

How to Run a Faster 40!

**Little Known Secrets of Speed Training
That Will Make You Faster
in Just a Few Days!**

Dr. Larry Van Such (the Author and Publisher), the Sales Agents and the Distributors of this program individually and collectively disclaim any personal liability, loss or risk incurred as a consequence of the use and applications, either directly or indirectly, of any advice, information or methods presented herein.

Though the methods of this program have been proven to be effective, the Publisher, the Author, the Sales Agents and the Distributors further disclaim the expectation of any specific result, for any person, under any circumstance.

Copyright 2013 by Dr. Larry Van Such.
First Edition.

All rights reserved.

No part of this manuscript may be reproduced by any means without the express and written consent of Dr. Larry Van Such.

Published by Dr. Larry Van Such.

Registered with the United States Copyright Office:
Register of Copyrights
Library of Congress
Washington, D.C. 20559

Title: How To Run A Faster 40!

Printed in the United States of America.

Table of Contents

Introduction

<i>Part 1 of 4: The Push Phase</i>	<i>Page 1</i>
<i>Part 2 of 4: The Swing Phase</i>	<i>Page 5</i>
<i>Exercise #1: Hip Flexors</i>	<i>Page 9</i>
<i>Part 3 of 4: The Pull Phase</i>	<i>Page 12</i>
<i>Part 4 of 4: Resistance Band Exercises</i> <i>With Isometrics For Faster Muscles</i>	<i>Page 16</i>

Introduction



Dr. Larry Van Such, DC, BE

Dear Athlete,

Thank you for your interest in learning how to become a faster athlete. The information contained in this manual is a brief introduction to the training program called Run Faster With The 15 Minute Speed Trainer!

In this manual are the scripts from the 4 part video series that you signed up for. They have been reproduced in written form for those who prefer to learn at their own pace by reading.

The information contained here has many little known secrets of speed training that will make you faster in just a few days! It's been proven time and time again and the expectation is the same for you.

So take charge and use this information. The possibilities of what you might accomplish are endless!

Sincerely,

Dr. Larry Van Such, DC, BE

PART 1 of 4 - THE PUSH PHASE

Okay everyone, I am going to start a series of articles that I call speed training secrets and show you what are some of the biggest reasons why so many of you today are struggling to get faster in your sport.

The information I am going to share with you is going to help you immediately perform better in football, basketball, baseball, tennis, soccer and really any other sport where speed is critical for your success.

This information will also help you form a solid foundation for running faster, jumping higher and jumping longer; and if you play a sport that involves kicking, such as soccer, or if you are the punter or placekicker on a football team, it's also going to help you in just days improve your kicking height and distance. Plus, if there are any of you mixed martial artists tuning in, this information is going to help you to improve the speed and strength in any number of kicks you do in just a matter of minutes.

What You Must Learn and Do to Become a Faster and More Complete Athlete

Now, in this article and in the ones that follow I am going to start talking to you about two of the most powerful muscle groups in your body, your hip flexors and hip extensors, and why you still may not have activated each of these muscles groups the right way for blazing speed and quickness with your current training methods. And when you start to train them the way I am personally going to teach you in these articles, it will be like unleashing a huge reservoir of untapped muscular energy!

We are also going to talk to about fast twitch fibers (you've heard of those, right?) and why many who think they are training them properly for speed and quickness are really only performing modified strength training exercises; seeing little to no gain in speed as a result.

In Part 2 of 4 in this series, I am going to give you the opportunity to try a sample exercise that will turn on these fast twitch fibers and will literally transform your athletic ability in just a couple of minutes a day. The exercise in that section is already responsible for helping thousands of athletes run faster and it will do the same for you so be sure to read on because you certainly don't want to miss it!

In addition to all this I am going to be covering something called your turnover rate and how this affects your running speed, jumping height and kicking distance and how if you ever want to be an all-star athlete, and let's say, be able to separate yourself from a defender to make a play, or perhaps become a better defender in football and never let your man get open like a shut-down cornerback, or even something like stealing second base, beating a throw to first or chasing down a fly ball in baseball, you will absolutely need to start training to improve this area immediately.

And finally, I am also going to give you what I consider some bonus information in Part 4 of 4 in this series.. In that article I am going to talk in more detail than I ever have before on how isometric training using the resistance band is able to condition your muscles for blazing speed and quickness unlike anything else you've ever done.

So we have a lot to cover here in Part 1 of 4 and the ones to follow and if you read through them all, I promise you will become a more dynamic, more complete and a way more confident athlete. You're going to be the one who makes the headlines and leads your team to victory. I really mean this. I see it happen on a regular basis and now for the first time I am going to personally teach each you, right here and right now, to achieve a higher level of athletic success.

