

I Want a Pony!

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For www.EliteFTS.com

Has your son or daughter ever asked you this request? Well, let me give you a little insight into what my father would have said to me at such an impressionable age. *“Get off your ass, walk down town, get a job, rent a stable, buy some hay, buy a pitchfork to clean up tons of sh*t and buy yourself a pony!”* I guess my dad never met Dr. Phil. But let’s think about my innocent request? Yes, maybe my dad was a little hasty; maybe he was a little irrational with his response. How did he know I was talking about a horse and not talking about an easy, inexpensive way to improve my deadlift, squat, bench or any specific grip strength related to athletic performance? Of course, I’m talking about a pony clamp.

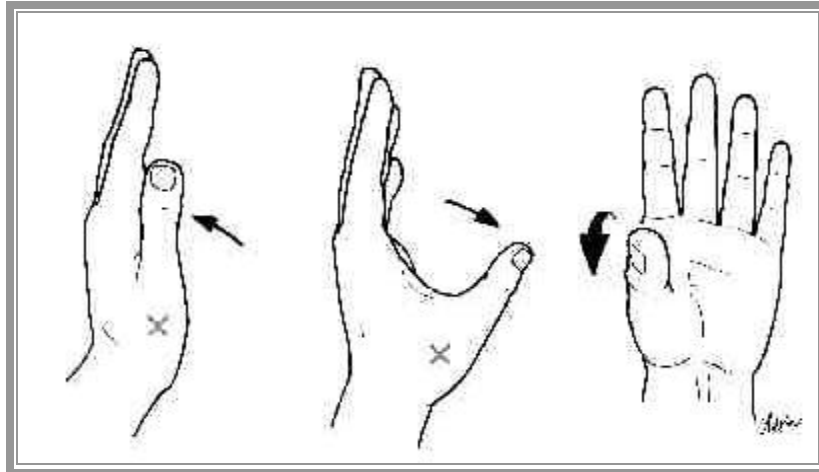
In this article, I will discuss how to take a cheap pony clamp and integrate it into your grip specific training and how it will carry over to whatever is your strength or sport endeavor. I will also add some excerpts from some of my previous articles around digit specific training and rehabilitation.

The Pony

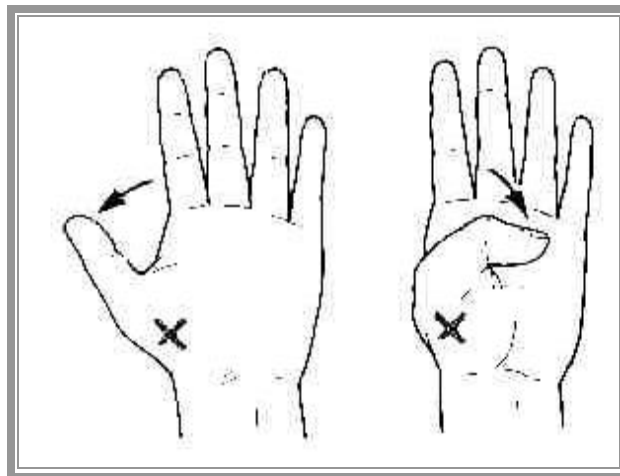
The pony clamp is a simple implement that can be picked up at any hardware or lumber store for 5 or 10 bucks. There are many different styles, but definitely pick up a metal pony clamp. It will be more functional for our discussions.



So why would developing our thumb improve our grip strength and why would improving grip strength improve our performance in sport? The first question, biomechanically, is pretty complex. If we look at the thumb structure, we will see that there are 3 joints in the thumb; basal Carpometacarpal Joint (CMC), Metacarpophalangeal Joint (MCP) and the Interphalangeal Joint (IP). The thumb attaches at the first CMC joint, at a right angle to the other 4 digits of the hand. Because of this orientation, the thumb starts in a non-advantageous position to exert force. If there is laxity in the CMC joint capsule it will also directly affect your ability to exert maximum grasping force on an object. The movements of the CMC joint include:

