

Steve Ross

# Putting Your Form Under Pressure

*When engineers search for a weak link in a mechanical system they often put the system under stress or pressure. By increasing the level of stress beyond what would normally be encountered, weaknesses can be found. Could the same concept apply to one's archery form and shot execution? After some consideration and testing of this concept I believe this is a fertile area for improving our archery game.*

would not have noticed my inefficient bow arm alignment. I would have continued to use my inefficient form because I could get away with it. The pressure principle, however, makes a weakness in form obvious.

Another method of putting your form under pressure that I have worked with is holding at full draw for extended periods of time. Drawing my compound bow I can hold for about one minute, if I am in reasonable shape. Inefficient skeletal alignment will make holding a bow at full draw much more difficult than using good straight alignment.

Although he doesn't say this explicitly I believe the NAA's new national archery coach, KiSik Lee, uses the pressure principle as well. In his book *Total Archery* and on his website [www.kslinternationalarchery.com](http://www.kslinternationalarchery.com), Coach Lee describes a series of exercises he calls SPT. These are holding exercises much like I describe above. Mr. Lee promotes these exercises to build archery-specific muscles. I suspect a side benefit is that the archer will find an efficient biomechanical position as well.

In thinking further about the pressure principle it is not hard to see other ways it can be applied; some of these may be familiar to you. A high level professional archer I know practices with a differ-

Being an engineer by trade I have worked with what I will call the *pressure principle* for many years. It wasn't until this year that I discovered its true usefulness in improving my archery form.

My first encounter with the pressure principle was when I increased my draw weight from the transition from shooting indoors to shooting outdoors. In the past I have slowly increased my draw weight over time to bring the peak weight of my compound bow from the 37 pounds I shoot during the indoor season, to the 47 pounds I use for the outdoor season. This year, due to time constraints, I did something that defies all logic, I increased my bow's draw weight by six pounds in one session. I worked with this increased draw weight at close range in front of a blank bale and struggled mightily, as one would imagine. Little did I know at the time, but I was applying the pressure principle to my archery form. This large increase in draw weight stressed the biomechanics of my draw and hold. With the added pressure, several weaknesses became apparent to me. For one, my bow arm and shoulder were not aligned properly, so I worked on my alignment and a more efficient draw technique to accommodate the increased draw weight. Finally I was able to achieve the stability I was accustomed to. It occurred to me if I had increased my draw weight slowly, as I have done in the past, I

Special Feature

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ent mechanical release aid from the one he uses in tournaments. His practice release (of the back tension variety) is setup a little slower than his tournament release. In other words, his practice release requires more back tension or conscious pulling action to get it to fire. I asked him about this and he told me he needs to work on pulling through the shot and his practice release forces him to do this. If he settles for a weak shot, his release simply will not fire. I believe this is another form of the pressure principle. If an archer is weak on pulling through the shot, slowing the release down will reveal this in dramatic (and at times frustrating) fashion. I have tested this myself and can say I now shoot stronger shots by slowing down my release.

Perhaps more familiar than physical forms of pressure are the mental aspects of pressure. Nearly all athletes who compete experience some form of mental pressure. Lanny Bassham has written extensively about this in the pages of *This Magazine*. What I am addressing is using mental pressure to, again, probe for weakness in our archery form. How can mental pressure show flaws in our form? Let us count the ways! Ever notice that shots may go smoothly with little effort at close range but at longer distances you struggle? From what I can tell this is a very common problem. At a certain large, national field shoot I attend every year a long back-up always seems to occur behind a target that is 101 yards away. Every year I observe archers changing their shot timing, holding two or three times longer on this difficult target. What I attribute this to is increased mental pressure breaking down the archer's shot execution on this difficult target. What we need to learn (and this is difficult to do) is to trust our archery form and shot execution and not let the sight picture occupy more of our conscious minds than it needs to. Longer distance target shooting will test your form and execution. How well is your shot sequence ingrained in your subconscious? Shooting difficult targets will be a good indicator. If your shot routine is not automatic, mental pressures will derail it.

Another way to increase mental pressure is head-to-head competition. Challenge your shooting buddy to a few arrow competition. Pretend you are shooting for the world championships and it has come down to the last arrow! The editor of *Archery Focus* and I once had a practice competition of shooting a 14 target field round . . . from the Cub stakes. Talk about pressure, neither of us thought we would miss, which led to overaiming, over-

holding, and more than a little nervousness! Many tricks can be used to simulate pressure and the best archers have a toolbox full of them. Good archers learn to handle the pressure and not vary their shot routines. Archery professionals learn how to react to pressure and learn coping mechanisms to deal with it. I recently read a story of a professional

level archer who was having difficulty making a tournament winning shot. He let down twice then grabbed a different release from his quiver. He went on to win the tournament. Many will assume that this archer may have switched to a release with a lighter trigger. In fact he switched to a heavier trigger. This archer understood that the added mental pressure was forcing him out of his shot routine. The release with a heavier trigger sends a message to the brain that stronger focus on execution is what is needed. If the mind is focused on execution, thoughts about score will be pushed aside.

Want to take your shooting to the next level? Adding a little pressure to your practice routines may be one way to do it. The best athletes are always challenging themselves and archery is really no different. If you are not satisfied with your current performance give yourself a challenge, add a little pressure and build a stronger shot on what you find.



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