

# Discussing Draw Length

## **The "Perfect" Draw Length**



**Your own "perfect draw length" is the draw length setting at which you are the most comfortable and the most accurate.**

There is no right and wrong, no absolutes. But it is unlikely that a 5'10" guy will be successful with a 30" draw length, and similarly unlikely that a 6'3" guy will shoot well with a 28" draw length.....not impossible - just unlikely. For some, a "perfect draw length" may be ultimately determined by feel (and some trial and error) rather than by calculation.

However, we still recommend a common-sense approach here. If you're new to the sport, you'll have better luck if you just play the averages and choose an initial draw length that's similar to others of your same size and stature.

Fortunately, on most bows, making a minor draw length change is pretty simple. So it's not quite a life or death decision to start. However, as you become more immersed in the sport and begin to "fine-tune" your game, you may wish to experiment a little with your draw length.

## **Why Draw Length Matters**

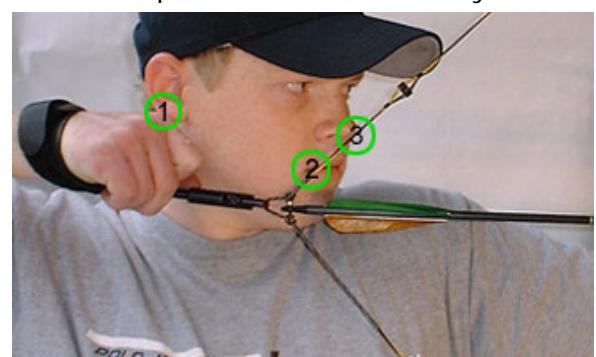
### **More Draw Length = More Power**

The longer your draw length, the longer your bow's power stroke will be - and the faster your bow will shoot. As a general rule, 1" of draw length is worth about 10 fps of arrow velocity. Bows are predominantly **IBO Speed**\* rated at 30" draw length. So if your particular bow has an IBO speed of 300 fps, and you intend to shoot the bow at 27" draw length - you should expect an approximate 30 fps loss in speed. This is one of the reasons that so many archers choose inappropriately long draw lengths. So with regards to generating hot arrow speeds, tall shooters do have an advantage. However, shorter guys might feel better to know that [short-draw archers do have a few advantages over taller shooters](#) in other areas.

***Note: IFAA allows a maximum arrow speed of 300fps, irrespective of draw length!***

### **Finding Your Anchor Point**

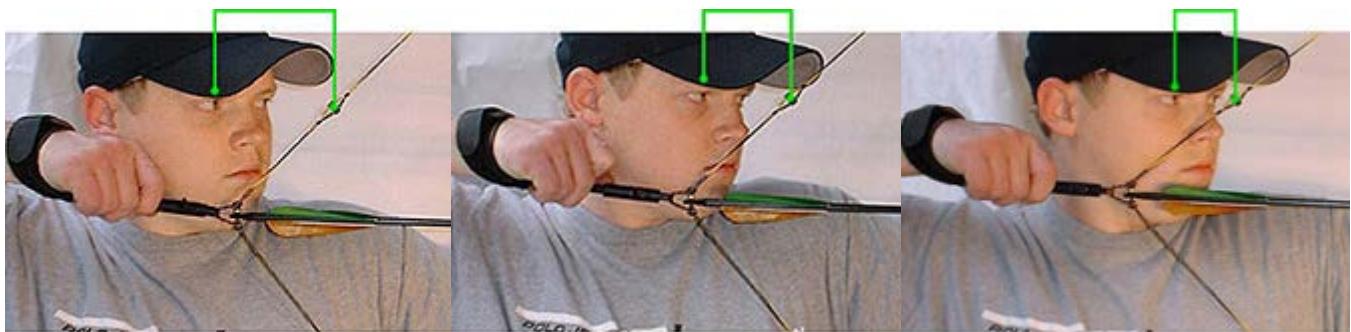
A properly set draw length helps you to establish reference points at full-draw - key elements to reliable accuracy. When you come to full draw, you will want to establish contact points between you and the bow. Hopefully, these points will be the same every time you draw the bow. Perhaps you'll concentrate on where your knuckle meets your ear or cheek (1), perhaps how the string touches the corner of your mouth (2), or how the tip of your nose just tickles the string below the peep (3). Whatever reference points you choose to monitor is up to you, but they are an important part of a consistent routine and collectively help you to establish your



ANCHOR POINT for each shot. If you don't release each shot from the exact same ANCHOR POINT, your accuracy will always be mediocre at best.

