THE CrossFit JOURNAL

Handgun Basics: Drill for Skill

Practical shooting grand master Dave Re describes the drills seen in the video Handgun Basics Part 2.

By Dave Re **January 2011**

Dave Re Photography

Part 2 of *Handgun Basics* is a whirlwind tour through a number of techniques and drills I employ with students in teaching them basic handgun skills. Editing five or so hours of teaching down to the 11 minutes of footage seen in the video inevitably leaves some questions. The goal of this companion piece is to fill in some of those holes and help make clear the purpose and intent of several of the drills shown in the video.

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The goal behind the *Handgun Basics* videos was to demonstrate starting skills for handling and shooting a handgun safely and with reasonable proficiency. To that end, we didn't cover presentation of the gun from a holster, or other skills that are required for self-defense, tactical or competition shooting.

Scott Wallace Photography

Testing a shooter's stance helps him find the optimal position for firing.

0:56—Stance Test

What you see going on here is a method to confirm and check a shooter's firing stance without having to fire live ammo. This allows the shooter to feel what's going on in the stance without the distraction of having to drive the gun at the same time, and it allows the instructor to cue the shooter and be understood.

Have the shooter set up in his or her stance and simply push straight back on the shooter's hands. Start light and increase pressure gradually, backing off occasionally to be sure the shooter is not leaning into the pressure you're putting on him or her.

Like so many other things in athletics, each shooter's optimal stance (and grip, for that matter) will vary slightly from another's due to body type, size, relative strength, etc. In my experience, this process allows the shooter to find the stance that's going to work best for him or her and will be more effective than having the instructor try to put each student into the same position visually. Allowing the shooter to feel the position under some tension and feel the difference between various tweaks to the stance as they happen helps him or her intuitively understand why those tweaks are being made.

Notice the improvement Travis finds in his stance following a few changes and tweaks when we retest at 2:11 in the video. It's immediately apparent that the new position is better for managing the rearward push of recoil from the gun.

2:00—Tight Core?

First, when the core is tight, the shoulders are effectively coupled directly to the hips, and any force exerted against the shoulders will also tend to be exerted on the hips. Some recoil energy inevitably makes it through the elbows and up the arms to the shoulders. With tight abdominals, that energy is also transmitted to the hips, resulting in the shooter being pushed over backward. Relaxing the abs allows the shooter to further buffer the recoil energy and prevents that energy from being transmitted down the body.

Second, tension in the core tends to lead to tension elsewhere in the body. Tension is a killer for trigger control, ease and fluidity of movement, and—possibly most importantly—mental focus. It's very difficult to be tense when your core is relaxed. Try it and see.

That said, "relaxed" doesn't mean the body is flopping over and loose. If you simply focus on being relaxed in your core, your body will know how much tension to maintain. Just let it do its job for you.

2:55—Weak Hand Grip Angle and Its Effect on Recoil Management

Used properly, the "weak" or "off" hand is possibly the largest tool the shooter has for recoil management on a handgun. What we're doing is putting the weak hand (the left hand for right-handed shooters) into a position where the wrist extensor muscles are in the strongest part of their range of motion. Those extensor muscles will then be the primary muscles acting against the tendency of the muzzle to rise, and they will provide most of the effort required to bring the gun back down onto the target following a shot. If we put them in a position to be strong, they'll do that job exceedingly well. In fact, it's almost magical how well they work.

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You might notice the similarities to the "outside 90" concept Tony Blauer talks about in The Bear Hug Drill Revisited. It's the exact same concept applied to a different joint.

There's such a thing as too much cant forward on the wrist. Once you hit bone lock (the furthest point forward you can cant the wrist), the effect on your grip strength is the same as if you lock your arm out at the elbow: it's diminished quite a bit, and that makes it very hard to hang onto the gun. The best place for almost everyone ends up being canted as far forward as possible, but maybe 5-10 percent short of hitting bone lock.

