



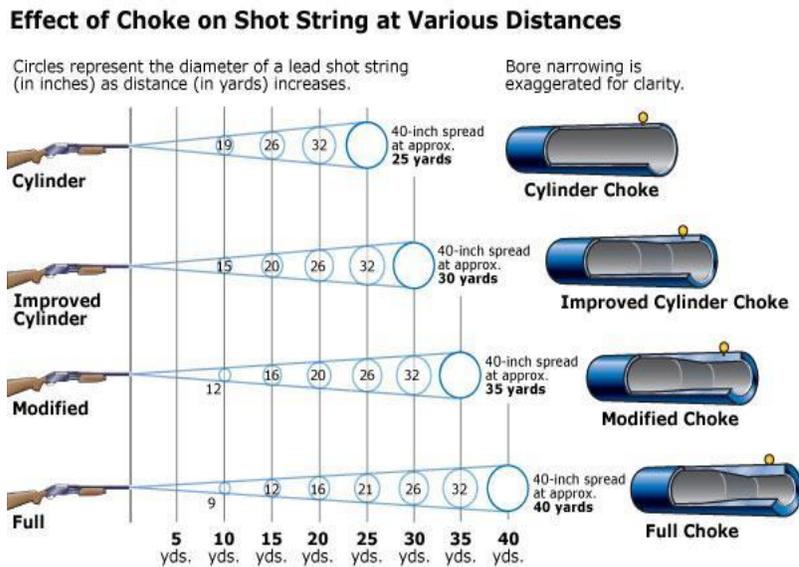
In my last article on leading the target we briefly discussed the importance of patterning your shotgun to understand where the shot is going to go and at what amount of dispersion related to where you are aiming. As instructors we are often asked 'what pattern should my gun shoot' and the correct answer of 'that depends on a lot of things' isn't very helpful. It's the variables that make it dependent so let's explore patterning in more depth.

Patterning a shotgun is easy enough to do once you understand how, what information you are looking for and what it means. The principal requirement is the time to do it as, like most things related to the shooting sports, patterning is not a one and done thing. You will also need to have one key data point before you fire a single shot, and that is to count the number of pellets in the load you use. To do that simply cut open one shell of your loading of choice, pour the pellets into a wide cup or tray and count them up. While the number of pellets of a given size can be a known figure, there are typically 410 #8 pellets in an ounce of shot, the actual number of pellets can vary a bit from shell to shell and loader to loader, so having one number from the actual loading you shoot will give you a real world baseline. This is particularly true for those of us who load our own shells.

Most of us will be familiar with the illustration at the left which shows at what distance from the muzzle a shot pattern should reach a 40 inch diameter based on function of the amount of choke applied. The more choke, the tighter the pattern at greater distance.

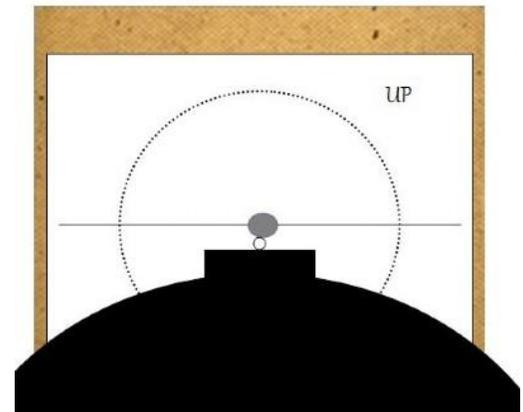
Seems pretty easy, right? But patterning will tell us how much of the shot will still be inside the circle, and where the center of the pattern actually is; known as the Point of Impact (POI) which can be distinctly different from the Point of Aim. POI can also vary greatly with different shot sizes, chokes and guns. A note here for you water fowlers; it's not a secret that POI can be vastly different with steel shot than it is with lead shot on the same gun and choke, so if you use the same gun with lead for

clays that you use for ducks it's a very good idea to pattern your gun for both types of shot. This will become the case for all of us come 2019 when lead becomes banned for all hunting here in California.



The materials you need, aside from your gun, shells and personal protective equipment are very simple. Banquet table paper, butcher paper or wide craft paper, all of which can be had in rolls, work very well. A four foot width is the optimal size. You'll also need some felt tip markers, a nail or pin with 15 inches of string attached, and six inch diameter target pasters to use as a point of aim. I use large binder, or alligator, clips to hold the paper on the board. You will mount your paper to the patterning board and place a target paster in the exact center of the paper. That will be your point of aim. Our patterning board at VOMTC is alongside the rifle range near Trap 7, make sure it is safe to fire on and then step back to the desired distance from the board to fire. But how far away should I go, you ask? The industry standard is 40 yards and not all the shot may fall on the board at that distance, particularly with a more open choke, so it's vitally important to apply one of the key rules of firearm safety and know what is beyond your target.

When you aim you should see what is illustrated to the right. The front bead will be hovering on the rib and you should have the paster perched on top of the bead in what pistol shooters will recognize as a "six o'clock hold". When you have it lined up fire your first shot, then make your gun safe and walk down to put up a fresh target. Repeat the process and fire one shot on the second target. Generally two shots will be sufficient, but three to five shots (each on a clean target) will give you more data. Now the time consuming part begins.



Using the paster as the center point, use the string and a marker to draw a 30 inch diameter circle on the paper, then count the number of holes inside the circle. Divide that count by the total number of pellets in the load, remember you counted those before you started and hopefully wrote the number down, and you have the pattern density for that load with the choke used. Drawing lines from 12, 3, 6 and 9 o'clock through to the paster will divide the target into quarters and help you see where the pattern actually centered on the target which is your Point of Impact.

But wait, Point of Impact is different than the Point of Aim, you say? Yes, I wasn't kidding when I mentioned it earlier, it's true and in some cases it's by design. Remember that shotguns are not designed for precision fire and, also as we noted earlier, POI depends on a lot of things. Some of the variables you can control we've talked about in past articles; gun mount, gun fit and sight picture are chief among these. Other variables we've mentioned in this article; shot size and choke to name two.

If you have doubts about where the POI actually is, fire three shots on the same patterning target and it will become pretty obvious pretty quickly. A field gun will shoot about half the pattern above the POI and about half the pattern below. This would be considered "dead on" or a "50/50" pattern. You'll often hear experienced trap shooters talking about their guns being "60/4" or "70/30" and, while it sounds like secret trap shooter code, it's really an expression of how much of the pattern is above and how much is below the POI and, at the end of the day, how "high" the gun shoots. Trap shooters very often like to have some room between the bead and the bottom of the bird so that it is always in their vision and having the pattern more dense above the POI helps them achieve that. An excellent article on POI percentages is available [on the Browning website](#).



See you again soon with another shooting tip, but in the meantime, remember to keep those muzzles pointed to the ground when not on the firing line, and keep those actions open whenever you are not actually shooting.

Safety first, foremost and always! -- Frank

