

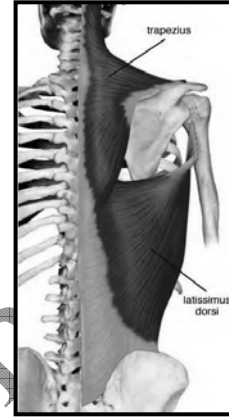
# Behind the neck Lat Pull-down?

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- One of the oldest and most misunderstood exercises in the fitness industry is the **behind the neck Lat Pull-down**. While often stated as being a risk on the neck or shoulder we need to understand the actions performed by the muscle.
- Now here is why the choice of behind the neck pull-downs becomes more of a risk vs. benefit. In **Biomechanics and Kinesiology**, resistance from behind the frontal plane (behind the neck) as commonly performed, places high stress on the shoulders anterior joint capsule. When the shoulder is abducted to 90° and the humerus is externally rotated this is known as the **closed-packed position**. **SEE PICTURE ABOVE!**
- The **closed-packed position** defined is when the joint surfaces are maximally fitting and the capsule and many of the ligaments are inflexible. In this position the joint surfaces are compressed and the joint possesses its greatest stability but least amount of mobility. So to picture this in relative terms, hold a towel at both ends and twist it in opposite directions and notice how as the towel twists your hands move closer together. The joint is compressed by virtue of the fact that the capsule and ligaments are spiralized and tense. In this situation the surface cannot be separated by distractive force, but the position does subject the joint to possible damage.
- It is very important to understand that it is not the position that is dangerous as much as the direction and amount of external force applied to the joint/limb that will determine the level of risk. To simply make this less of a risk on joint integrity we can simply pull the bar to the front of our body (**loose-packed position**) and decrease the risk. The Latissimus muscle is utilized and strengthened in both positions but now understanding the decision of direction will improve the chances of fewer injuries in the future.
- And the greatest **MYTH** about Lat Pull-downs is choosing the width position grips. Choosing a wider or narrower position of the bar does **NOT** determine the “thickness” or “shape” of the muscle. The wider the position of the bar (**pictured above**) will actually *lessen the R.O.M.* and put great forces in the Shoulder Joint.