There's more discussion on grip pressure, the shooter's overall grip strength and their effects on recoil management below.

5:34—What's a "Group"?

Non-shooters watching the video may not be aware of the term "group." In simplest terms, a "group" is just a collection of shots on a target, usually fired at roughly the same time in the same conditions. The goal in shooting a group is to cluster the shots as closely together as possible, demonstrating control over the gun and fundamental marksmanship skills. As such, shooting a group can be a good test of where a shooter is at in those basics. In the video, I ask Travis and Crystal to shoot 10 shots at the target as close together as possible. We did this several times through the day, each time checking to see the difference each technique refinement made to their group sizes.

6:00— "Trigger Jerk" and "Milking the Grip"

In any modality of shooting, it's desirable to have a smooth press on the trigger in order to achieve the most consistent, accurate results. A sharp, jerky trigger pull results in pulling the gun off target. This generally will cause the shooter to miss the point of aim, sometimes (and often frequently) missing the entire target. While this effect shows up in all forms of shooting, its effect is very pronounced with a handgun.

Trigger jerk can occur for a number of reasons, but the most common one I see with a handgun happens due to the body's innate sense that an explosion is happening mere inches away from the shooter's face. It takes the form of a flinch. In fact, if you watch the face, a shooter will frequently squint or blink right as he or she breaks the shot. It's rare to find a shooter who *doesn't* experience some degree

Scott Wallace Photography

By having an instructor pull the trigger for you, you can discover if your aim is poor or if your trigger manipulation needs improvement.

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James Scott Photography

Arm position varies for each athlete, but most will find success with their arms extended to a point about 2 inches short of lockout.

of flinch when first starting out with a handgun. In most cases, the shooter sort of "snatches" the whole gun with the strong hand, squeezing the grip hard while yanking the trigger back (that grip squeezing action is sometimes referred to as "milking the grip"). This results in a shot that's low, and (usually) to the shooter's weak side—low and left for a right-handed shooter.

Luckily, it's usually pretty easy to work past a trigger jerk with a couple of simple drills. With some work on trigger control (see below), and some work on feeling the gun go off while watching how the sights move under recoil, most shooters very quickly learn to feel how the trigger works and how to manipulate it smoothly without disturbing the alignment of the gun on target.

6:20—Trigger Control

Proper manipulation of the trigger trumps pretty much any other skill in terms of accurate shooting. You can have the worst grip and stance on the planet and still shoot accurately if you can hold the gun on target and smoothly press the trigger without disturbing the gun. There are four basic parts to the movement of the trigger: pre-travel (or take-up), the break, over-travel and reset.

What you see at 6:20 is the first part of a set of drills designed to get the shooter familiar with how each of those movements feels. It culminates with shooting a group on the target as the shooter takes up the slack on the trigger several times ("playing with the pre-travel"), then breaks the shot and keeps the trigger pinned to the rear. After returning the gun to the desired point of aim, the shooter then slowly lets the trigger forward and feels the trigger reset before letting it out all the way. This familiarizes the shooter with a controlled press of the trigger and gives him or her a set of tools to use to remember that feel and get back to it if trigger jerk occurs again.

7:35—Arm Position

Here, we're essentially doing the same thing we did with the stance test at 0:56 and 2:11 in the video, but we're applying it to arm angle and amount of arm flexion. Each shooter has a sweet spot where both of those positions come together to provide maximal recoil control and allow the gun to move straight up and down. Both are desirable for retaining accuracy when we start getting into shooting the gun quickly.

In general, the drill is to fire through a whole magazine (perhaps two, if it's a lower capacity handgun of, say, 10 rounds or less) while varying the amount of arm bend slightly between each shot. The shooter should observe how the gun moves (how high it flips, if it moves to one side or the other, anything else that stands out) at each position. Most shooters will find a spot about 1-2 inches

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short of locking their arms fully works best for them. It will be the spot where the gun flips the least and tracks straightest up and down, and where they're able to maintain the best grip.