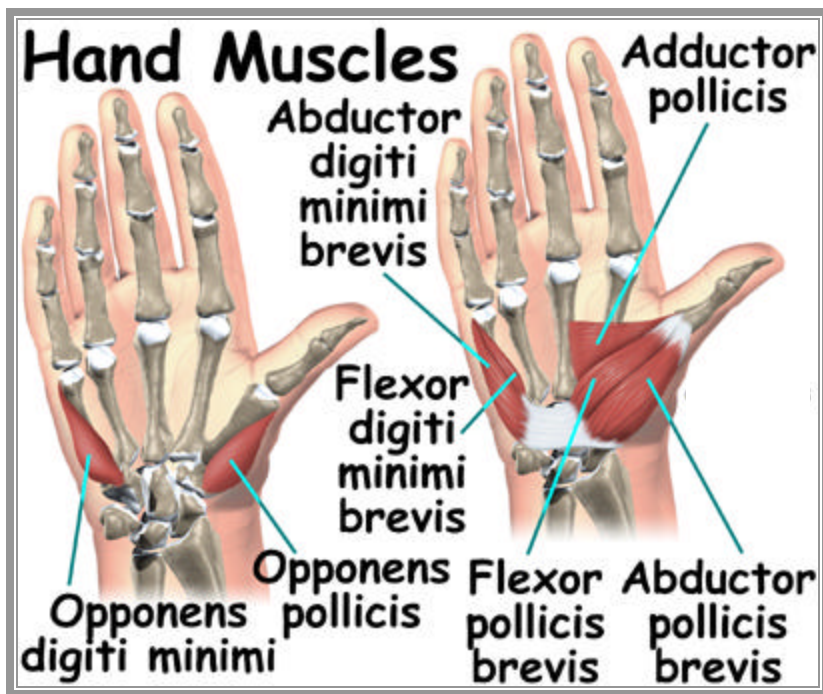


Palmar Abduction – abduction / adduction

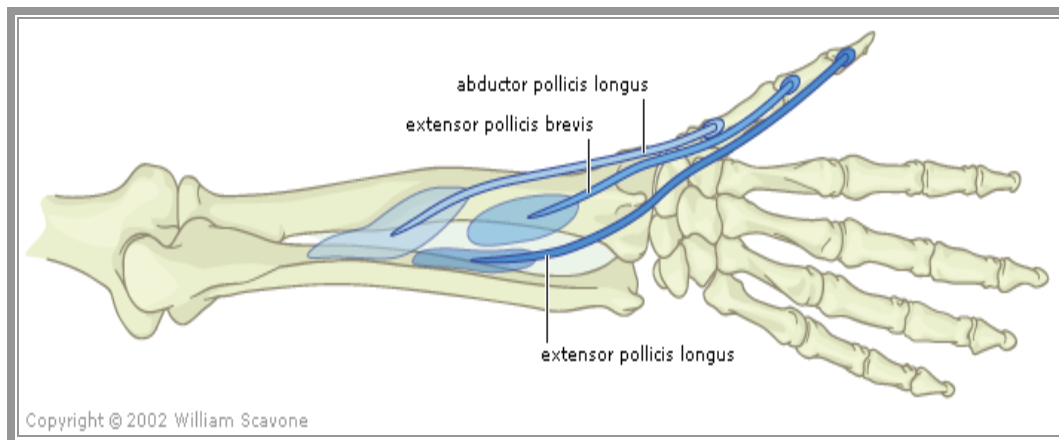


Radial Abduction – Flexion / Extension

The intrinsic muscles that are responsible for all of the articulations of the thumb are the thenar muscles (abductor pollicis brevis, flexor pollicis brevis and the opponens pollicis) and the adductor pollicis. The musculature works together to move the thumb into a position to grasp and / or extend.



As a final note, we know that if a muscle crosses over a joint it affects that joint. Because the abductor pollicis longus (APL) and the extensor pollicis brevis (EPB) cross the wrist, they aid in the stability of the wrist. So by inference we can see that we should not only strengthen the thumb with direct work, but also strengthen the supporting lower arm musculature for the greatest results and ultimate health and longevity.



So let's get into the fun stuff. In my previous article for Elite FTS, [Grip Training for Your Deadlift](#), I discussed increasing your grip strength by increasing the focus on your support and pinch strength. In this current article we will start to build upon the foundation discussed in that original article - as it pertains to pinch. The thumb needs specific development to increase its potential to dynamically / statically grasp larger, heavier or sport specific objects.



Quick Note:

What is the weakest part of your pinch strength? It is the flexion of the thumb, parallel to the plane of the palm and toward the midline of the palm. If you try to grasp and / or pickup something with just your thumb and your pinky – you will see immediately it is a definite weak point. To eliminate this weakness, you should not only directly develop the thumb, but also learn how to “flex your palm” or “flex across your palm”. The key to increasing your grip strength is; one part development of a weakness and one part neurological training.