### Visibility Through Your Peep Sight

Perhaps the most critical alignment is that between your eye and your peep sight. If you're too far away from the peep sight (draw length too short) then your field of view through the peep is too restricted. And at such an angle, the peep's hooded area isn't large enough to block out the surrounding images that you don't want to see. So you must strain to ignore the outer images, and try to focus just on the objects within the peep's narrow angle of view. Seeing too little inside the peep, and too much outside your peep makes acquiring your target very difficult - even in broad daylight - and next to impossible in low light conditions.



Too Far From Peep

Correct Distance

Too Close to Peep

On the other hand, if you're too close to the peep sight (draw length too long), you get a different set of problems. As objects are moved very close to your eye, into your eye's *Field of Proximal Convergence*, your eyes naturally begin to cross (even if you have one eye closed). It's very difficult to "un-train" your eye reaction to this involuntary reflex - so sighting will always seem unnatural and strained when the peep is too close to the eye. A peep sight that's too close to your eye will also give you a jumbo field of view that makes precise aiming considerably more difficult.

### Shooting Form Problems

#### Draw Length too short:

If your draw length is too short, maintaining your reference points becomes more difficult. At full draw, your anchor point is effectively "floating". Without some physical contact at your reference points, it's very difficult to steady on target and make a repeatable shot. This also puts your eye too far away from your peep sight, as we discussed earlier. If your draw length is too short, you have to compensate by leaning into the string or bending your bow arm to give your body more contact with the bow. Unfortunately this causes most shooters to close-down their stance; hand-torque their bow to the right and tilt their head awkwardly to the side to see through the peep sight....not a good way to shoot.



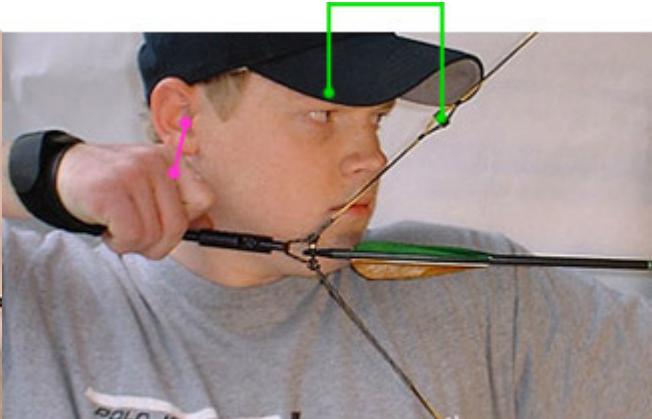
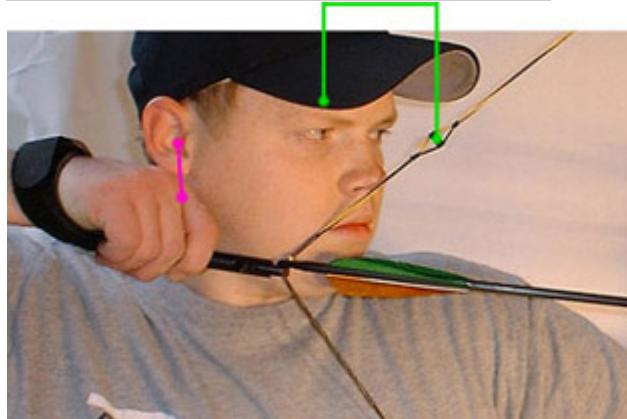
## Draw Length too Long:



If your draw length is too long, you get a different host of troubles. Again, your peep sight will be too close to your eye and some or all of your reference points will be difficult to establish. To make matters worse, compensating for a long draw length will cause you to open your stance too far, hand-torque the bow to the left, push your shoulder out and away from your body (adding tension and inaccuracy to the aiming process), and to lean your head

back in an attempt to see properly through the peep. To add insult, opening your stance to compensate for an overly long draw length can put your bow arm (holding arm) in the path of the string. So a bow set for too much draw length will often reprimand the shooter with some alarmingly painful string-slap on his forearm. Ouch! When you're shooting a proper draw length, with the proper shooting form, your bow's string should NEVER touch your forearm. String-slap is a sure sign you're doing something wrong!

## Does a String Loop Change My Draw Length?

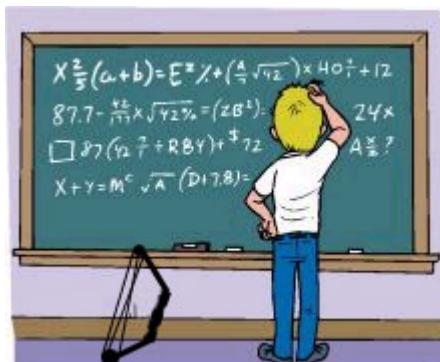


This is one of our most commonly asked questions, and it's a difficult one to answer - as it depends on your perspective. Does a string loop actually change the bow's draw length? Certainly not! The AMO/ATA specs for measuring draw length reference the actual bowstring at its nocking point - not necessarily the point of attachment from which it is drawn. So adding a string loop to a 29" bow DOES NOT make the bow a 29.5" draw length.

