

Eye dominance — Myth & Magic

Since becoming involved with Easy Hit, a device to cure cross-eye dominance, Graham Oades has become something of an expert in the subject.

Did you know that youngsters up to the age of 16 can have frequent changes in eye dominance. At about 45 years of age it is common for men to develop eye dominance problems and statistics provided by optometrists indicate that 75% of women and 35% of men suffer from eye dominance issues. And then there are a few shooters who are tested and identified as having a problem but remain unaffected.

The terms 'master eye', 'central vision', 'middle vision', 'cross-eye dominance', 'peripheral vision', 'depth perception', 'off eye', 'gun fit' and 'test for master eye', have long been debated by clay and game shooters. Indeed, the impact of eye dominance goes back to the archers of the middle-ages and before so they are not new.

DVD in your right hand cover your left eye. Repeat the exercise three times. If the object you were looking at vanishes you have 'cross eye dominance'

Testing for Middle Vision

There are also several ways of identifying middle vision but again for simplicity use the DVD. This time you will need the assistance of a fellow shooter facing you and standing about four feet away. Conduct the same test as before but this time your assistant must cover one of his eyes with his hand. Use his eye as the object to view through the hole in the DVD. Your fellow shooter then describes what he sees. Repeat the exercise three times. As the assistants eye dominance is perfect – he is only using one eye – he can see your true eye dominance. He will be able to confirm which eye is dominant as it will be the eye he sees through the hole.

He will also be able to tell you what he sees in the dead centre of the hole. If it is your eye aligned to your shooting shoulder side you have perfect master eye (Fig 1) but if it is the other eye you need to find the most effective form of correction. Based on field trials it is far more likely that the centre of the hole will be somewhere between your eye and your nose (Fig 2). The worst example of middle vision – you can just see the shooters right eye is Fig 3. It is easy to understand how the terms middle and central come to represent the same vision effect.

Testing for Cross Eye Dominance

There are several ways to check for eye dominance. However, for simplicity get hold of a DVD or CD, hold it in the hand that normally pulls the trigger and with both eyes open raise it at arms length from waist height and look at a single stationary object. If you are holding the



Master Eye

Of your two eyes, only one can be the 'Master Eye'. This is determined by your brain when it receives two images from your eyes – it is not directly linked to you being right or left handed. If your master eye is not the one aligned to your shooting shoulder you have 'cross eye dominance.'

Middle or Central Vision

These two terms refer to exactly the same eye dominance effect. If you cover one eye with your hand you now only have one eye and it follows that it must be your master eye – it is totally dominant as there is no interference from the other eye. Sadly, for a large proportion of shooters, their master eye will not be perfect and the direction in which they point the gun will be affected as the brain's point of reference can float between the master eye and the non master eye.

have the effect corrected automatically when they mount a shotgun. The shotgun acts as a distraction and it draws the eye dominance closer to the perfect position.

Peripheral Vision

One of the simplest and most often used correction methods for both 'cross eye dominance' and 'middle vision' is for right shoulder shooters to close the left eye and those with a left gun mount to shut the right eye. However, the side effects are seldom explained. This solution reduces your peripheral vision. The effect can be experienced by standing upright with both eyes open with your left arm outstretched horizontally to your side. Whilst facing directly forward move the left arm backwards and stop as you lose sight of it. That is the extent of your peripheral vision with your left eye open. Now close the

over time, learn to perceive distance and be able to excel at close targets or trap. To judge distance you need both eyes to provide two Dimensional images to the brain, which then combines the images to make it 3D.

Off Eye

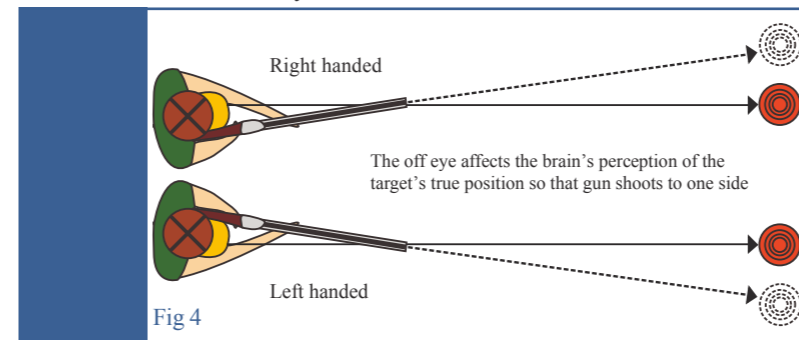
The term sometimes used to describe the 'master eye' not aligned to the view down the rib of a shotgun, (Fig 4).

Gun Fit

Poor gun fit can create the effect of cross eye dominance. Where the comb is too low the eye along the rib cannot see past the breach and this causes the 'off eye' to take over when the head is placed on the stock at the time of firing. All shooters should invest in a basic gun fit check by a qualified ICPSA coach before they buy a gun. There are many other factors that can affect eye dominance including tiredness, food and drink intake. Many shooters who were tested stated that their accuracy changed during their shooting but were unaware they had a middle vision problem.

The Cure

There are many effective cures including specialist glasses, placing patches on glasses, applying hair gel or Vaseline to the lens of the 'off eye', closing the 'off eye' or fitting an **Easy Hit Fibre Optic Bead**. To get the magical results we all aim to achieve when shooting is to get some qualified instruction in basic techniques. You must learn gun safety and have your gun fit checked before you buy. However, much if not all of this effort will be in vain if you are not aware of an eye dominance problem.



left eye and move the arm forward until you see it. This test highlights the restricted view of a left to right target that may occur when using this or other eye blanking correction methods. The impact of

'Middle vision' will reduce the effect of 'cross eye dominance' as it moves the vision towards the correct eye. However, 'middle vision' will reduce the accuracy of a shooter with a 'master eye' that is aligned to the rib.

A lot of Coaches will conduct the basic test for 'cross-eye dominance' and recommend action to reduce its effect but depending on their knowledge and experience they may not be fully aware of the impact of middle vision on a shooter who appears to have a 'correct master eye' aligned to the rib.

Field tests confirm that a proportion of shooters who prove to have 'middle vision'

restricting peripheral vision has additional safety implications. In most clay shooting disciplines gun swing is restricted by cages, however, in FITASC there is no such restriction. It is common for clay shooters, especially those new to the sport, to close an eye for the first shot but forget to close it for the second which leads to inconsistency.

Depth Perception

Depth perception and the ability to judge distance is equally important in clay and game shooting. You cannot judge distance with just one eye. People with one eye can,

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Fig 1: Perfect Master Eye



Fig 2: A degree of Middle Vision



Fig 3: The worst example of Middle Vision