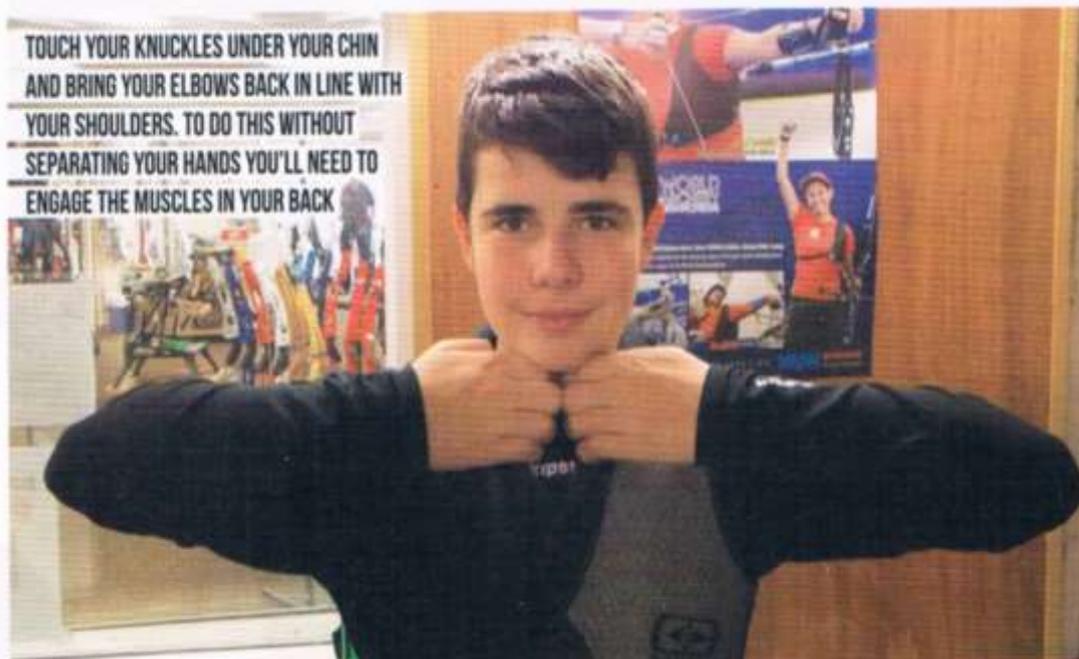


## Back Tension Explained

Comments about back tension and using your back are a common topic of conversation up and down the shooting line. Sometimes you will even be told that you are “not on your back”. The trouble is that, while discussions around the problems are readily forthcoming, it is not the same when it comes to solutions. It can be left to you to search the internet and read books to find out more, and unfortunately some solutions contradict each other and others are quite complicated and really only intended to refine the technique of international shooters. There is no doubt however, if you use your back muscles correctly when shooting, your release will be more consistent and your scores will improve. In this article I will explain why back tension is important and how we can all achieve it, without having to be able to name all the muscles in the back and worrying about things like the “transfer stage”. The checks mentioned here also take into account that most of us are not as fit as we perhaps could be, and our lifestyle and work choices have carefully moulded our bodies into the shape they are today.

### BUILDING BLOCKS

It is very difficult to take each item of the shot cycle and talk about them in isolation, as one thing leads on to another, and, rather than a page or two, you find you have written an entire book, but in this article I will try because what I would like you to get out of this feature is the feel and



sensation of using your back so you know when it is right or wrong. However, everything that we do in archery starts with our feet and good posture, so before we concentrate on the topic in hand it is important to remember that when shooting you should try to stand tall, do not slouch, have a stable and repeatable stance with the shoulders horizontally square to each other, not hunched up or rounded. Your front arm and shoulder should be level, with enough forward tension to hold the bow steady, and your elbow should be rotated so that the inside does not stick out into the path of the string. If you are not already using your back muscles then the two biggest tell-tale signs are: firstly,

the drawing elbow is pointing away from the body; and secondly, the release is not clean and the hand moves forward or away from the face.

#### WHY USE THE BACK MUSCLES

The simple reason why it is more advisable to use your back muscles rather than the biceps to draw the string all the way back to your face, is that your back muscles are bigger and tire less quickly. Also, by using your back you are able to get your drawing arm more in line with the arrow, resulting in an improvement in your release.

#### HOW TO GET IN LINE

For many, getting in line will feel strange and difficult to achieve at first because you will be putting your skeleton and muscles in positions that are not natural on a day to day basis, and if you have been shooting for some time your body is already used to shooting in a particular way. Everyone is different and for some, due to injury or a particular problem with posture they may never be able to set up their shoulders as shown. If you are in this situation there is no point risking injury, just accept it and work with it as best you can - it will not stop you shooting or enjoying your archery. Recently I worked with an archer who could not raise their drawing arm horizontally in line with the arrow at full draw, so we just found a slightly different, though comfortable and repeatable, position. The biggest difficulty is explaining what using the back should feel like, so here are three exercises that you can do that will allow you to feel and control what you are trying to do. In all instances we are interested in the feeling of the drawing side of the back (furthest away from the target). Some archers will suggest that you squeeze the shoulder blades together, however, in most cases this makes you stick your chest out. So study the pictures and try and repeat the positions as closely as you can.

A) The picture above shows you a simple exercise that you can do which, when done as shown and everything is in line - arms, hands (back of the hand nice and flat) and elbows - you will feel the tension in your back. To get the right feel make sure your hands are under your chin and you are not sticking your head forward to meet your hands.

