

# Superficial Muscles of The Back Part I

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## Abstract

The following is an in depth, extremely thought provoking article on superficial muscles of the back. We will cover action, origin, insertion, muscle fiber ratio, and strategies for not simply extreme, but optimally insane growth.

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## Innervation and Purpose of The Superficial Back Muscles

There are two distinct classes of muscle groups residing in your dorsal complex. The first are superficial or migratory and the second are deep. The word superficial refers to something being closer to the surface, or skin area then another aspect. In this case the reference is to muscles. The superficial groups are literally closer to the surface, then their deep counter parts.

That is the first distinction made between classes. The second is that the superficial muscles are also referred to as migratory aspects of the back. The word migrate of course refers to an object moving from its place of origin to a destination foreign to it( i.e. birds migrating in the winter ). Why is this applied to these muscles?

Ahhh...that my friends is of vital importance to understanding both the innervation and function of these contractile protein groups. You see, in Utero, which is where you developed before being born, several muscles developed and grew in your shoulder region. However, as you continued to grow, they literally changed destinations, in that they moved to the posterior aspect of your body.

Here is the catch. They began in the shoulder region and were meant to move the upper extremities, such as the humerus( upper arm ) and shoulder joint. When they migrated, they only changed positions, but...they still maintained their functions! And to compound this, they dragged the nerves innervating them to the rear as well! This means that your superficial back muscles, are really muscles of the appendicular skeleton and act as such. They are innervated by ventral primary rami of the brachial plexus( see an overview of the nervous system for clarification. ) Where as deep muscles are innervated completely opposite to this( a point discussed further in part 3 of this series ).

So why did they migrate you ask? They did so to stabilize many of the bones held back there. For example, the scapula relies on muscles to hold it to the axial skeleton. No ligaments do this, only superficial muscles. Indeed, the instructions in your DNA code are full of incredible designs. Each, with a purpose beyond perfection!

## Latissimus Dorsi



1. Aesthetics - Width...I would say that this is the aspect most sought after from a bodybuilders perspective. The type of width that causes a person to walk sideways through doorways. Indeed, the latissimus dorsi is more prominent in accomplishing this, than any other muscle in the body.

What is accomplished in the process:

A. The wider your back is, the smaller your waist appears. This is called the V-Taper. A wide sweeping **V**, condensing into a tiny apex!

B. Every single pose performed in this sport relies on the width of this muscle. Watch Shawn Ray perform a double biceps pose. As his arms raise, wings literally appear to arise, as if he were unfolding them into an ever growing spiral outwards. Additionally I would say that the lat spread is perhaps the most vital pose in all of bodybuilding. The further you spread, the greater your chances of victory will be, period! Many feel that this is an injustice, however, few will question that it is the most dramatic pose in all of bodybuilding.

C. Thirdly, this muscle continues all the way down the vertebral column, which means that it can potentially provide an endless streamline of mass. Extreme lower lat development is vital for all twisting poses, because they provide extreme freaky definition on the lower sides of your back. Almost like razor blades ready to shred the competition!

## 2. An Anatomical & Physiological Breakdown of The Latissimus Dorsi

Charles Glass is in my opinion, the greatest **bodybuilding** trainer to ever live. No one has earned more respect in the iron arena then this man. He has bred champion after champion. I will give you an illustration of his work. Last year Charles took Gunther Shrimp as his client. Just last week he did the impossible and beat the reigning Mr. Olympia, Ronnie Coleman in a contest! Sky is now the Limit! Here is a quote from Glass, when preparing Cormier for the Olympia a few years ago:

" What we are trying to do is fill in all the little holes in Chris's back. As this is such a complex area. We are also going to bring his lats, allot, lot lower. You'll see a much improved back on Chris this year, I guarantee it. "

Victor Munez is also in a class all by himself, many consider him to be the best of the best. His specialty is the back complex, and Oval Burke is a perfect example of what he can do with this area. When I have spoken with Mr. Munez he has stated a very similar point in bringing the lats lower, and also widening them.

