenance. Shooters must also be aware of changes in sound, recoil, and operation that occur during firing. The operator's manual is the best source of information on a particular gun. The public library is another excellent source of information on guns.

**Know how to use the gun safely.** The shooter must know how his rifle operates – its major parts, how to load and unload it, and how to clean it. Similarly, the Range Officer (RO) should know how a rifle operates prior to giving assistance. In the event an RO encounters a gun with which he is unfamiliar, he should seek assistance from another knowledgeable RO or read the owners manual. An excellent way to expand knowledge, when not supervising a range, is to ask users of unique guns to demonstrate how their firearms operate.

**Use only the correct projectile for your gun.** Shooters should only use projectiles that match their gun. To ensure the correct projectiles are used, check the owner's manual or the projectile type and size stamped on the gun. The range SOPs should specify what types of calibers can and cannot be used. Violations of the SOPs could result in a hazardous condition.

**Wear eye and ear protection as appropriate.** Guns make sound that can cause hearing damage. Guns can also emit debris and gas that could cause eye injuries. For these reasons, shooters and spectators should wear shooting glasses and hearing protectors. The range SOPs should specify that all range users, including spectators, should wear eye and ear protection. Sound travels beyond the immediate firing point. All range users, including spectators, should also wear eye protection on air gun ranges to prevent injuries.

*Hearing protectors should always be worn. Although air rifles have a considerably reduced amount of noise pressure and pulse than do firearms, hearing protectors should be worn at all times when on the range or on the firing line to ensure that no hearing damage occurs. Hearing protection also enhances concentration on the line by reducing distracting noises during shooting.*

*The wearing of safety glasses or shatterproof eyeglasses when firing is highly recommended, and may be required by local range policy. All range staff should also wear safety glasses.*

**Never use alcohol or drugs before or while shooting.** Avoid alcohol, as well as any other substance likely to impair normal mental or physical bodily functions, before or while handling or shooting guns. Examples include prescription and non-prescription drugs, such as cold medicines, that may cause drowsiness, nervousness, balance problems, or other side effects. Anyone taking any medication or substances that may impair normal mental or physical bodily functions should be prohibited from the range.

**Always store guns so they are not accessible to unauthorized persons.** Safe and secure storage requires that untrained individuals (especially children) be denied access to guns. A variety of safes, cases, and other security devices are available to securely store guns. The gun owner is responsible for the safekeeping of his guns.

**Certain types of guns and many shooting activities require additional safety precautions.** For example, some air guns are significantly different from many modern firearms and other types of air guns and require special procedures for using, unloading, etc. **SAFETY PRECAUTIONS AND PROCEDURES**

### **Mechanical Safety**

The safety is a mechanism that, once engaged, is designed to prevent a rifle from firing by locking its trigger into place. It is usually located near the trigger or on the trigger guard. The safety may be located in a different place on various models of guns. It is the user's responsibility to know how the safety operates. Some air guns may not have a safety. See the specific owner's manual for the gun.

For example, to engage the safety of a Daisy 888, it must be pushed towards the right so no red can be seen (ON Position). To fire, the safety must be pushed towards the left (the OFF position). A red marking will be visible on it, indicating the gun is ready to fire.



Safety engaged  
Daisy 888



Safety disengaged  
Daisy 888  
Red line is visible.

**Keep the safety engaged until ready to shoot.**

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**Remember:** A safety is a mechanical device that can wear and fail. The safety must never be substituted for the practice of safe gun handling rules at all times.

- ON = **engaged** = no red (safe)
- OFF = **disengaged** = red (ready)

### Safety Enhancers

The use of any of the following systems to enhance safety is up to the individual program. These safety enhancers are only a supplement to good training.

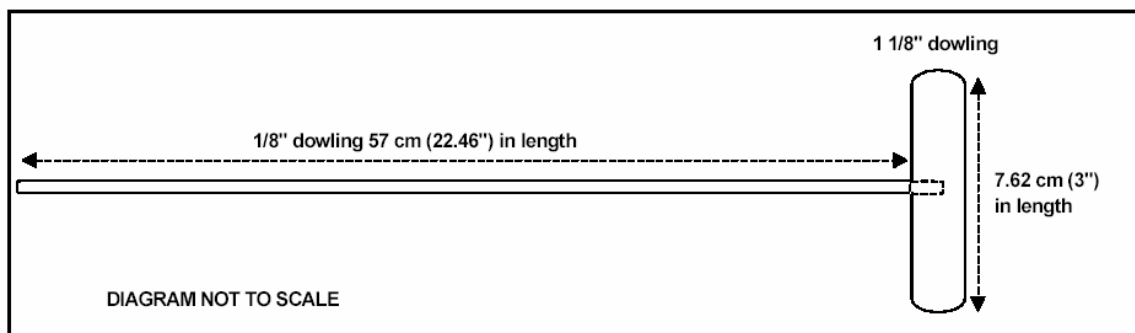
The use of safety rods, Open Bolt Indicators (OBIs), and Empty Chamber Indicators (ECIs) has become more of an issue for range users, both on the shooters' side and the range control side. Open Bolt Indicators are commonly used in some forms of competitive shooting. A real concern with using an OBI, however, is that it does not necessarily indicate that the chamber or barrel is empty. A pellet could still be in the chamber even with an OBI in place. A better solution is an Empty Chamber Indicator. An ECI is actually inserted into the barrel as proof that there is no pellet in the barrel. As a secondary check, they cannot be inserted without having the bolt open. These ECIs are easy to make and can be adapted to a wide range of air guns.

