

COMPOUND BOW GUIDE

BOW SIZING AND ADJUSTMENT...

Like many products, compound bows come in a variety of shapes, sizes, colours, and levels of sophistication. If you're new to the sport of archery, we will guide you through all the jargon and technical hoopla, and help you to make a better-informed choice on your new compound bow.

A LITTLE BACKGROUND INFO FIRST: Compound bows are a little different from traditional recurves and longbows. Unlike traditional bows which can be drawn back to practically any distance, compound bows are engineered to draw back only so far - and then stop. This distance is known as the bow's "draw length" - and it's controlled by the mechanical systems on the bow. The trick is ... the mechanical setting of the bow and the physical size of the shooter need to match. If your physical size requires a bow with a draw length setting of, say, 29 inches, then it can be said that "*your draw length*" is 29 inches. So both YOU and the BOW have a draw length - so to speak - to consider.

It's important to note that compound bows are designed to be shot **only** from the full-draw position (whatever that mechanical setting may be). If a compound bow is set for a 29" draw length, for example, it should always be drawn back to a full 29" and then shot from that position. You don't shoot from the middle of the powerstroke - you only shoot after the bow reaches its full draw. If you haven't shot a compound bow before, don't worry. It's much easier to "feel" than explain. You draw the bow back until you feel the mechanical stop - then you take aim - then you shoot! Easy.



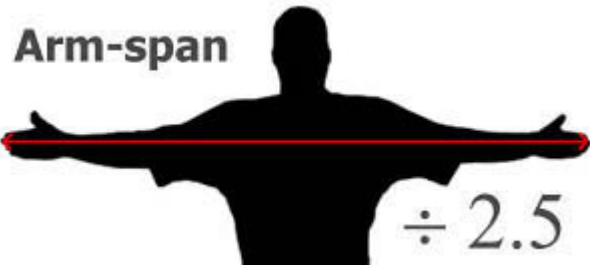
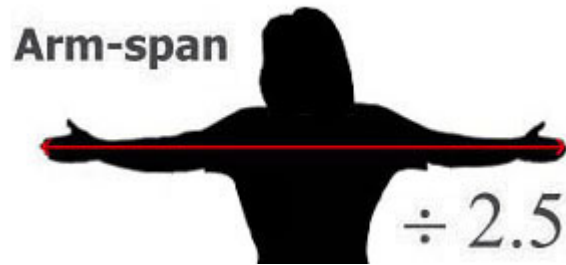
On most compound bows, the mechanical stop is quite firm. A bow that's set for 29" draw cannot be drawn back to 30" or 31" without modifying the mechanical setup on the bow. **Never attempt to forcibly overdraw a bow beyond the mechanical stop.** Draw your bow in a slow and controlled manner. Just after your bow achieves full let-off, you will feel the touchdown at "the wall." That's it. You're ready to shoot. Most modern compounds take less than 20 lb. of pressure to hold back at full draw. So if you're still grunting and straining at full draw, you're trying to forcibly overdraw the bow. So be cool. When you get to full draw, relax. You made it.

Of course, the proper draw length setting varies from shooter to shooter. Taller shooters generally need more draw length, shorter shooters less. Fortunately, most compound bows can easily be adjusted for different draw lengths. In many cases, draw length is user-adjustable with just a hex wrench - should

you decide to make changes on your own later. Again, the draw length of a compound bow can only be set within the bow's specified mechanical range. So you must choose a bow that can adjust to fit you properly: **Adjust the bow to you - not the other way around.**

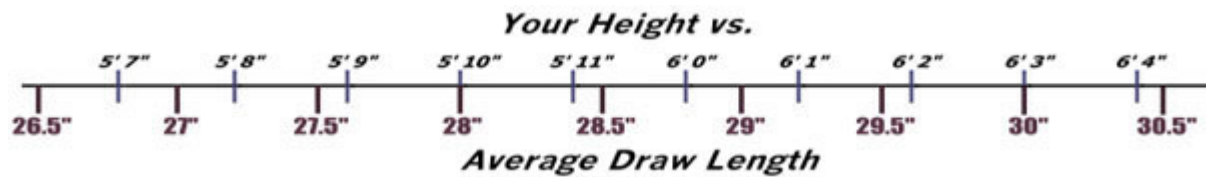
PEOPLE DRAW LENGTHS...

To measure your personal 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.

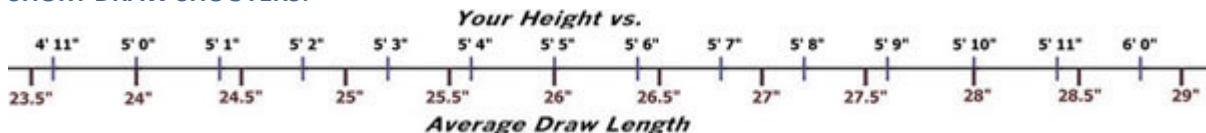


If you are a person of average proportions, your arm-span will be roughly equal to your height (in inches). So there is often a direct correlation between a person's height and their draw length. But if you are particularly lankly, stocky, etc., the arm-span/2.5 method will correct for your uniqueness and yield the most reliable estimate. Even so, 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 numbers are in the ballpark.

