

Eyes on Target

by Brandon Begotka, OD

“If you can’t see it, you can’t hit it.” Whether or not you have heard this phrase before, as a trap shooter you know it to be true. Every shooter understands that in order to perform well you must be able to see well, but what does it mean to ‘see well’? In this series of articles, I hope to help you to better understand the many visual skills necessary to see the target accurately and precisely and how your vision can impact your performance.

When most people think of vision, they think of 20/20. But how many people know what that actually means? 20/20 is a measure of visual acuity, which is the ability to see detail at a given distance. Every distance eye chart has a 20/20 line. The first 20 refers to the test distance, which is 20 feet. The second 20 refers to the distance at which an ‘average’ person can decipher that size letter (for a 20/20 letter the size is a little smaller than 3/8ths of an inch). If someone has 20/30 vision it means that an ‘average’ person (with 20/20 vision) can see that size letter at a distance of 30 feet, but the person with 20/30 vision would have to move up to 20 feet to see it. While good visual acuity is important to see the target clearly, seeing 20/20 is only one of many visual skills that are critical to success in trap shooting.

One of the most important visual skills in any sport is depth perception, which is the ability to perceive the spatial relationships between objects in visual space. There are two types of depth perception: monocular (meaning one eye) and binocular (meaning two eyes). Our brain uses both monocular and binocular depth cues to accurately determine where things are in our visual space. The more information our brain has about these relationships, the better our understanding of where things really are and the better our performance in sports. Accurate binocular depth perception is critical for success in sports and in order to have it both eyes must be working well together.

There has been a lot of discussion on the phenomenon of cross dominance and how to overcome its effects. Many shooters have resorted to closing an eye or placing a dot on their lens in front of an eye to reduce these effects. This may seem to help, but by doing this he or she is unknowingly eliminating the accurate binocular depth perception needed by the brain to accurately judge where the target is. In other words, the shooter is eliminating the symptom that results from the two eyes not working well together instead of the cause.

At this point you may be wondering, “Can the way a person’s eyes work together and their depth perception be changed?” The answer is yes! In future articles we will further explore the visual skills necessary to see well and how they relate to trapshooting.

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