However, using a string loop may give you the ***perception*** that your draw length is longer. Look at the diagrams above. This is the same bow, at the same draw length, drawn back first without and then with a string loop. Notice the pink lines referencing the relative positions of the crease of his index & middle finger to his ear. Clearly you can see that when using the string loop, his hand decidedly rests further back on his jaw (perhaps as much as an inch further back). But the distance between his eye and the peep sight, as well as the as well as the contact between his nose and string both remain the same. So it's a tough call. If you judge your fit for draw length by referencing where your release hand rests on along the side of your face, then yes - a string loop will make it feel as if your draw length is about 1/2"-1"

longer. If you're a new shooter or accustomed to judging your fit for draw length by some other reference point - one not affected by a string loop - then no.

### How Precise Do I Need to Get?

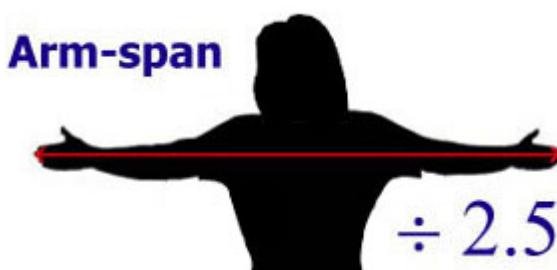


This is another commonly asked question. How close do we have to get? Within an inch? Half-inch? A quarter-inch? This issue could be debated, as there probably isn't a right and wrong answer to this question either. But again, we recommend a common sense approach. For most shooters, a  $\pm \frac{1}{2}$ " change in draw length is hardly noticed. To be realistic, half-inch sizes are probably precise enough (27½", 28", 28½", 29", 29½", etc.), particularly for the purposes of hunting and recreational archery.

However, we will be glad to adjust your new compound bow to any draw length you desire. If you would like your bow set to a very specific length, our pro-shop will gladly accommodate the request. But you should keep in mind that as your bow's string ages and stretches over time (as ALL strings do), your draw length will slightly increase - a little fraction at a time. So maintaining a razor-specific 28 & 13/16" draw length may be a frustrating endeavour.

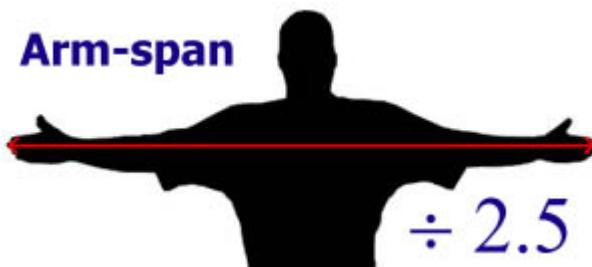
## Measuring Your Draw Length

Unlike a traditional recurve bow that can be drawn back to virtually any length, a compound bow will draw back only a specific distance before it stops (the wall). Compound bows are designed to be shot from the full-draw position. If a compound bow is set for a 29" draw length, it should always be shot from the full 29" draw position. But the bow cannot be over-drawn, say to 30" or 31", without modifying the setup on the bow. So the draw length on your compound bow must be set to match your particular size. When we setup your bow, we will adjust the bow for your precise draw length.



To measure your draw length, determine the length of your arm-span in inches. Stand with your arms out and palms facing forward. **Don't stretch when measuring.** Just stand naturally. Have someone else help you, and measure from the tip of one middle finger to the other. Then simply divide that number by 2.5. The quotient is your proper draw length (in inches) for your body size.

The majority of compound bow owners set their bows for too much draw length, which results in poor shooting form - inaccuracy - and painful string slap on the forearm. You will better enjoy - and be more successful with your new bow when it is fitted properly to your body. And REMEMBER! If in doubt, choose a little LESS draw length rather than a little more.



If you are a person of average proportions, your arm-span will be roughly equal to your height (in inches). So there is often a direct correlation between a person's height and their draw length as well. Once you have computed your draw length using the method above, you can double-check yourself by using the scale below - to see if your number is within the expected range.

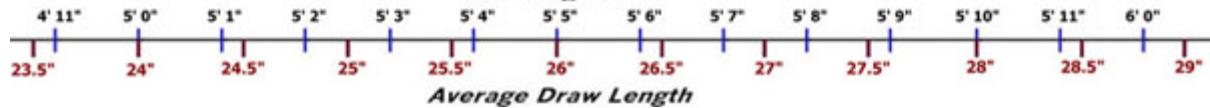
#### LONG DRAW SHOOTERS:

*Your Height vs.*



#### SHORT DRAW SHOOTERS:

*Your Height vs.*



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