

# TRAINING

I have been using the Jump Stretch Rubber Bands for almost 2 years now. My training partners and I are still experimenting with them, but we have developed some information that we thought we would pass along.

First of all, I must give credit where credit is due. I have discussed using a force plate to measure the resistance that the rubber bands create, but not having taken Physics since 1978 I wasn't sure where to begin. Three of my training partners, Steve Spinelli, Steve Petrencek and Frank Palmer came up with a plan that I do believe actually works. Steve S. brought in a carjack and he borrowed a digital scale. As you can see from Picture 1, while the bands were hooked up to the bar, they jacked up the digital scale to mimic different

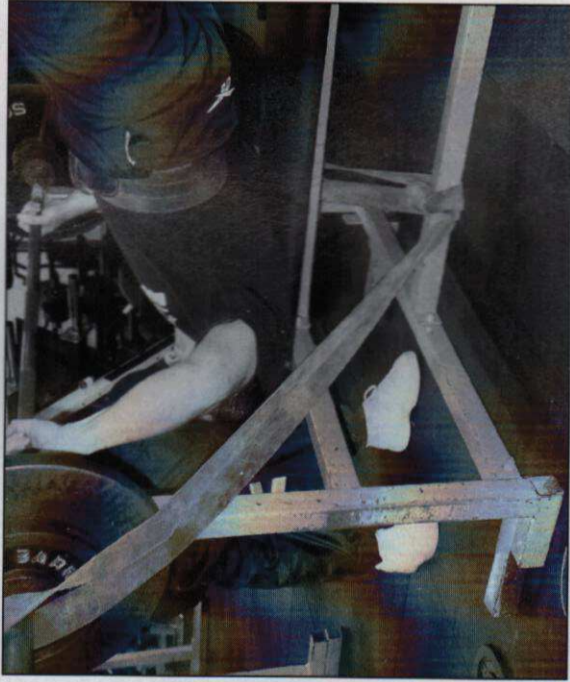
the two bands together. Hook one end of the bands over the end of the bar. Take the bands under the bench with the knot directly under the center of the bottom support. Hook the other end of the band around the other side of the bar. To do a double loop, have someone pull on the band



Picture 1: Steve Spinelli (left) & Steve Petrencek (right). (Larry Miller).

can add a third loop to the bands. Adding the third loop will add an additional 30 lbs. of tension to the bands above the double loop.

Hopefully everyone is following me. Let's use an example. You place 135 lbs. on the bar and you have hooked two blue bands tied together under the bench. At your chest, the weight on the bar is now 155 lbs. If you push the bar an additional 5 inches (mid range), the weight now



Picture 3: Steve Spinelli showing how to properly attach the bands.

becomes 175 lbs. Go another 5 inches to lockout and the weight is now 195 lbs. This set up allows for an additional 60 lbs (195 - 135 lbs.) of band tension above what you originally had on the bar at lockout. If you double loop the bands, you now have approximately 175 lbs. of tension at your chest, 195 lbs. at your mid range and 215 lbs. at lockout. If you triple loop the bands, you have 205 at your chest, 225 at mid range and 250 at lockout. The green bands add tensions of 150 lbs., 165 lbs. and 180 lbs. to the bar. If you add a green to a blue, the tensions are additive. For instance at your chest a blue band added 20 lbs and the green added 15 lbs. When we put the two on together, we had a total of 35 lbs of tension.



Picture 2: Frank Palmer spotting Larry Miller (notice support bar & 2 different rack heights). (Photograph provided courtesy of L. Miller).

positions on the bench including the tension at the chest (11 inches from the top of the pad), mid-point (16 inches from the pad) and lock-out (21 inches from the pad). I will present the information as we recorded it and then in layman's terms (which is about as detailed as I am prepared to go) explain what it means. The pictures will demonstrate what we did.

First of all we need to discuss how to hook the bands on to the bench. You should look for 2 items on your bench. First of all, you should have a support bar underneath the bench that is an inch or two above the floor (Picture 2). This will allow you to stretch the bands for added resistance and allow you to center the bands easily. It is also a plus to have a second set of racks on the bench. This will allow you to add extra loops to the bar and work the bottom half of the bench off your chest. If you don't have a bench as described above you will have to improvise. Just remember, tensions will change. The first thing you need to do is to tie

sides. If you try to tie the bands, you inevitably will not have the sides even and it may cause you to pull to one side or the other. With heavy weights, you might place too much stress on your body. We are using 2 sets of blue bands and we double loop them both on the end of the bar from the top of the power rack. Setting the bands in this manner allows you to lock out heavy weights. For instance, with 315 lbs on the bar, the weight on the chest is 135 lbs. The bands support the bar with about 180 lbs of tension. At mid range the weight is 190 lbs and at lockout, the weight is 250 lbs. What we are able to accomplish within the power rack is to load the bar to 550 lbs or so. Although we didn't measure the tension at the chest, it is probably around 275 lbs and we are probably locking out 490 lbs or so.