The 3 Phases of the Running Process

So let's get started. I want to start first by talking about the running process, that is, the stages or phases your body and muscles go through as you run. Since running is a part of all sports this is a good place to start since it will allow me to bring into the discussion other really important aspects about your muscles, your training, different exercises you may be doing or may need to start doing, and how it affects your overall performance.

Now, there are three basic phases to the running motion: 1) the *push phase* which some people may call the drive phase, 2) the *swing phase* which makes up your stride and 3) the *pull phase*. These three phases make up the running motion for all athletes.

Whether it's an Olympic sprinter participating in the 100 meter dash, a football wide receiver running a post route, a baseball player taking off to steal second base or even a basketball player taking off down court for a fast break, the legs of each of these different athletes have to cycle through each of these same three phases, over and over again, throughout the entire time they are running. For example, the right leg will sequence as follows:

Push phase > Swing phase > Pull phase > Push phase > Swing Phase > Pull Phase etc.

The left leg follows a similar pattern however, the phases of running for the left leg are not in synch with the phases of running for the right leg.

While there may be different running techniques or styles and perhaps different situations that athletes find themselves in, the muscles involved during each phase of the running process always remains the same.

Now of the three phases, the push phase is the most popular when it comes to training because many people not only associate it with the start of the race but the entire race as well and as a result, **most of your current speed or sprint training routines today focus on exercises that try to improve this phase only.**

So the first thing we need to do is define exactly what is meant by the push phase of running and to help us with this we are going to show you series of images of an athlete running down the football field.

The Push Phase

The push phase begins when the thigh of the foot touching the ground is perpendicular to the ground, and ends when the toes of this same foot are barely touching the ground behind you. Figures 1-1a, 1-1b, 1-1c and 1-1d show the stages of the push phase shortly after the start of a race for the **right leg**. See Figures 1-1a through 1-1d on the next page:



Figure 1-1a. Start of the push phase for right leg. Right thigh is perpendicular to ground.



Figure 1-1b. Middle of the push phase. Right thigh and leg are extending behind the runner.



Figure 1-1c. Continuation of push phase. Right thigh and leg near complete extension behind the runner.



Figure 1-1d. End of push phase. Right thigh and leg fully extended. Right foot makes last contact with ground.

The muscles involved in the push phase are the knee extensors (Figure 1-5, page 20), hip extensors (Figure 1-6, page 20) and the ankle plantar-flexors (Figure 1-6, page 20).

Now the push phase is an extremely important part of the running process and certainly requires the proper amount of training however, **the FIRST THING I hope you get from this article is this:** the push phase accounts for only 1/3 of the total running motion. Most exercise equipment in the gym is designed to train muscles primarily with the push phase of running only and they don't really target the other two phases; the swing phase and the pull phase.

Examples of Push Phase Workouts

For example: Leg extension machines help your quads for knee extension; calf raise machines help with ankle plantar-flexion; leg press machines help with both hip and knee extension; you also have squats which helps with both hip and knee extension. The same movements and muscles are used when running down the field with a parachute or pushing a sled.

All these muscle groups are involved in the push phase. You also have the leg curl machine for your hamstrings, but leg flexion, or knee flexion as they call it, does not make up a big part of the sprinting motion.

Your hamstrings are mainly involved in hip extension during the running motion not knee flexion. Now most people only think of them as knee flexors, but they are also very powerful hip extensors when trained properly. Therefore training your hamstrings on a leg curl machine has very little impact on your running speed.

Now, you may also be involved in some plyometric type exercises like jumping up and down off of boxes and hopping and bounding type exercises, which have their purpose, but those too only affect your hip extensors, knee extensors and ankle plantar-flexors; all of which, again, mainly affect the push phase of running and not the swing phase or pull phase.

And what about the growing popularity of the Olympic lifts such as the clean and jerk and also the snatch? While these are excellent exercises to incorporate into your overall training, they don't target the muscles involved in the swing phase of running and they also don't train the muscles in the proper plane for the pull phase either. Do you see a pattern developing?

2/3's of the Training For Running Speed Is Missing

So, now, the other thing I hope you get from this first article is this: It's quite possible then that

when you leave a gym or perhaps the track, believing you have done everything imaginable to help improve your running speed, you are still leaving behind anywhere from 1/2 to 2/3's of the necessary training required to run faster, jump higher and kick farther.