LONG DRAW SHOOTERS:



SHORT DRAW SHOOTERS:



If you're new to the sport, don't get too carried away dissecting yourself down to the micron. 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.

COMPOUND BOW DRAW WEIGHTS

There are several factors to consider here, beyond just brute strength. First and foremost, we strongly recommend that you choose a draw weight that is COMFORTABLE for you and suitable for your particular purpose. Particularly for the purposes of recreational archery, a bow with too much draw weight will simply make you less successful and the sport less enjoyable. A good rule-of-thumb is to choose a draw weight that requires about 75% of your "maximum" strength. If your bow is too heavy to draw back, and you can only shoot a few times before you're fatigued, then you'll be reluctant to practice and improve your game. But you also want your bow to shoot with as much speed and power as possible, so you shouldn't choose too little weight either. Again, the right balance between comfort and performance will probably be at your "75%" mark.

HEAVY DRAW WEIGHTS

We bowhunters tend to be tough-guys - and some of us just can't resist choosing heavyweight bows. Unfortunately, a heavyweight bow choice usually turns out to be a mistake. Even if you can beat-up the neighbour and you just finished your P90X DVD set, that doesn't mean you possess the back and upper-body strength to comfortably manage an 80# *Insanity CPX* or *Freak-Max*. Unless you've been shooting hundreds upon hundreds of arrows per week, and have been specifically training-up to a heavyweight bow ... don't do it. It will likely just ruin your experience.

YEAH! BUT I WANT MORE SPEED: Actually, more draw weight won't make a significant speed difference beyond 60 lb. peak. Since industry standards require at least 5 grains of arrow mass per pound of draw weight, a 60# peak bow only requires a 300 grain (5 x 60) arrow. A 70# peak bow requires a 350 grain (5 x 70) arrow, and an 80# peak bow requires a 400 grain (5 x 80) arrow. So although the heavier bow will generate more KE at the target, the increased arrow mass requirements tend to offset the potential speed gains of shooting more draw weight.

With all that said, there may be some specific applications where heavyweight bows really are called for (African Elephant, Black Rhino, Cape Buffalo, Nile Crocodile, etc.). Of course, if you're going to hunt THOSE animals with a bow, you really should be a Macho Man. The point is, for the vast majority of New Zealand bowhunting and



recreational archery applications, a heavyweight bow is completely unnecessary (commonly referred to as being "over-bowed"). Unless you have a really good reason to shoot a heavyweight bow - beyond just a barbed-wire tattoo and some intimidating facial hair - we strongly suggest you stick with the common draw weights.

ALL THINGS IN MODERATION

Not to sound hypocritical, but you may not want to choose an excessively light draw weight either (being "under-bowed"). Heavier draw weights will undoubtedly yield better kinetic energy (penetration) and quicker arrow velocities with less parabolic arc in flight (up to a point - depending on proportional arrow mass). More importantly, the Department of Conservation require a hunting bow to meet a minimum draw weight of 40# in order to be allowed to hunt on public conservation land.

If you still don't feel good about your level of bowhunting buff-ness, don't worry. The "archery muscles" used to draw a bow are primarily large muscle groups in your upper back (the same muscles you use to row a boat or pull-start a lawn mower). Most people don't specifically work to exercise these muscles. So you will probably find that once you do put them to work, your "archery muscles" will gain strength quickly and drawing your bow will become easier over time. Fortunately, most bows come with at least 10 lbs. of draw weight adjustment. So if you are a new shooter, you may wish to begin with your bow set at a lower draw weight - and gradually "crank-up" the draw weight as you become more conditioned.

GENERAL RECOMMENDATIONS

Here are some general guidelines for choosing an appropriate draw weight. Of course, each individual is different. You should apply your common sense here and interpret this chart with due respect to your own age, general physical condition, and Body Mass Index (BMI).

RECOMMENDED DRAW WEIGHT RANGE (MODERN COMPOUND BOWS)

Very Small Child (55-70 lbs.)	10-15 lbs.
Small Child (70-100 lbs.)	15-25 lbs.
Larger Child (100-130 lbs.)	25-35 lbs.
Small Frame Women (100-130 lbs.)	25-35 lbs.
Medium Frame Women (130-160 lbs.)	30-40 lbs.
Athletic Older Child (Boys 130-150 lbs.)	40-50 lbs.
Small Frame Men (120-150 lbs.)	45-55 lbs.
Large Frame Women (160+ lbs.)	45-55 lbs.
Medium Frame Men (150-180 lbs.)	55-65 lbs.
Large Frame Men (180+ lbs.)	65-75 lbs.

SPECIAL NOTE: All bows are NOT created equal regarding draw weights. High-performance compound bows with hard-cams and high IBO speeds will "feel" as if they are heavier, since the bow's powercurve is more aggressive (ramping to peak weight more quickly and letting-off later). Bows with round-wheels or soft-draw cams will similarly "feel" a little lighter, as the bow's powercurve is smoother and more gradual.