

AthleticQuickness.com Speed Training Seminar

Session 1 – Isometrics

Transcript of Presentation by Dr. Larry Van Such

SESSION 01 – ISOMETRIC TRAINING

PART I

Hi, I'm Dr. Larry Van Such. And today I want to talk to you about isometric training and why I believe it is the best speed training technique available today. There are a lot of misconceptions regarding isometrics and its value as a training strategy and before I get into some of these misconceptions I want to first explain to you what isometric training is.

Isometric training is a training strategy where you apply a constant force with your muscles for about ten seconds. With Isometrics There are no repetitions involved as in weight training and plyometric training and so the lengths of your muscles never change.

A good example of this is if you held a 20 lb weight in your right arm and performed a biceps curl and held a position about 1/2 way up without moving your arm for ten seconds. At this point, your arm is no longer moving, but a force is still being applied.

The way isometrics was taught years ago dealt strictly with using weights as the resistance aid and not resistance bands. And still today when you mention isometrics to coaches, trainers and athletes that's the only thing they think about.

One area of isometrics that these people are familiar with is using isometrics to help athletes get past a sticking point in their bench press. This is where the coaches would study their technique and figure out where in the repetition they were the weakest, and then he would make them hold the bar at that same position for as long as possible.

But our programs don't teach using isometrics with weights. Instead, we teach Isometrics using the resistance band for the resistance, and there is a very important reason for doing that which I will explain to you in a minute.

Now resistance bands aren't necessarily new, you will see people working with them all the time, but you don't exactly hear anyone claiming to become faster by using them. (but you don't exactly hear anyone claiming to make a significant breakthrough in the speed, such as dropping their 40 yard dash time by 3/10's of a second or more.)

And the reason for this, I believe goes back to what I call a weightlifting strategy or a weight lifting mentality. A lot of people are conditioned to do repetitions with every type of exercise. For example performing dumbbell curls, bench presses, jumping up and down off of boxes, over and over again, as in plyometric training, that when they get a resistance band in their hands, they do the same thing; they start forcing their muscles through repetitions.

And I am here to tell you that if that's the case, performing repetitions with resistance bands will

not make your muscles contract any faster either.

So, let me summarize for you what I have said to you so far. Isometric training with weights won't help you get faster and using resistance bands with a weightlifting strategy (that is, performing repetitions) won't work either. **It's only the combination of isometric training with resistance bands that makes muscles contract faster.**

This is what I believe many so-called speed training experts, trainers, coaches and athletes never take into consideration. Again, when you mention isometrics, they immediately think of using weight for resistance, this won't work for speed; and, when you mention resistance bands, they immediately think of performing repetitions with them, which again, won't work either.

Now let me clarify that last statement, any training routine that involves putting your muscles through repetitions is not good for speed.

And I know this goes against what a lot of you listening out there have been taught. We are constantly being told about the no pain no gain theory. And That's a good mantra for strength and endurance training, but lets face it, do you or anyone else really know or heard of anyone having a major breakthrough in their athletic speed by involving themselves in a routine that literally forces their muscles to complete exhaustion?

And, for those who may be thinking about promoting plyometric training, which also involves a lot of repetitions, they should consider this: Running is a plyometric exercise involving repetitions with you legs. And if all you had to do to run faster was to go out and run (a plyometric exercise), then each time you ran, you should be faster than the previous time. Right? But we all know this is not true. This is because running more won't make you faster, rather, running more will give you the strength and endurance to run longer.

For a better understanding of exactly what a training routine that involves repetitions does to your muscles and how it conditions them specifically for strength and endurance and never for speed, I have put together an entire seminar on this subject that's due out shortly after this one.

Now there there are some who may ask, doesn't performing repetitions really fast make you faster?

And again, the answer is no. And the reason why will be explained in the next seminar.

And I will also tell you why could be hazardous the speed in which a muscle contracts.

Part II

Now, back to isometric training with the resistance band. I want to give you a little insight as to how and why the programs work.

So let me start out by asking you a question: If you were to stretch a regular elastic band from the ground up to about three feet, and at the same time you released the top end of the band, you dropped a barbell weighing about ten pounds from the same distance, which do you think would hit the ground the first?

Well, in case you are wondering, its the rubber band.

In fact it wouldn't even be close. This is because, in this example, we are dealing with two very different types of forces, or for those of you listening interested in physics, two very different types of energy.

The two energy types are gravitational energy which is found in weights and Elastic Energy which is found in rubber bands.

Now you don't have understand any of this to actually benefit from it, but sometimes its nice to know why something works. And the reason why a stretched rubber band will beat a barbell plate or dumbbell to the ground every time is because the acceleration properties that exist with a rubber band are far superior to the acceleration properties that exist in weights.

Weights have a standard acceleration known as the acceleration of gravity, which for you physics students out there will remember is 9.8 m/s² or 32.2 ft/s².

But, the acceleration properties found in our resistance bands is many times greater than this. This makes them unquestionably the best speed training tool you'll ever find IF YOU KNOW HOW TO TAKE ADVANTAGE OF THIS FACT!

Now here's how it applies to speed training, you are going to like this. Lets start out again by taking a simple rubber band. You stretch it and then release one end of it. What happens?

Well, The rubber band contracts back toward you, doesn't it?

and with amazing speed too. Now imagine taking a very large rubber band, like a resistance band that you see at your local gym, you stretch it apart, and instead of letting go of one end, you hold it apart for ten seconds. Now what is happening?