And this is all because you haven't even considered training for the other two phases of running: the swing phase and pull phase. And if you are leave out training for these two phases entirely, then you are not really training yourself to run, but instead, **you are really only training yourself to jump; and as odd as this may sound, this motion is easily observed in something like a frog where all they do is just push off and land, push off and land.**

But you can see just by observing another person run that each leg has to recycle itself, again and again, in the running motion, and this is something called your turnover rate, and it affects your running speed a great deal.

And so now another thing I want you to get from this first article is this: your turnover rate is controlled by all three phases of running and not just the push phase.

And if you are like most athletes, even professionals, you probably have never even trained for the swing phase and pull phase, not even once. And so we absolutely need to discuss these two phases and we're going to do that in the next two sections.

So the challenge most athletes will face is finding a training program aimed at improving all three phases of running and not just the push phase. There's no point going to the gym, track or the field again and again, day in and day out and only training for 1/3 of the running motion, is there?

This is where the success of the **Run Faster program has really gotten a lot of attention** because it focuses on strengthening and quickening all of the muscles in each of the three phases of the running process.

And it conditions these muscles in new and different ways than what you normally do and that alone has **incredible benefits for improving an athlete's performance.**

Next, Part 2 of 4: The Swing Phase

Now in the next section I am going to break down the second phase of running, the *swing phase*, which affects the length of your stride as well as the speed of your turnover rate; I am also going to talk more about one of the strongest muscle groups in your body, the hip flexors; and show you how one simple exercise will totally transform you in a matter of minutes into a top notch athlete. You are going to get a chance to do this exercise as well so be sure to read this next section as it contains a lot of valuable information.

Now if you need to, go back and review everything in this section again before proceeding on to the next section because we are going to build on everything we just talked about here so far in the sections to follow and you want to be prepared for this.

And one final thought here: I want to commend you for investing your time and effort into doing all you can to be a better athlete. I respect that and as a result, i am going to do all I can to help you reach your athletic goals.

PART 2 of 4 - THE SWING PHASE

Here I am going to continue to break down the running process and talk about the second phase of running, the swing phase, and how **conditioning your muscles for just this one phase will quickly make a huge improvement in your speed.**

We are also going to talk about the dynamic role your hip flexor muscles play in this phase. We are also going to get into how and why **your fast twitch muscle fibers respond very quickly and produce more speed when being trained with the resistance band using an isometric training strategy.**

I am also going to show you an exercise that I know will make you a faster athlete beyond your wildest expectations. This exercise will help you compete at your highest levels and help you avoid the disappointments that other athletes typically experience when trying to get faster. There's lots to cover so let's get started.

The Swing Phase and Hip Flexors

Okay, the second phase of the running process, called the swing phase, is where the trailing airborne leg needs to be pulled from behind you and quickly extended out in front of you. This is where your hip flexor muscles play a critical role in your sprinting speed. There are 7 of these hip flexors on both sides of your body for a total of 14. See Figure 1-5 on page 20.

Now, your hip flexors are some of the longest and strongest muscles in your body but, **they are essentially dormant in most athletes**, meaning, they have never been activated for speed or exercised properly for any athletic function other than walking.

Some of them, like the psoas muscle, begin high up in your lumbar spine; while others like the rectus femoris muscle starts out low on the pelvis; and they all cross the hip joint; most of them attach to your thigh while one of them, the Sartorius, is so long that it attaches just below the knee.

In a sense, your hip flexors bridge your upper body to your lower body. You might also think of them as acting like a hinge between your core and legs, allowing them to work together in unison.

As their name implies, their function is to flex the hip or to flex the thigh up on the pelvis and they play a major role in running, jumping and kicking.

Hip Flexors Go Unnoticed and Untrained

However, since these muscles are hidden deep within the midsection of your body they usually go unnoticed and untrained.

They are not considered a very glamorous muscle group to exercise like your biceps and this is why a lot of athletes aren't even aware of them and completely ignore them in their workouts.

If you have weak hip flexors that are not properly developed you will never perform at your highest level and will always feel like you are stuck in second gear.

There is probably not a worse feeling to have as an athlete then to feel slower than your opponent or not being able to make the play because you were just not fast enough, and if this sounds like you, then we need to get to work on fixing this. So, let's take a look at your hip flexors in action during the swing phase.

The Swing Phase. The swing phase begins when the toes of the foot that just finished the push phase have just left the ground behind you and ends when this same foot strikes the ground in front of you. The distance covered by the swing phase is what many people refer to as their *stride*. Training to improve your stride is not very difficult however, it is perhaps one of the greatest oversights athletes make. Improving this phase of running can make a big difference in your running speed. Figures 1-2a, 1-2b, 1-2c and 1-2d below show the basic stages of the swing phase for the *right* leg:



Figure 1-2a. Start of the swing phase. Right foot has just left the ground.



