

CORRECTING ERRORS—SOLVING CHALLENGES FOR THE NEW SHOOTER

By Gary Anderson, DCME

Shooting coaches and instructors are responsible for quickly recognizing and correcting beginners' errors. If the coach or instructor does this well, new shooters will almost certainly have good experiences and want to continue shooting. This article discusses how coaches should evaluate the first shots that new shooters fire and how to correct any errors or serious problems that occur during those initial live firing experiences.

This discussion is applicable to a wide variety of new shooter experiences. Most coaches now have their prospective marksmen do their first live firing from a supported position, especially when working with juniors. Highly skilled instructors may start older juniors in the standing position. For outdoor highpower rifle shooting over popular As-Issued Military Rifle courses, the first firing position is most often prone. Whether the firing position is a supported position, standing or prone one thing is certain, however. Some shooters are going to present challenges that need to be identified and solved.

TYPES OF ERRORS AND CHALLENGES. There are three types of beginners' errors or challenges that coaches must be alert to detect and fix. They are 1) gun handling or safety errors, 2) catastrophic errors where shots strike completely off the target and 3) wild shots or large shot groups where shots are fired inaccurately. Proper error correction also depends upon having the right number of qualified coaches in the right position to provide timely assistance.

COACH-SHOOTER RATIO. When beginners first advance to the firing line, it is especially important that the coach-shooter ratio be small enough to ensure that they receive the supervision and instruction they need. In the Small Arms Firing Schools each summer at Camp Perry, a one coach to two shooters ratio is maintained. Some programs try to have a one-on-one ratio. In no case should the ratio be larger than



There should be one coach for every two to five new shooters. When new shooters begin firing, coaches should position themselves immediately to the rear of their shooters so that they can observe all aspects of their performance.



Coaches should approach new shooters on the right and get close enough to the shooter that instructions can be given clearly and in a low voice.

one-to-four or one-to-five. The second consideration here is that coaches of new shooters must know what they are doing. They are not there just to monitor gun safety. They need to be individuals who understand shooting and who are trained to apply the procedures and instructions discussed here.

COACH POSITION. When working with shooters who are firing their first shots, the coach should take a position immediately to the rear of the shooters. The coach should remain standing so that he can act quickly if intervention is required. Under most circumstances, the shooter should be approached on the right (right-handed shooter). Get close enough to the shooter so that instructions can be given in a clear, calm voice. A second reason for approaching on the right is so that the coach can quickly take control of the rifle if the shooter should unexpectedly attempt to swing the rifle muzzle around. An important safety admonition for coaches to remember is to never interrupt a shooter while they are attempting to fire a shot unless there is an immediate safety hazard. A shooter with a loaded rifle and a finger on the trigger could become a safety hazard if distracted.

KEEP ERROR CORRECTION POSITIVE. A starting point concerns how coaches should communicate with shooters. A fundamental rule is that responses to new shooter errors should never be "don't do that (the error) again." Appropriate responses should always be a version of "do this (the correct action) on the next shot." Telling a new shooter not to do something does not help them because while it suggests they did something bad, it does not tell them what they should do. Remember that new shooters are people who have very little knowledge of correct shooting fundamentals. A vital part of successfully coaching them through their mistakes is to display an underlying conviction that everyone who tries shooting is not only capable

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of hitting the target, but of shooting good groups and scores. Under no circumstances should a coach approach new shooters with a belief that some people are just not meant to be marksmen. Another coach virtue to be applied in abundance when working with beginners' challenges is patience. Have a willingness to continue working with their problems until a solution is found.

SAFETY. The first possible errors that must receive the coach's attention are gun-handling errors. New shooters may have been taught about muzzle control and keeping their index fingers off of the trigger until they start to aim, but until they actually have a rifle in their hands and practice those lessons, they may not have sufficient muzzle and index finger awareness to actually do this. Continually watch the rifle muzzles and patiently remind new shooters about keeping muzzles pointed up or downrange. Watch where their trigger fingers are placed when the rifles are lifted into firing positions. Corrections are warranted when the finger does not remain outside the trigger guard until aiming begins. A coach's first responsibility is to ensure that safe gun handling skills are mastered.

CATASTROPHIC MISSES. A catastrophic miss is a shot that completely misses the target. Such shots almost always occur during the first few shots new shooters fire, so it is critically important for the coach to confirm that those shots are "on target." New shooters will sometimes not even know they are missing the target. On-line instructors should have spotting scores (not needed with electronic targets) so they can immediately determine if each shooter is hitting the target. As soon as you determine that a shooter has missed the target, go to that shooter and begin this error correction sequence.

