

Shooting Mechanics-Position

If you do not have a good solid position nothing else in position shooting matters. It is impossible to have a building that will last a long time without a strong foundation and the same holds true in shooting. If you do not have a good position your shooting will suffer. The first key to a good prone position are triangles. Geometrically the triangle is the strongest shape so in our position we want to have as many triangles as possible. Look at the picture below.



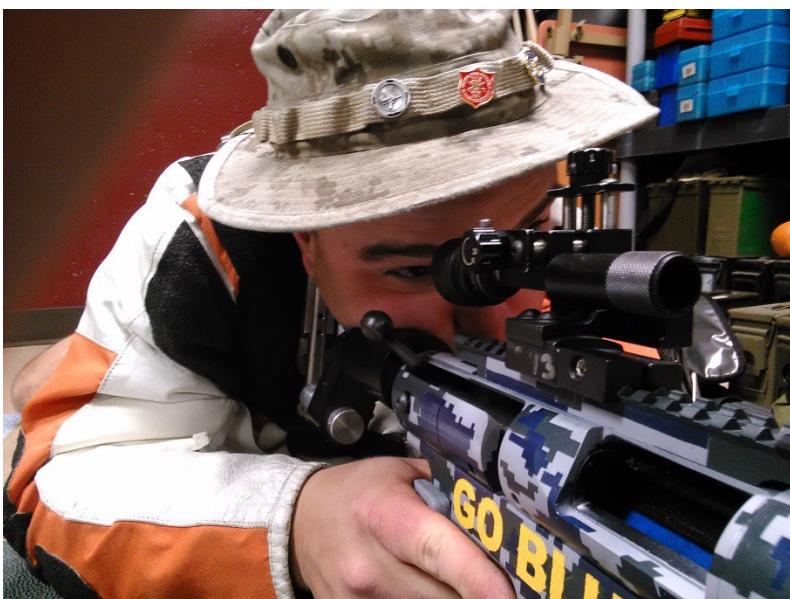
The yellow triangle is fairly common this is the triangle that is formed between the rifle and the support arm. Likewise the green triangle is easily formed by the trigger arm on the rifle and the rifle buttstock. When you get into position these are the two that are automatically formed. However, the two that most beginning shooters forget are the red and blue ones. Sometimes you see beginning shooters with their legs straight, while this may be comfortable it does not provide any support to the core and shoulders, which is what supports the yellow and green. The key to all of this is having the knee of the trigger hand up. Doing this will form the red triangle. The red triangle will directly support the core and shoulders helping keep your position steadier through recoil. By bringing the knee up to form the blue triangle you also help stabilize the hips providing additional support. If we would look at the position from other angles we would see other triangles that are present. All of these triangles add up providing a solid skeletal position that is repeatable.

To test this line up on a target with good NPA but with both legs straight. Fire a shot and then notice how much you have to move over a string to get the NPA aligned again. Continue this for a number of shots and you will notice your position will move, NOT GOOD! Now do the same thing but bring your knee up. Does your position move as much? The answer will be no. If your position does not move then your NPA does not move thus allowing you to have a more repeatable position.

After you have a good body position, the next important thing is the holding of the rifle. Too many shooters shoot a rifle that is too long for them. This results in a position that is very low.



While a low position is very stable it can cause eye strain as you have to force your eyes up to look through the sights also it can cause cheek weld issues.



In the picture above the shooter is straining to keep the eyeball up and looking through the rear sight. Over the course of the string this will cause eye fatigue. If you are shooting several matches in a single day tournament or even a multi-day tournament you will develop vision issues from this.

Another issue with the rifle adjusted too long is that in order to manipulate the bolt and load rifle the rifle must be taken out of the shoulder. Also, the shooter has to reach for the trigger.

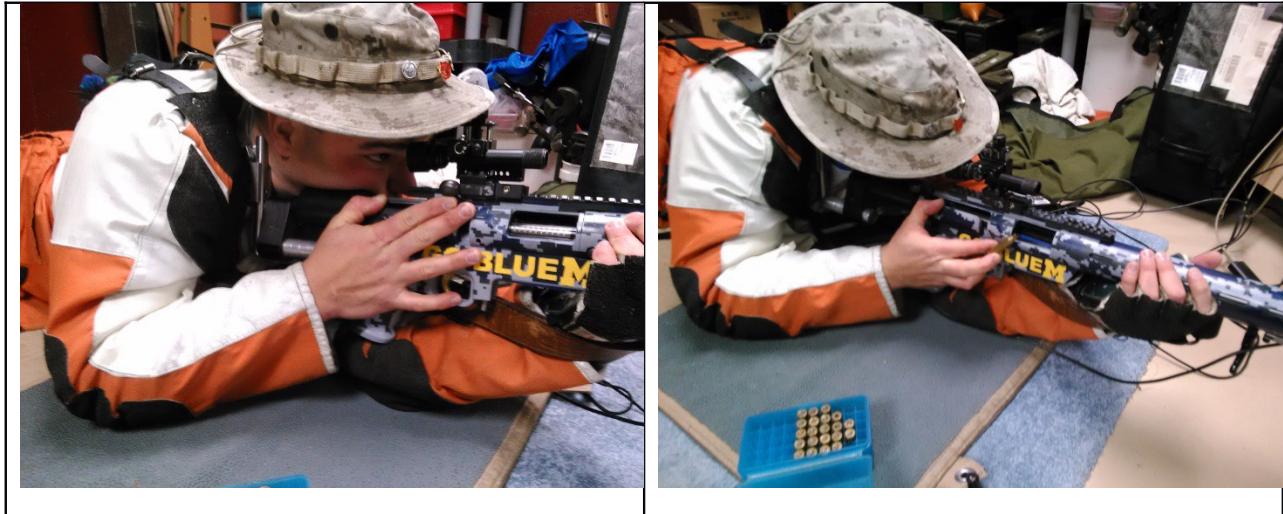


While it is not necessary to do this, keeping the rifle in the shoulder eliminates a variable from shot to shot.