Dr. Michael Yessis, an author, trainer to countless champions in the field of athletics, and one of the most respected authorities in exercise physiology has this to say about the subject:

" Because The entire Lattissimus dorsi is not involved in any one exercise, it is important that you do several variants to develop the muscle fully...Development of the upper part will give you wings, while development of the lower part will give you great mass down the sides of your back. "

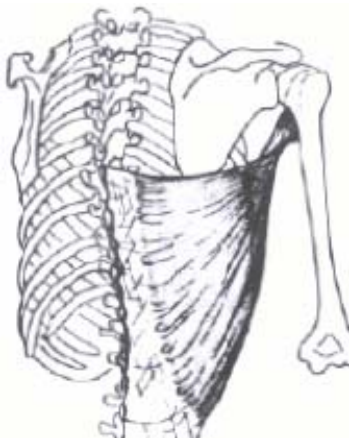
The question is, why are these Geniuses separating this muscle into two regions? The answer is based on exactly why anatomy and physiology are so closely interconnected. You see, Anatomists painstakingly study the direction that fibers run along a muscle group. Ultimately, the direction they travel in, is the direction they will pull the bone they insert on towards. It is really quite straightforward. They pull insertion points toward points of origin. The muscle in question here however has several origins and the fibers run differently throughout the muscle, thus the latissimus can be functionally separated along its axis.

I will allow the greatest Anatomist science has ever known describe to you how the fibers of the lats run throughout the length of the muscle:

" from this extensive origin the fibers pass in different directions, the upper ones horizontally, and the lower vertically upwards ( 2 ). " Dr. Henry Grey – The Legend

The latissimus inserts on the humerus. If fibers run vertically upwards, when they contract they will extend the humerus( upper arm ). Which is to say that they pull the arm downwards and backwards. A hammering motion would replicate the need to extend. The horizontal( meaning side to side ) fibers however, when contracted will pull the humerus towards the midline of the body. In other words this muscle will move your arms to your sides. This is called adduction, or retraction.

### 3. Origin and Insertion Points



O: The origin of this muscle is extensive! Again, pointing to its difference in functionality. To make it simpler however I will name all origin points and then give an overview. It originates on the spinous processes of the lower thoracic vertebrae, and on all of the lumbar vertebra. Which means that it originates, midway on the

vertebrae that are rib level( this is where the thoracic region of the vertebral column reside ), and all along the lower back region( remember spinous processes are posterior and they are the aspect that can often be seen through a persons skin ). It also originates on the sacrum. The top of the sacrum is essentially where your lower back ends. In addition it originates on the crest of the illium, which essentially means the rear side of your hip bones, where your glutes begin and finally on the lower three ribs.

Overview – Originates along the lower half and upper sides of the back, so as to form a V.

I: It inserts on the bicipital groove of the humerus. This is the anterior or front view of the upper arm bone. The bicipital groove, is again, a groove made by the long head of the biceps tendon.

Overview: Inserts on the top of the humerus, so as to form part of the arm pit.

### **Actions Discussed**

1. A. Adduction is a state of mind. When training back, that is the entire key. To focus in on the area being trained, and the movement used to train it. I cannot stress this enough. Again, this means to literally bring your upper arm to your sides. That is the entire goal within this action, and no other movement will add width to your lats, like this one can. Within back training, the key is of course to bring your humerus to your sides while pulling an object, as that is what places maximum tension on the target muscle group.

B. The greatest compound movement of choice here, would then be wide grip pull-ups and wide grip pull downs of varying degrees. Furthermore you will want to have your palms facing away from you( pronated ). Practice performing the movement in mid-air without actually doing an exercise. Begin by placing your hands wide and straight overhead as if reaching for the sky. Your humerus should be perpendicular to the ground. From here lower your arms out to the sides in an arching motion until the upper arm is parallel to the ground. This is the key range you want to be in. Now, focus on touching your elbow to your rib cage. The movement must be performed in a frontal plane. I like to imagine that there is a barrier in front and in back of me, and all I can do is move my arms within a jumping jacks style range of motion. Which means they should neither move forwards, or backwards( of course your elbows will bend, unlike jumping jacks, but the humerus will do a very similar movement ).

Again, your goal from the very top of the exercise is to bring the humerus to your sides. Your upper lat fibers run side to side, and this is the direction that your movement should be in!

C. When it comes to varying grips. I utilize shoulder width apart pull-ups, and work my way out to as wide as possible. The angles you use should be endless. However, I do not perform behind the neck pull downs or pull-ups, when focusing on lats. That will be introduced later in the article.

D. Utilize pull-ups supersetted with pull downs. Adduction is a difficult movement to focus on. After a straining set of pull-ups, utilize the constant tension of pull downs to focus wholly on the intended movement.

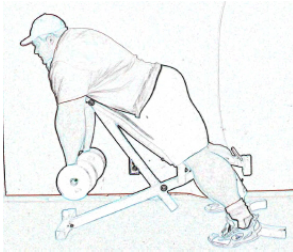
E. Flexor-less Adduction – This is essentially a pullover performed from the side. The goal is to adduct the humerus, without the support of the elbow flexors( biceps, brachialis etc. ). Go to a high pulley attachment, and set up a one arm handle. Stand at the side of it so that your body is parallel with the machine. From here reach up and grasp the handle. You should feel a tug on your lats. Now simply pull the attachment down so as to bring your arm being used to your sides.