Step 1a, Check for Cross Dominance. Have the shooter place the rifle in the firing position and aim at the target. Stand behind or above the shooter so that you can see where the muzzle points. The most common cause of catastrophic misses is cross-dominance. If a shooter whose dominant eye is opposite the shoulder used to support the rifle, the dominant eye may take over aiming responsibility. If it does, this eye will see the front sight and align it on the target. If you stand behind or over a shooter who is attempting to use the left non-aiming, but dominant eye (right-handed shooter) to align the front sight with the target, you will quickly see that the barrel points way to the left of the target (or to the right for a left-handed shooter). If you see this, stop the shooter from firing any more shots until you correct the problem.

Step 1b, Cross Dominance Correction. If you detect a cross dominance problem, correcting this is simple for air rifle, smallbore rifle or BB Gun shooting. Attach a blinder to the rear sight. The blinder must be shaped so that it blocks the non-aiming eye's view of the front sight.¹ Cross-dominance problems can also be fixed by placing a strip of translucent tape on the lens

of the shooting glasses or eyeglasses so that the tape blocks the non-aiming eye's view of the front sight.

Step 1c, Switching Shoulders. Occasionally, new shooters will attempt to contort their head and neck so that they can use a dominant eye that is opposite the shoulder supporting the rifle to try to look through the rear sight. This is an obvious clue that the shooter has a cross-dominance problem. You may be able to fix this problem by attaching a blinder. A better solution to this problem is often advising the new shooter that they would be better off shooting from the same shoulder as their dominant eye.

Step 2a, Sight Alignment Failure. A second cause of catastrophic misses is failure to look through the rear sight and attain proper sight alignment. This error manifests itself when the first shots fired strike high off the target. You can readily detect this by standing to the side of the shooter so you can see where the aiming eye is looking. If the shooter is looking over the rear aperture, it will be obvious.

Step 2b, Sight Alignment Correction. If a new shooter is looking over the rear sight to see the front sight, explain how the eye must look through the rear sight aperture. On occasion, an extra large temporary blinder on the rear sight may be needed to force the new shooter to look through the rear sight aperture. Have the new shooter try looking through the sights to achieve sight alignment while you observe from the left side of the shooter (right-handed shooter).

Step 3a, Firing in Panic or Fear. The third common cause of wild shots that hit completely off of the target occurs when new shooters slap at the trigger, often while closing their eyes. Sometimes, this comes from attempting to fire in an unsteady position. Sometimes, this occurs when new shooters have so little concentration on the sight picture that they simply close their eyes and grab the trigger. Error detection in this case is relatively simple. Stand to the side of the shooter and observe



Placing a simple blinder on the rear sight will solve almost all cross-dominance problems.

Continued on the next page

¹ ISSF, USA Shooting and National Three-Position Air Rifle Council rules all specify that the maximum permissible size of a blinder that is attached to the rear sight is 30mm X 100mm. Binders can easily be made out of translucent plastic such as a milk container.

CORRECTING ERRORS—SOLVING CHALLENGES FOR THE NEW SHOOTER

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the eye and trigger finger while the shot is fired. If the eye closes before the shot or the trigger finger convulses, the cause of missed shots is obvious.

Step 3b, Shot Technique Correction. Shots fired out of panic or fear are more difficult to correct. First, make sure the shooter understands proper shot technique. Explain that they must continue to look through the sights and aim until after the shot is fired (follow-through). Emphasize how the front sight movements must be centered over the target and the trigger pressed while those movements are centered. Make sure the new shooter understands what a smooth trigger release really is. At this point it may be necessary to invite the new shooter to watch your trigger finger while you describe and demonstrate a smooth trigger release. After that, have the shooter dry fire several shots while you observe the eye and trigger action. Then do closely supervised live firing.

BIG SHOT GROUPS. When new shooters successfully advance beyond their first firing experiences by placing all their shots on the target, their next test concerns how large their shot groups are. The causes of large shot groups and wild shots are legion, but there are several things to look for. The “*Live Fire Progression for New Shooters*” chart gives you a rough guide for evaluating new shooters’ first shot groups. When they have shooters shot groups are unacceptably large, go through a series of checks to determine if they are applying good position and shot technique fundamentals.

Step 1, Support Arm Elbow Placement. Placing the elbow of the support arm in the correct location of the support elbow contributes significantly to the stability of any firing position. If the elbow is in the right place, the support arm or support arm and sling will be configured in such a way that muscle effort is not needed to hold up the rifle. Conversely, if the elbow is in the wrong place, shaky muscles are likely being used to hold up the



Closely observing new shooters while they shoot can usually detect fundamental errors in shot technique.

rifle. Start by checking the shooter’s position to be sure it fulfills these requirements for support arm elbow placement:

Supported Position. The elbow should be placed so that the left hand grasps the fore-end lightly with the elbow resting on the table or mat while 100 percent of the rifle weight rests on the support.