Well What's happening is that the elastic energy properties that exist within the stretched resistance band, the speed of contraction properties if you will, get downloaded or transferred directly into the muscles that are opposing it. This information is now being stored in your muscle memory. So in effect, you are training or programming your muscles to respond with the same acceleration as the resistance band - that is to contract with amazing speed when stretched. And the reason why your muscles will do this is because they are elastic in nature as well. They too share similar qualities like a rubber band.

But, the thing to understand here is that you can not get this type of elastic contracting effect through weight training or plyometric training. And I'll clear this up for you in the next seminar.

Also, it doesn't even matter if you increase the amount of weight you are training with because the acceleration of gravity, remains the same no matter how much weight is involved.

Therefore the elastic energy found in the resistance bands is what makes them the ideal training device to transfer speed into your muscles.

Now one other thing I want to mention here is that you cannot use just any type of resistance band. Some bands are too weak regardless of what level or resistance you use and, likewise, some

bands are too strong. After using many different types of bands, the ones I've found to be **the most effective** are the ones produced by a company by the name of CANDO.

The CANDO elastic bands, I believe, are the ones that **most accurately resemble the elasticity found in your skeletal muscles**. And as a result, this makes them **the most suitable bands to use** when it comes to speed training. These are the ones we supply with our programs and sell on our website. So if you ever find yourself needing more bands, don't reach for just any one you can find. Using the proper band ensures that you are getting the best possible results from your speed training exercises.

Part III

Now I want to talk about a little bit about skeletal muscles. Skeletal muscles are the muscles that create movement in our arms, legs and so forth. All of them are designed for strength, endurance and speed. And you might be wondering how is it that one muscle can perform these different functions?

And the reason your skeletal muscles can perform different functions is because muscles are made up of different fiber types; These are your **slow twitch fibers** and **fast twitch fibers** which everyone seems to be talking about these days.

Now I will discuss these two fiber types in greater detail in the next few seminars. But for now, The thing we need to understand here is that because our muscles have these two different fiber types, they have to be trained differently. In other words, you cannot train for speed in the same way that you train for strength.

But the interesting thing that I've seen when I looked into a lot of the different so-called speed training programs on the internet and in the bookstore is that practically all of them are very similar to strength and endurance programs. Some of them are almost identical.

But you have to ask yourself, if there are two different fiber types in the body with two different functions, wouldn't you think there should be at least two different ways to train you're your muscles?

Because I certainly think so.

I saw this training routine on the web, and I am going to list some of its exercises for you: Here they are: cable pulls with weights, lunges, squats and pushups. Now let me ask you this, what type of athlete or sport do you think this training program was designed for?

Some of you might be thinking of an Offensive or defensive lineman in football?

And if you are, you're right, lineman in football do these exercises to help them get stronger to block for the quarterback and open holes for running backs on offense or to fight through blocks on defense, but this same information was found on a golfing website. And that website claimed that by doing these you will be able to swing a golf club faster!!!

Now I don't know about you, but this makes absolutely no sense to me.

Up until now there has been very little difference in strength programs and what people are advertising as speed programs. And I know this leads to a lot of disappointment for you athletes

out there trying to become faster by using them.

That is what makes isometrics with the resistance band so vital to speed training. Because the fibers that produce faster muscles respond to this type of training. Fast twitch fibers, which again I'll talk about another time, won't respond to weight training and they won't respond to plyometric training. In fact, when you do these types of exercises, you are literally re-training and re-programming your fast twitch fibers to behave like slow twitch fibers –. Not only will they not make you faster, but they will probably make you slower as well.

This is why you will always feel wiped out, totally exhausted after doing plyometrics and weight training. These routines strip your muscles of their elastic contracting ability which makes even doing the simplest routines afterwards such as washing your hair or brushing your teeth almost impossible and likewise shooting baskets or hitting a golf ball?

However, after you train with our programs you will immediately start to feel lighter, faster and more responsive. This is the complete opposite of what happens after using these strength training programs.

And if you've read our testimonial page on the website you will see the excitement in the athletes who have used our programs because it is such a thrill for them to finally be able to affect such a positive change in their speed and quickness.

PART IV

So a well rounded training routine really should include speed training as well as strength training, but it will do you no good if your so-called speed training program is really a strength and endurance program in disguise.

And the way to know this is to ask yourself these three questions: Number 1, Does your current training routine involve repetitions, Number 2 Does your current training routine take longer than 45 minutes to perform and Number 3 Do you feel tired, heavy and sluggish afterwards? In other words, do you feel slower instead of faster when you are finished. And if you answer yes to these three questions, then you do not have a speed training program, you have a strength and endurance program.

And I will be willing to bet that a lot of people out there would answer yes to these questions.

And again, what most coaches and athletes do not understand is that muscle speed can not be developed by training for strength. That is why most athletes are always struggling to increase their speed with little success.

Now it is sometimes said that speed is something you are born with and can not be developed. Don't believe this for a minute. If you use the resistance band with an isometric training strategy the way our programs teach, you can actually develop this trait. I've seen it done literally thousands of times and it's a lot easier than you would expect.

Now I'm going to end our discussion on isometric training right here. In the next seminar on slow twitch fibers and slow twitch training programs, I will clarify a lot of what we talked about today and hopefully further prove to you how using the resistance band with an isometric strategy is really the only pure way to train for speed.

In the meantime, if you are wondering which program is best for you, any one of the RF, KF, JH, and Tennis programs are fantastic to increase your running speed as well as other athletic skills. For upper body speed, we recommend either the baseball, tennis or golf programs.

Thanks again for tuning in, For AthleticQuickness.com I'm Dr. Larry Van Such!