This can be adapted to a cable cross over machine, or with a dumbbell. When using a dumbbell simply lie on your side. The arm that is superior will hold the dumbbell. The difference is in the tension. Therefore you will only lift the dumbbell on here so that it is perpendicular to the ground, before re-lowering it.

G. Pre-fatigue – The above movement can be utilized as a pre-fatigue method. I prefer a double drop set with any of the variations above. With reps being 12-15.

2. The second movement discussed was extension. If you place your arms at your sides, and then move them straight backwards, you have extended the humerus, and targeted the lower lats.

A. The purest form of extension, comes when utilizing the striation row. You begin by lying face forward on an incline bench like so.



The difference however between normal rows, is that you will purely extend your arms backwards without bending your elbows! I call them striation rows, or flexor-less rows, because you have eliminated the biceps from supporting the movement. I suggest using these from 75 degrees all the way to a flat bench angle. Additionally you can set up a low cable pulley in front of an incline bench, and grasp the bar with an overhand grip. From here, row the cable handle back, without bending your elbows. Essentially you are performing pure extension here placed under resistance.

B. Reverse grip everything – When performing barbell rows, different grips will utilize different aspects of the back complex. The goal here is to work the lats. By reversing your grip, you will literally work in a different plane. Wide grip palms overhand rows, are mainly for retracting the scapula. This is not effective for major lat development. However, if you reverse your grip( underhand supinated grip ), you end out extending the humerus directly backwards. This same concept can be applied to every rowing movement known to man! I suggest underhand, and close grip on each of them. This is the best way to line up **origin and insertion points**.

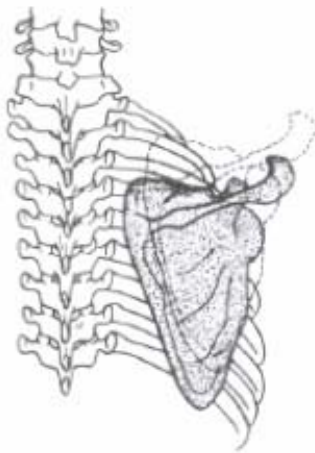
C. With adduction while performing pull-ups, you spread your arms out wide, and pronate the palms. Here you will supinate them( they should face you ) and bring your arms close together. By utilizing this grip, you emphasize extension of the humerus! Which is again the desired movement. During the chinup motion, focus on extending your arm downwards and backwards! This is absolutely essential!

D. Pullovers and straight arm pull downs - Again, implement every form of pullover possible and implement straight arm pulldowns( both found in exercise section of the site and I would also suggest reading *The Anatomy of A Pullover* by Adam Knowlden ). These perfectly line up origin and insertion points, which again is the key to maximum development. I am also a massive believer in the pullover machine, as was Dorian Yates.

E. One arm Rows – In order to ensure equal development on both sides of the back, implement one arm rows. The key is to extend the elbow as far back, in a straight line as is possible! No exercise blasts the lats through extension like this one can! I also am a huge believer in one arm long bar rows( [place hyperlink here](#) ) Again focus on extension. Two arm long bar rows are also excellent for the lower lats. Get your elbows back as far as possible and contract the fibers till they are exhausted!

3. Depression of Scapula – The wings also depress the scapula. This requires one to tap into what I call reverse / Hatfield shrugs. I say Hatfield, because he( Dr. Squat ) is one of the people to make this movement famous. He has gone so far as to say, that this is the ultimate lat exercise of all time. Simply go to a pull down machine, allow the weight to tug on you, as you utilize varying grips( from wide to close ) and literally shrug the bar downwards. This will place continual contractions along the latissimus region. Additionally you can lift insanely heavy! Which is similar to normal shrugs, as your poundages will reach new limits. Dr. Squat also believes this will allow you to work heavier on exercises such as pull-ups and pull downs. I would agree with him. This exercise can also be performed on the actual pull-up bar. Additionally it can be utilized on a low cable pulley.

Simply lie face forward on the ground, with your head facing the low cable pulley. From here, reach out and grasp the bar, and shrug straight back wards. Again, this movement depresses the scapula like so.