The shooter should then repeat the drill using the distance that worked best, this time altering the angle of the arms up and down while making the same observations. What works best here tends to vary more based on the shooter's anatomy and physical makeup and seems to have more variation between different shooters.

Combine this with the stance work we already talked about and you now have a solid, fluid, comfortable shooting platform to work from.

The gun is a tool that must work best for you, not the other way around.

9:04—Blisters

Crystal's a real trooper. She shot the whole day and developed a blister on her palm and didn't mention it once until we were done shooting. In this case, the gun was covered in a fine-grit grip tape to make it easier to hang onto, and an edge of that tape was catching her just right to form a blister. She said she didn't really notice it until after we were done. CrossFitters have tough hands and tough minds, for sure. The point here, though, is that if you notice blisters forming, sore spots on your hands or places getting rubbed raw, figure out what part of the gun is causing it, and change it. The gun is a tool that must work best for you, not the other way around. In some cases, there's no way around it, and you'll end up developing a callus in those spots. Shooting a gun that isn't comfortable to hold, though, isn't any fun—and this is supposed to be fun, right?

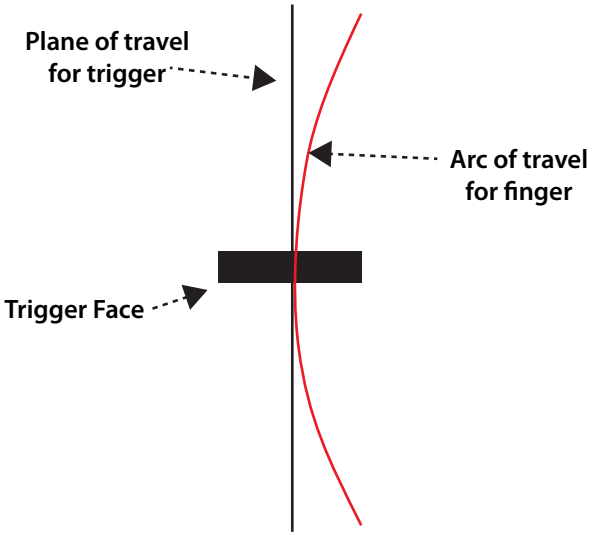
Be aware that in some competitions, you may be limited as to what modifications you can make to your gun. Double-check your intended usage before you make any permanent (read, "expensive to undo") changes that might prevent you from competing with the gun, if that's your intent.

10:20—"Pull the Trigger to the Right"

A little cryptic, right? Here's why: after we worked on trigger control and a couple of drills to get used to the gun moving under recoil, Crystal began shooting much better groups. However, they were consistently to the left of her aiming point. A decent group indicates she's doing everything consistently. That's good, because it means she's not jerking on the trigger anymore, and we have a behavior we can now easily diagnose and correct. So, the question is then whether she's lining the gun up off to the left or pushing the gun to the left when she's pulling the trigger.

This is easy to check. I had her line the gun up on target and keep her trigger finger on the side of the frame. Then I stood next to her and pulled the trigger for her. The shot center punched the target. We did it again with the same result. Clearly, she knew how the sights worked and how to line the gun up on target. The next thing to look at is how she's pulling the trigger.

When viewed from above, the trigger of a gun moves on a fixed plane, straight forward and backward in relationship to the gun itself. Unfortunately, we weren't built with a finger than can match that movement while still gripping the gun with the same hand. Instead, the tip of the finger describes a shallow arc as it moves rearward, like so:



We want the arc the fingertip is traveling on to be perfectly tangential to the plane the trigger is traveling rearward on at the exact moment the trigger breaks, otherwise the finger is effectively exerting a sideways force on the gun at the same time it's pulling the trigger rearward.