For those of you who wear bench shirts, the mechanics of the shirt provides you with help off the chest and as you get closer to lock out, the shirt stops working and you are on your own. The bands also create a situation whereby the resistance increases as the bar progresses towards lockout. The tension the bands supplies becomes an excellent plyometric exercise for developing explosive strength which is advantageous in all of the three powerlifts.

There are a number of additional ways to use the bands. You can hook a light pink band up for added resistance for tricep extensions or lat pull-downs (Picture 5). The personal trainers at our gym use them for additional tension when working the abs. I am sure if you want, you can stay up all night long figuring out ways to incorporate the bands into your training program. Since I haven't squatted or deadlifted in more than three years, I haven't looked into

using them for these exercises. Some lifters at the gym do use them for squatting and deadlifting and my advice is be careful and use spotters. I believe that when using the bands, it is important as you adjust to the bands and the weight on the bar, you should add resistance with the bands and drop the weight on the bar. Our "Jump Stretch Rubber bands" have been subjected to a great deal of tension and are still holding up quite well. For benching, I recommend using the Blue bands if you are a 300 lb. bench. The green bands are good if you are in the 250-300 lb. range and the pink bands if you are below 250 lbs.

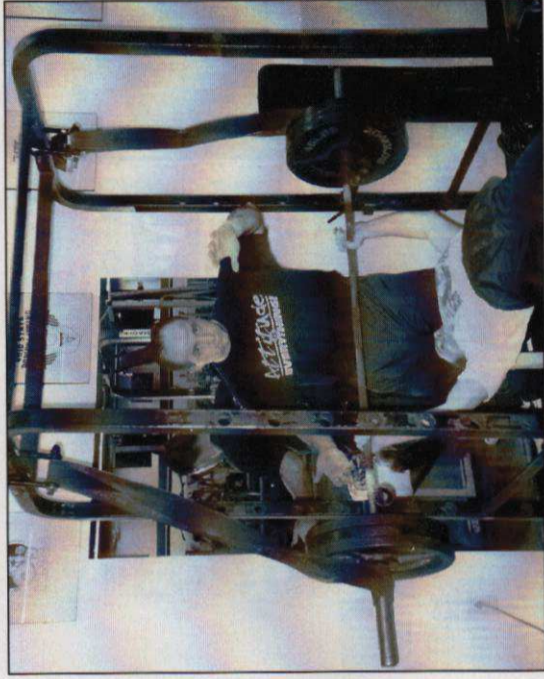
Dick (The Rubber Band Man) Hartzell has many uses for his rubber bands. They are used by numerous professional sports teams, i.e. Cleveland Indians and Cavaliers, New York Yankees, Atlanta Braves, Dallas Cowboys, Florida Marlins, Denver Broncos, Charlotte Hornets and many more. Most professional athletes use the bands for stretching. Personally, I don't know of anyone as flexible as Dick. Although not a Physical Therapist, I have sent a number of people to Dick who have already been to their share of therapists. In every instance, Dick has helped these individuals immensely. Stretching and flexibility are extremely important to powerlifters, so in the future, I will review stretching exercises with the bands as well as traction methods with the bands if you are nursing a sore shoulder or back, etc.

When lifters call me regarding the bands, I always tell them the same thing. Once you try them, you will be sorry you didn't start them sooner.

Larry (Dr. Bench Press) Miller



Left to right: Steve Petrencek, Steve Spinelli, Dick (Rubber Band Man) Hartzell, Larry Miller. (All these photographs provided by Larry Miller).



Picture 4: Steve Spinelli spotting; Steve Petrencek benching (Notice how device attaches band to power rack). (Photo by Larry Miller).

are not overly stretched. With the bar in the lower upright position, we place two sets of blue bands around the bar. We double loop one and triple loop the other. It isn't easy to add that triple loop but if you have one person pulling on the band and the other adding a loop, it is possible. In this position we do partial reps from our chest to the mid range. It is very difficult to lock out the bar in this position. With 135 lbs. on the bar,

start the lift at the chest instead of at lockout since the bands are not heavily stretched at your chest. I encourage you to use spotters on each side, in addition to one behind you.

Before I forget, when the bands are positioned under the upright, try and center the knot where the bar contacts your chest. This way the bands won't pull you out of your groove.

Training with the bands can be



Picture 5: Frank Palmer doing the rubber band tricep push downs.

the two sets of blue bands, double and triple looped, add 105 lbs of tension at the chest, 150 lbs at the mid range and if you can lock it out, you have added 210 lbs of tension. So, in essence, the bar has 135 lbs on it, but with the bands, it's 240 at your chest and 345 lbs at lockout. With the bar set at the lower uprights, you should have 2 lifters do the lift off from the sides. When we do these band presses, it is easiest to

very tough on the body and you should be very careful. Some lifters like Joe McAuliffe, who has an exercise physiology background, recommends cycling the bands into your training.

The bands can also be placed in the power rack. We are using something called a clevice (Picture 4) to attach the bands to the racks. Using the clevice allows us to keep the tension on the bands even on both