Standing. The elbow must rest on the side or hip directly under the rifle. In standing, it is also important to make sure the hip is directly under the rifle so that there is a solid column of support from the rifle, down through the left elbow and left hip to the left foot. Turning the body 90 to 100 degrees away from the target orients this solid column of support.

Prone. The elbow must lie directly underneath an imaginary line drawn from the left hand through the left foot. Another way to check this is to look at the support triangle formed by the upper and lower arm and sling. If a plane cutting through this support triangle is vertical, elbow placement is correct.

Kneeling. The best way to check elbow location in kneeling is to look at the support triangle formed by the left arm and sling. If it is vertical, it is right. Some additional position checks are necessary in kneeling to ensure that proper support is given to the rifle. Is the body weight resting back on the heel; if not, try to get the shooter to shift the weight back. Is the left lower leg pulled back? If it is, the left foot needs to be moved forward until the lower leg is at least vertical.



All coaches who work with new shooters need a good understanding of fundamental position checkpoints such as elbow placement, head position and proper sling adjustment.

Live Fire Progression for New Shooters - Use this guide to evaluate new shooter progress when firing at 50 ft./10m from a supported position (*adjust the shot group standards if initial firing is done from the standing or prone positions*).

Step 1: All shots hit the target

Step 2: All shots (5-shot groups) within 30mm circle

Step 3: All shots (5-shot groups) centered within 30mm circle.

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Step 2, Head and Aiming Eye Placement. Another key to good shooting comes from being able to see the sight picture clearly. This is possible only when the rifle is placed high enough in the shoulder to keep the head reasonably erect and to allow the eye to comfortably look straightforward through the rear sight. A variation of this problem sometimes occurs when shooters who wear eyeglasses tip their heads down and end up looking over their glasses while aiming. A blurred sight picture may result. The solution is to build a position where the rifle is well up in the shoulder. For shooters who need eyeglasses to see a clear sight picture, make sure they are actually looking through their glasses while aiming.

Step 3, Relaxing and Using the Rifle Support. Every good position, whether supported, standing, prone, kneeling or sitting has a means of supporting the rifle so that the muscles of the support arm (left arm for right-handed shooter) are not used to hold the rifle steady on the target. In standing, this means getting the elbow under the rifle with the arm or elbow resting on the side. For prone and kneeling, this means using the sling properly. To get sling adjustment right, you may need to go back through the steps for building the position starting with the sling adjusted loosely on the arm. After building the position, the last step is tightening the sling so it takes over the work of supporting the rifle.

Step 4, Center Sight Picture Movements. Many beginners have difficulty comprehending how to deal with the large sight picture movements that are common for all beginners, especially when they try the standing position. With the front sight ring or post moving all over the entire target, they try to grab the trigger as the sight flies by the bull. The result is almost always a bad shot. Help the shooter understand that no matter how large the front sight movements are, they just need to center those

movements over the target and squeeze the trigger. A good way to get this lesson across is to have the new shooter fire at a blank target with no aiming bull.

Step 5, Smooth Trigger Release. Coaches with shooters who are doing poorly need to closely observe them while they fire. This will often show that the shooter is slapping the trigger like they are firing a shotgun or simply attempting to snap it as quickly as they can. Again, explain and demonstrate smooth trigger release. Dry and live firing on a blank target is a good way to focus attention on attaining a slower, smooth trigger release.

A FINAL CHALLENGE--I Can't Do This—I Don't Want to Be Here! Every large group of new junior shooters seems to have one person with an attitude problem. This can be a challenge to turn around, but the message from the coach should always be “you can do this and I'm here to do the best I can to help you learn to shoot.” As long as an attitude problem does not become a safety issue or be disruptive to other shooters, demonstrating patience and confidence that everyone who tries can become a shooter will often turn this challenge around. Non-judgmental acceptance can be a powerful tool in helping people change.

The first shots that new shooters fire in any position are not an indication of talent or ability to shoot. They are simply an indication of whether the new shooter is applying the fundamentals of marksmanship that you are teaching them. If they don't hit the target or they shoot bad shots, it is your responsibility as a coach to determine which fundamental is not being followed so that you can show them how to do it right. If you fulfill your responsibility, your new shooters will learn to shoot well.



A big part of helping new shooters learn to apply the marksmanship fundamentals you are teaching them is to build a relationship of trust and respect that shows new shooters you believe they can learn to be good shooters.



A coach who knows how to quickly detect and correct new shooter errors can ensure that the first experiences in target shooting are fun and rewarding.