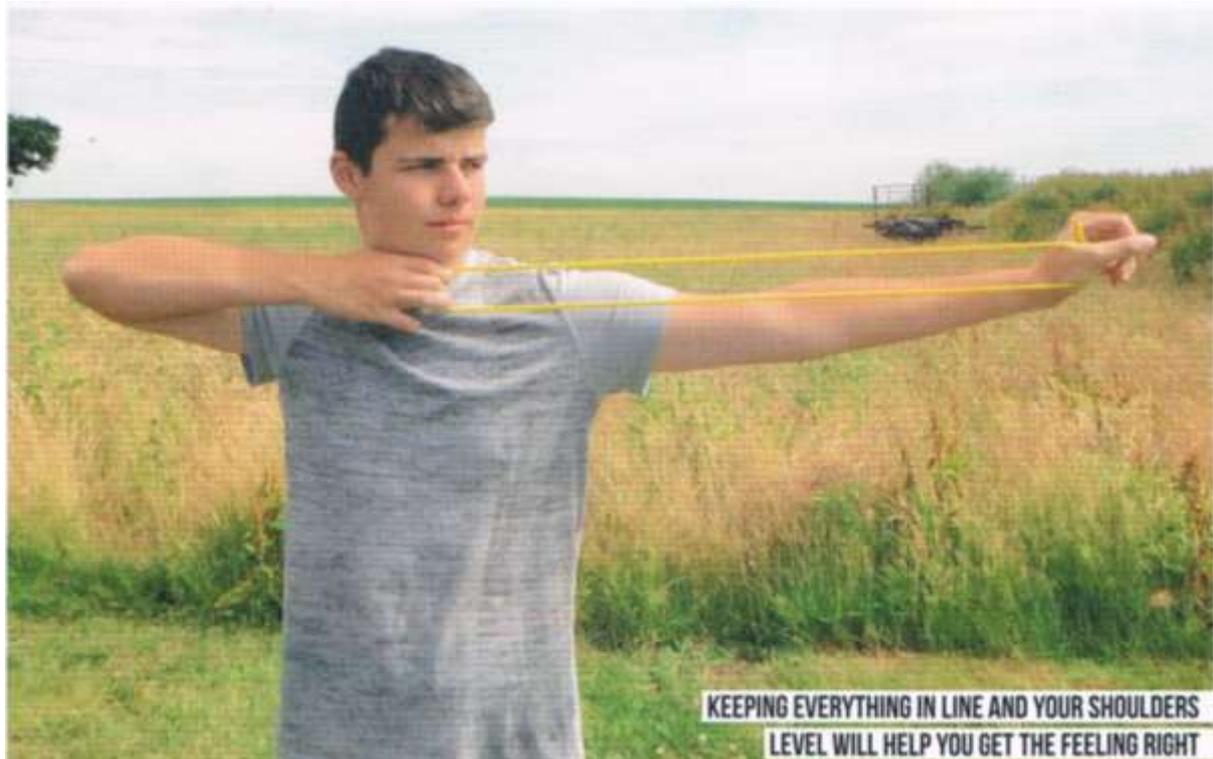
B) Using a stretchy band (as seen in the rest of the pictures) is the best way to work on the feeling. This is also best done working with a colleague or using a full-size mirror to make sure you are standing tall, your shoulders are level (the front one is not rising up, you are not pushing the hips forward or sticking your stomach out by arching your back). You will find using a stretchy band is a lot easier than your bow and will enable you to easily see and feel the correct posture.

C) The position of your elbow at full draw will again tell you if you are in the right position. Unfortunately, most of us do not seem to have the overall awareness to know where it is. So here is a little tip I learnt many years ago - remember, "no pain no gain" - and pinch the tip of your elbow. The pain will focus your brain and you will then know exactly where it is. Ideally, the elbow should be in line with your ear (again refer to the pictures) and level with the arrow, though some find they get a cleaner release with the elbow just above horizontal. When things seem to be going wrong for someone and I suspect it is due to a low or high elbow I do this as a quick check. All three of these exercises will help you to get the right feeling and will, over time, improve your posture. Once you feel comfortable with the stretchy band, you can progress to your bow and shoot some arrows. The big giveaway if you are using the back is that your drawing hand will automatically go backwards

when you relax your fingers to release the string. Any forward movement of the hand, or if you can feel it coming away from your face, will tell you that you are not quite there yet.

#### MORE ADVANCED TRAINING OPTIONS

This article is a basic introduction to back tension to help people starting out get to grips with the concept, but for those that will want to take it further there is a training aid that you can attach to your bow string which will allow you to safely shoot your bow in your garden - or even indoors if your ceilings are high enough. Used correctly, you can practice getting the shot on your back and the feeling of the release. There are a number of versions available, including the original Range O Matic Formaster and the Astro Shot Trainer, which seem to be the most popular two. Both come with comprehensive instructions and are used by many top international archers. On the theme of no pain no gain, when you use both of these devices and you do not use your back muscles the shot reaction will soon tell you, but I will leave you to find out why for yourself: obviously it is not that dramatic, but certainly an incentive to get it right.





Perhaps the most surprising piece of training equipment to help you get the right feeling is a compound bow and a release aid. A correctly set up compound for your draw length will automatically put your back in the correct position, the use of a release aid will give you a surprise release, and for many this will be the first time their drawing hand goes back naturally without any false follow-through that you sometimes see on the shooting line. Trying all the exercises will set you on the correct path to shooting using your back muscles rather than relying on your smaller biceps. By concentrating on the position and the direction of movement of the tip of your elbow (hopefully backwards and away from you) you will have a better chance of being more in line and engaging the correct muscles and bone structures. The continued movement of the elbow throughout the shot will ensure that you are not relaxing the drawing shoulder tension (creeping forwards) when you get close to the release, where some of your attention is taken up making sure that the sight pin is floating over the gold and your string picture is in the correct place.