The high position basically is the opposite of the low position. Since you are higher there is more weight on the elbows and it is less stable.



However, the shooter has better leverage to work the bolt and load the rifle from position and better leverage on the trigger for a good squeeze.



The other benefit is it offers a better cheek weld and no eyestrain.



However position stability is the key to good prone shooting and this far outweighs all the other benefits of a high position. Obviously we want to find a position that is in the middle of the two. The first key to doing this is to set the rifle up correctly. In order to do this a good rule of thumb is to set the length of pull equal to the distance to the hand stop. For the average 5'10"- 6' shooter a good rule of thumb is 12".



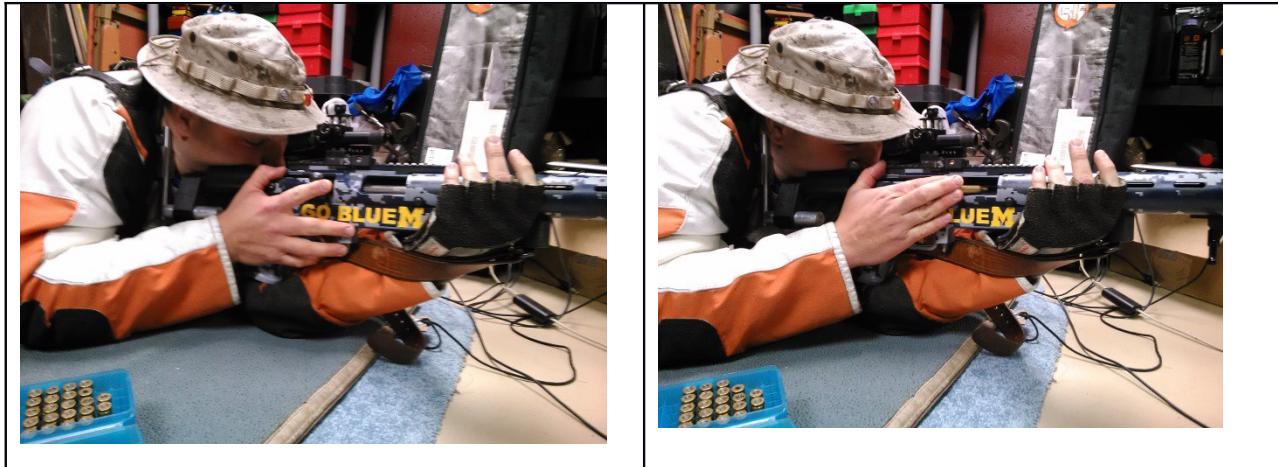
Length of pull is measured from the buttplate to the trigger. Handstop distance is measured from the trigger to the handstop. Now in the above picture the actual dimensions are a little different than 12":12" but that is a good place to start. Over the course of shooting you will find out what works best for you. This gives you a good place to start from. From this you want to find a position that offers all the benefits of the above two while minimizing the disadvantages. Below you will see the shooters position that has evolved over time.



The shooter is in a stable position but not too spread out that he is unable to get good leverage on the trigger. Also if you notice above and in the picture below the shooter is still able to get a good cheek weld and does not have any eye strain from having to look upward.



The other benefit is while lower than the high position the shooter still has enough leverage to manipulate the bolt and load the rifle while in position.



Now for the service rifle shooter you do not have the luxury of adjusting the LOP. Because of this shorter limbed shooters may not be able to keep the rifle in position to load. If you can it will help, if you cannot do not force it just to say you can. However, you can adjust where you position the support hand. Again, you are going for the same goal, a position that is stable but yet does not strain your eyes.

The final part about rifle position is the sling. The sling is meant to support the rifle, your hand just holds it. If your hand is supporting the weight of the rifle then you need to tighten the sling. You want the sling high on your arm, at the top of the bicep and below the deltoid is preferable. You want the sling tight so as not to slip. However, if it is too tight or the end of the cuff is against the brachial artery you will get a pulse, so you want it snug but not too tight. You can also compress the brachial plexus if the sling is too tight, which can cause the hand to go numb. On the other end you want the sling tight so that the sling supports the weight. General rule of thumb is to have the sling tight enough

that if you are keeping the rifle in your shoulder, towards the end of the string you should be experiencing little to no numbness.

One other aspect for position is the position of the spotting scope. You want it set up so you can be in position looking at the target through your rifle sights and with just moving your head look through your spotting scope. Too many shooters have to crawl over to it. It does no good to have a solid position where you are locked in only to have to move to look through your spotting scope.

The other recommendation is have your ammo box located so you can keep your trigger elbow down and still reach the box. If this means you cannot have a box of 100 on the line, then bring a smaller box. The goal is to set stuff up so you have to move as little as possible.