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There are a few ways to address a discrepancy here. If the shooter is pressing the trigger with the very tip of the finger, or with the bend in the first knuckle, he or she should reposition the trigger finger to press with the actual pad of the finger. Using the fingertip tends to push the gun away from the strong hand (so, to the left for a right-handed shooter), whereas using the knuckle tends to pull the gun toward the strong hand (to the right for a rightie). If that position is hard to find consistently for the shooter, you might be able to make the trigger shorter or longer to accommodate the shooter's hand size and build.

Many guns don't allow for that adjustment, though, and that was the case here. The trigger was simply too long for Crystal's hand size, and she was effectively pushing the gun slightly left as she pulled the trigger. It's a very common issue, and one that's frequently overlooked or attributed to a trigger jerk.

I gave her a cue that encouraged her to be pulling the trigger straight back when it broke: "Feel like you're pulling the trigger to the right." Bingo. Her groups started centering up nicely.

10:43—The Squat Game

It wouldn't be CrossFit without some competition, right? Dave and I wanted to give Travis and Crystal a little taste of the adrenaline rush you feel when there's a little pressure applied—in this case, a little exercise penalty for inaccuracy while shooting for time. Dave originally wanted to do 20 burpees per shot that missed the high-scoring zone on the target. Thankfully, we talked him down from that to a measly 10 squats instead.

I demonstrated the drill first with my single stack. That gun only holds 10 rounds, though, so it wasn't the full drill. I ran the drill a second time with one of the student guns, which is the run you see in the video. While that second run was nice and controlled, and all A's, I showed off a little too much in the demo run and racked up some squats. My assistant for the day, Aaron Marco (also a CrossFit Central athlete and competition shooter), got in on the action as well. No one escaped unscathed. We cumulatively did just shy of 400 squats!

See, when the adrenaline kicks in, you tend to regress back to a more basic skill level, and the only way to improve that basic level is to practice a lot, and practice smart.

Dave Re Photography

With some basic tips and a lot of practice, you can learn to be very accurate with a handgun, and then you might want to consider testing your skills in a practical shooting competition.

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Grip Pressure, Grip Strength and Effects on Recoil Control

It's tricky to describe how much grip pressure to use on the gun and in what proportion in each hand. Terms such as "firm" or "strong" are arbitrary. They mean different things to you than they might to me because they're based on feel. In large part, you'll know how firmly to grip the handgun much like you intuitively know how firmly to grip the steering wheel or a hammer. Some generalities might help, though.

In general, the tighter you grip the gun, the less it will tend to flip. However, grip it too firmly and you'll induce tension in your arms, and you'll have a hard time preventing the gun from shaking due to that tension. Also, the more firmly you grip with your strong hand, the less control you'll actually have over your trigger finger. Grip too firmly with that hand and you may not be able to even pull the trigger.

At the risk of being arbitrary, what seems to work well for most folks is to grip with about 80 percent of their maximal grip force in the weak hand and somewhere around 50 percent of their maximal grip force in the strong hand. This seems to be a good starting point that will not induce undue tension and will still allow you to manipulate the trigger properly. I feel like I have a very firm grip in my left hand and am just basically holding onto the gun with my right hand.

Inevitably the question comes up about how to increase maximal grip force so that the 80 percent equals a larger force on the gun. Simple: grab heavy stuff and move it around, especially with force. Deadlifts, Olympic lifts, farmer carries, pull-ups, dumbbell and kettlebell work, fingertip push-ups—get the idea?

✦

Peter Tsai Photography

About the Author

Dave Re began his shooting career in 1993 and has a total of 12 years of experience with competitive shooting sports. He has been actively teaching practical shooting to motivated students in the U.S. for three years (DR Performance Shooting, dave@drperformanceshooting.com). In late August 2007, he started training at CrossFit Central in Austin, Texas, and has used CrossFit as his primary fitness program since that time. Dave is also a CrossFit Level 1 trainer. He has been happily married for 14 years and is owned by three miniature dachshunds and a horse.

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