Thumb Pinches

So this is where the pony clamp comes into the picture. You will be able to isolate the thumb and perform many different variations with the pony clamp. The thumb pinch can be done for multiple sets and multiple reps or multiple singles held for time (one handed or two handed) – and the key is the get a full range of motion. Since your deadlift, bench and squat only take a few seconds, we definitely don't need to be specific to a typical needs analysis. We want to create a foundation of hand strength and increase your ability to hold your respective sport's implements. How do you perform this exercise? Hold the pony clamp between your thumb, pointer and middle finger and squeeze as hard as you can. This can be done using one hand or with two hands squeezing the clamp between both thumbs and just the pointer finger on each hand. One game that you can do; close the pony clamp with a thumb pinch (use your other hand if needed to get it closed) and have your training partner slowly close the opened end of the pony clamp. Overload that negative! Hit 5 x 5 with this movement and you won't be hitchhiking anytime soon – trust me...never did get to Las Vegas after that one workout.



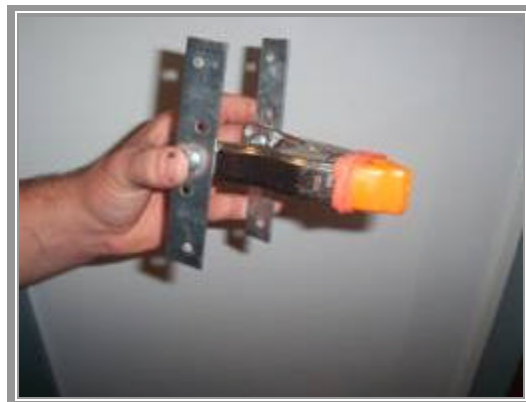
Thumb Band Pinches

As you become stronger, you can add resistance to the pony clamp with simple rubber bands. You can put 5, 10, 15 bands onto the clamp until you get to your desired strength. This is simple and quick and you will always be able to increase the strength or resistance of the device. The technique is the same as the thumb pinches.



ThumbFlexor Pinches

Another quick modification you can do is to take 2 pieces of 1/8" x 1" x 5" steel and bolt them onto the handles of the pony clamp. You will need a drill and 2 small bolts. Drill the steel in the center and if you pull off the rubber ends on the pony clamp, there will usually be a center hole in each handle. If not, drill the hole yourself. This modification allows you to utilize all of your fingers opposing your thumb. It is a great variation and teaches you how to "flex your palm". Really concentrate on learning this technique incorporating the whole hand.



Thumb Flexor Band Pinches

Here you can use rubber bands on the modified pony clamp. Developing the hand where the fingers are opposing the thumb will benefit your athletes - independent of their sport. We have said many times, Power is developed from the ground up, from the core out and from the hands in. If your hands are weak, that is a break in the chain and you will never realize your greatest power potential. You won't make that tackle and you won't catch that ball. "Flexing your palm" will teach you how to increase hand strength across the weakest part of your hand by engaging your weakest fingers; your ring finger and pinky finger.



Palm Flexor Band Pinches

Just another variation – you will see you have the greatest strength with this movement. Load up on the bands.



You want to turn your grip into a vise? Try utilizing the technique described in my [Reverse Hook Grip article](#). Basically, it is a double overhanded (pronated) grip that you should use for your deadlift, shrug, cleans, high pulls, ect...work – until you can't hold

onto the bar anymore. As your grip starts to fail, then switch to your normal reverse grip or double overhanded (pronated) hook grip. For the reverse hook grip, your thumb becomes an anchor that you plant on top of your pointer and/or middle finger when you have a double overhanded (pronated) grip. You'll typically start failing anywhere from 50% - 80% of your 1RM – it is very humbling. But, once again, it teaches you how to use your thumb and palm to increase your grip immediately 5-10% after just a few workouts. As you use this technique more and more, your double overhand (pronated) grip strength will start to approach your normal reverse or hook grip strength.

2 Hand Plate Pinches




Another exercise you can do is a 2 hand plate pinch. I first talked about this technique in my Elite FTS article [Grip Training for your Deadlift](#). This exercise, without a doubt, has a huge carryover to your overall hand strength development. The setup will use 2 – 45 lb plates against each other with the smooth side out. Run a 2" PVC or metal pipe through the holes and you're all set. As you get stronger, add weight to the outside and secure it with 2 wrist wraps. Of course there is a 1 hand variation that is done with multiple plates, block weights, hubs, pinch blocks, 2x4's, 4x4's and Blobs – but we'll table this for future articles.