The scapula moves downwards

4. Filling out The Insertion Points - If your goal is to add direct mass to the outer lats, you will want to add sarcomeres in series. By adding sarcomere units, you will thicken the areas where the muscle originates along the sides of the back. If you recall from the anatomy section, by emphasizing the stretching and eccentric portion of an exercise this specific adaptation will take place( 3, 4 ). You can read more on this by examining the article entitled Physiological Aspects of Physique Building Part 2 in our anatomy section.

The two best ways of accomplishing this, are heavy negative pull-ups, forced negatives of all kinds, and one and a half reps on all exercises, with the half rep being on the lower portion of the exercise, so as to emphasize the stretch.

5. We have just discussed the importance of pull-ups for both extension of the humerus and adduction. I would like to give you some hints to increasing the effectiveness of this exercise:

A. One piece of advice made famous by the Austrian Oak was that he always performed pull-ups from a dead hang. He was a huge believer in a full range of motion and the stretch. This hang, will also increase flexibility and stretch the tight binding fascia surrounding the muscle group.

B. Set Pull-up Theorem – I believe that it is impossible to get a fully developed back without the use of this movement. You may be performing them because you are not be able to get enough of them. My advice would then be to use forced negatives, assisted reps, and the following method.

This is one of the oldest theorems and has been used decade after decade. It is a set state. In essence you choose a particular amount of reps and perform as many sets as is needed to reach that goal. Lets say you chose 50 total repetitions. Perhaps set one you could get 20 pullups, then set two you could get 15 and so on and so forth until you reached 50 total reps. I would wager to say, that this is perhaps the best " all around method " ever invented for building the lats. It may take you 10 sets to get 50, the point is, to set a limit, and reach it! Consequently I have heard legends of the animals of yester yore, taking this theorem to all new levels of insanity! Athletes have set the mark up to 200, and some higher than this! My suggestion is to set a mark that seems impossible to reach, and just freaking do it, no matter how many sets it takes!

C. Progressive Pull-up Blitz – Without going in depth, the wider the pullup, the more difficult the exercise is to perform. This blitz takes full advantage of this. You would begin with super wide grip pull-ups, and I mean as far as you can spread your arms out. The key is to utilize 5 positions on the Bar. If the bar looked like the illustration below, then the marks on that bar would give an example of what I am referring to.

Start at position one, and rep out to failure. You will then do one of two things.

Choice A. Is to move to position two and rep out to failure again, followed by position three, four and five.

Choice B – Here you would utilize the rest pause method of training. In essence, you would fail at position one, and rest pause for 10-15 seconds, then migrate to position

two, followed by another rest pause, until all positions have been utilized.

The completion of these five positions constitutes one total cycle. You may repeat if needed.

This can be used with adduction or extension style pull-ups.

D. To work the full sweep of the lats, I suggest performing adduction style pull-ups, immediately supersetted with close grip extension style chins. The burn will be off the charts, as will the gains!

### **Muscle Fiber Ratios of The Lattisimus Dorsi**

A. Interestingly enough, this muscle shows more slow than fast twitch fibers. However, not by much. Here are the ratios: 50.5% type I slow twitch fibers, and 49.5% type II fast fibers ( 5, 6 ). My suggestion is to work in several different rep ranges. If you only work heavy, you will virtually eliminate half of your muscle fibers growth potential! I suggest you focus 70 to 75 percent of your efforts working your fast twitch fibers and 25 to 30 percent of your efforts on super high rep, constant tension slow twitch fiber work. [Click Here](#) to read about muscle fibers.

B. In addition to this, the muscle fiber ratio within the lattisimus dorsi is varied. Studies show that there is a higher percentage of slow twitch fibers in the superior aspect( upper ) of the muscle, then in the inferior( lower ) aspect ( 7 )

Which would point to a slightly higher rep range required for the upper fibers, as compared to the lower.

### **Conclusion**

This concludes part one of our superficial muscle series. For part two, [click here](#).

Yours In Sport

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### **References**

1. Johnson, M.A., Polgar, J., Weightman, D., Appleton, D. Data on the distribution of fibre types in thirty-six human muscles. An autopsy study. *J. Neurol. Sci.* 18:111-129, 1973.
2. Matthews, P.B.C. *Mammalian Muscle Receptors and their Central Actions*. Williams & Wilkins, Baltimore. 1972. 630 pp.
3. Sola, O.M., L.C. Haines, B.A. Kakulas, T. Ivey, D.H. Dillard, R. Thomas, Y. Shoji, Y. Fujimura, and L. Dahm. Comparative anatomy and histochemistry of human and canine latissimus dorsi muscle. *J. Heart Transplant.* 9:151–159. 1990.

4. Greys Anatomy - By Dr. Henry Grey

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