### Safety Rod

To ensure that air rifles are not removed from the firing point or stored with a pellet in the chamber or barrel, a safety rod can be inserted in the barrel from the muzzle end. It consists of two sections of wooden doweling joined together in a "T" shape. (It can also be made of other materials.) Dimensions are detailed in the diagram below. The tip of the safety rod is to be colored red using an ink marker. Use of wood doweling will not damage the rifling in the barrel.

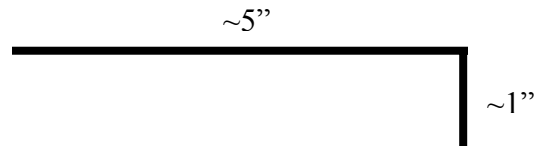
DIAGRAM NOT TO SCALE

- 1/8" doweling 57 cm (~22.5") in length.
- Broom handle or 1 1/8" doweling 7.5 cm (~3") in length.



## Empty Chamber Indicator (ECI) for Air Guns

- Nylon Weed Eater®/Trimmer Line, .060" - .070" diameter, bright color.
  - Propane torch or other heat source.
  - Wire cutters.
1. For each ECI, cut a 6" (approximate) piece of trimmer line using the wire cutters.
  2. Make sure that each end of the line is a cut cleanly, with no burrs.
  3. Light the propane torch and adjust to a very low flame.
  4. Wave one end of the line above the flame until the nylon softens.
  5. Form the heated line in the shape of an "L".
  6. Allow line to cool.
  7. Insert long end into the empty breech/chamber to indicate no pellet is in the chamber.



An option to this short ECI would be a full barrel-length version that absolutely proves that there is no pellet in the barrel. Make the line about 6 inches longer than the total barrel length. Warm one end with the propane torch to soften the line and form into an "L" shape as above. Insert the long end fully into the empty breech/chamber to indicate no pellet is in the chamber. The remaining extra length should protrude from the muzzle indicating that there is no pellet anywhere in the barrel.

Commercial ECIs are also available. These versions work well in rifles that have exposed breeches. This type of ECI will not work in rifles like the Daisy 853 Series or 888 due to the shroud covering the breech.



### Removing a Rifle From the Case

Another good safety idea is to clearly mark the outside of a gun case with an arrow indicating which direction the rifle inside is pointing. This marking will help ensure that when the case is opened, the rifle will already be pointing in a safe direction. On some gun cases, it is obvious which end is the muzzle, but in others it is unclear which end is the muzzle end. The following steps must be followed in removing a rifle from its case:

Place the rifle case on a flat surface and ensure the rifle inside is pointing in a safe direction, then

- Open the case.
- Keeping your finger off the trigger, immediately engage the mechanical safety, if possible.
- If the gun has a magazine, remove it.
- Cock the action (leave the bolt to the rear), and look and feel (if possible) into the chamber.
- Confirm that the safety is engaged (in the ON position).
- Confirm that the pumping lever is partially open (if Daisy 853 series rifle).
- Slide the safety rod (if used) in the barrel towards the bolt until it can be seen in the feed track.
- Remove the rifle from the case.
- Remove the safety rod (if used) if you are on the firing line.

### Removing a Pistol From a Case

As mentioned in the rifle section above, a great safety idea is to clearly mark the outside of a gun case with an arrow indicating which direction the pistol inside is pointing. This marking will help ensure that when the case is opened, the pistol will already be pointing in a safe direction. On some gun cases, it is obvious which end is the muzzle, but in others, it is unclear which end is the muzzle end. The following steps must be followed in removing a pistol from its case:

Most pistol ranges have table or benches for the guns to rest on, therefore place the gun case on the table or bench with pistol pointed in a safe direction.

- Open case
- Keeping your finger OFF the trigger, immediately engage the mechanical safety, if possible.
- Open the action, and look and feel (if possible) into chamber.
- Confirm that safety is engaged, if possible
- Place ECI or Safety Rod into barrel
- Remove pistol from case and place on table or bench with muzzle still pointed in a safe direction.
- Remove case from table or bench.

## Removing Multiple Guns From One Case

- Open the case.
- Without touching the other guns in the case, the first gun is immediately pointed in a safe direction, finger off the trigger, immediately engaging the mechanical safety, if possible.
- If the gun has a magazine, remove it.
- Cock the action (leave the bolt to the rear), and look into the chamber.
- Confirm that the safety is engaged (in the ON position).
- Confirm that the pumping lever is partially open (if Daisy 853 series rifle).
- Slide the safety rod (if used) in the barrel towards the bolt until it can be seen in the feed track.
- Remove the rifle from the case.
- Remove the safety rod (if used) if you are on the firing line.
- Immediately follow the same procedure for the second and/or subsequent rifles.

## Individual Safety Precautions

Upon receiving a gun or when the gun's safety condition is uncertain, individual safety precautions must be taken to confirm that the gun is safe. An individual must ensure that:

- The gun is pointed in a safe direction, finger off the trigger.
- The safety is engaged (in the ON position).
- The bolt is open fully to the rear.
- The pump lever is partially open.
- A safety rod (if used) is inserted in the barrel.

## NOTES

Instructors/coaches must ensure that all rifles and pistols to be used for instruction or firing on the range are in a safe condition before allowing shooters to handle the guns, as well as before allowing guns to be removed from the firing line.

*Safe gun handling rules are all common sense and are easy to apply when people understand why they are necessary to help prevent accidents.*

*A gun should always point in a safe direction. In the firing position on a range, it should always point downrange toward the targets.*

*A gun should never be pointed at anyone.*

*A gun should be held in the vertical position with the muzzle pointing up and above head level when transporting it to and from the firing point and/or range.*

*Fingers should be kept off the trigger unless the shooter is ready to fire.*