The technique is; straddle the implement centered across your feet, plant your thumb onto the plates and bury it to your palm, stretch your fingers across the span of the 45 lb plates and down the outside of the opposite plate, flex your upper back and finally “flex your palm” and flex your wrist as hard as you can and stand up with the weight. You can hold for time or hit multiple singles / reps. Athletic tape can be applied as a training aid to increase friction or save your skin from its eventual tearing. Deloading is also an advanced technique that will also be discussed in future articles.



Rehabilitation

“...the ratio of maximum flexion strength to maximum extension strength at the MCP joints is 3:1” (Strizak et al 1983). For longevity, hand health, alignment of carpal bones and optimal strength potential you must create a balance by working opposing muscle groups or planes of movement of the hand.

2 Hand Pinch		Band Finger Extension
Thumb Pinch		Extensor Bucket Finger Extension
Palm Pinch		Wrist Extension, Wrist Flexion, Reverse Wrist Curls (static stabilization of Wrist)

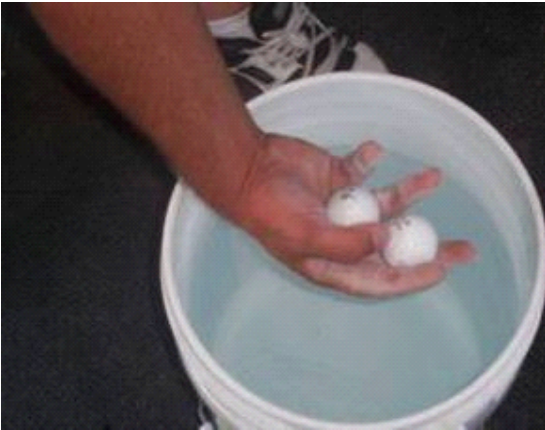
Here is an excerpt for some hot/cold therapy dexterity ball rotations and extensor bucket work from my [ArmWrestling - Pulling Big III](#) article series.

Hand Considerations

Contrast Baths with Golf Ball Rotations

Note: Can also be done with metal dexterity balls, steel shot and shot puts.

The contrast of hot-cold baths creates a pumping of the blood in and out of the submerged body part(s). Blood vessels dilate in the heat and constrict in the cold. The cold component: the immediate response is vasoconstriction (decreased size) of the blood vessels in the skin and reduction of blood flow which will assist in helping to decrease the swelling, inflammation and pain. The hot component: heating an area is also associated with an increased blood flow to the area. With increased blood in the injured area, nutrients are delivered and wastes are carried away from the area more effectively and have also been shown to decrease pain and to help reduce muscle spasms. Contrast baths are very effective in treating carpal tunnel syndromes and hand / forearm tendonitis. Get yourself 2 – 5 gallons buckets. Fill the first bucket with $\frac{3}{4}$ full of water and dump massive quantities of ice in it. The other bucket you want to fill about $\frac{1}{2}$ full with water and then fill it the rest of the way with boiling water from the stove. Take your golf balls and submerge your hand in the hot water bucket and rotate the golf balls clockwise (CW) and counter clockwise (CCW). Do this for about 1 minute then switch to the ice bucket and repeat the golf ball rotations. Go back and forth between buckets for approximately 15 minutes. Keep your hand in each bucket for about 30 seconds each. We will discuss more advanced techniques in our upcoming Elbow Rehab e-Book on the [DieselCrew.com](#) site.



EXTENSOR BUCKET:

A healthy hand - with balanced opposing musculature will allow for maximum power potential of the flexors of the hand because you will eliminate imbalances and decrease the potential for overuse injury or inflammation. Development of the hand extensors will maintain the integrity and alignment of the carpal bones, as well. To “build” an extensor bucket or jar - grab a large jar or plastic container that has an opening approximately 4” diameter - fill it with bent nails, rocks, broken teeth – anything that will add weight. Insert your hand up to the first or second knuckles and extend your fingers against the sides of the jar. Lift for several sets and hold for time – before, during or after your normal workouts.



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Websites

<http://www.dartmouth.edu/~anatomy/wrist-hand/muscles/extrinsic6.html>

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Leaders in Grip Strength

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