Figure 1-2b. Middle of swing phase. Right thigh is being pulled forward.



Figure 1-2c. Continuation of swing phase. Right thigh is now flexed in front of runner.



Figure 1-2d. End of swing phase. Right foot strikes the ground in front of runner.

The muscles involved in the swing phase are the hip flexors (Figure 1-5, page 20), knee flexors (Figure 1-6, page 20) and knee extensors (Figure 1-5, page 20).

Training Hip Flexors will Quickly Improve Speed

Now the good news here is that training to improve your swing phase is not very difficult however, it is perhaps one of the greatest oversights athletes make when attempting to train for speed.

So, the first thing I want to make sure get from this section is this: properly training your hip flexors will quickly and significantly Improve your:

- 1) running speed,
- 2) jumping height,
- 3) jumping distance,
- 4) kicking height and
- 5) kicking distance.

So now my question for you is this: what exercises are you doing right now to help you train for this swing phase motion?

Can you think of any? You might think about what exercises you have done to train your hip flexors, such as hanging leg lifts or perhaps certain sit-up type exercises done on a decline bench, maybe some work with a medicine ball, and if you came up with these or any others, are you really training the hip flexors to simulate the exact motion as they are used in the swing phase of running? And how long are you engaging these muscles anyway? A few seconds?

Chances are, you have never even bothered to train your hip flexors for this motion. This is because there is no real good equipment in the gym to do so and there was probably never any importance placed on them in the first place.

Now, some people have even gone so far as to dismiss this critical phase of running as not being important because they say, "there is no weight placed on the trailing leg during this motion, so why train for it?"

Well this makes about as much sense as trying to tell a boxer not to practice throwing punches or to do any shadow boxing because since there is no weight placed on their arms while punching, why train for it; Doesn't make a lot of sense, does it?

But an even bigger reason to train your hip flexors for the swing phase is what I said about this in the previous section and that is if all you do is train your leg muscles for the push phase of running, which is what most lower body training is all about anyway, then you are not really training yourself to run but instead, you are really only training yourself to jump.

And I referred to the example of a frog where all they do is just push off and land, push off and land. And if you recall I pointed out when you observe another person running **you see more than just pushing you see that each leg has to recycle itself in the running motion, again and again, and that was called your turnover rate and it affects your running speed a great deal.**

Now if you have never trained for this swing phase motion before don't be upset, I am quite convinced that many people haven't: The reason why I say this is because I have been in contact with professional athletes on NBA championship teams and superbowl winning teams and I can personally tell you that **professional athletes are still in the dark when it comes to training their hip flexors properly.**

How to Train Hip Flexors For Speed

Most of them still don't even know what their hip flexors are for! But this is where you can make great strides, literally, in your athletic performance and take your game to the next level.

Now you might be thinking to yourself that the first thing you should do is go to the gym and perhaps tie a cable of some sort around your ankle and pull some weights simulating this swing phase motion, but that is probably not a good idea right now.

First, you might get hurt because to get the leverage needed to activate your hip flexors for speed, the force needs to be really high and dynamic and if the weights get away from you, you can tear a muscle before you even get started.

Second, you see, **training with weights is great for adding size to your muscles and getting stronger, but it isn't the best way to train your muscles to contract faster and for speed.**

This is where the technique of using **the resistance band with an isometric training strategy blows away any other speed training technique.**

And this has to deal with how and where the force of the band is distributed back into your muscles and tendons and this will be the subject of Part 4 of 4 in this series.

For now, let me state that with regards to the swing phase, which is controlled mainly by your hip flexor muscles, **they are absolutely loaded with fast twitch muscle fibers**, the fibers that help your muscles contract with speed, and while fast twitch fibers like to get big when you train them with weights, **training with weights and getting bigger doesn't always make them contract faster.**

And you may already know this to some extent simply by the way you feel after a heavy weight training workout. You may walk out of the gym with a good pump in your muscles but you are probably at least twice as slow walking out of the gym than you were walking in to the gym.

However, **speed training programs, when done effectively, should leave you feeling lighter, faster and more responsive when you are finished and not tired, heavy and sluggish as with other training methods.**

I realize this is a new concept for many of you reading this but its true and you are going to get a chance to experience this for yourself here in a minute.

Now we also know that the biggest and strongest guys in the gym or on the team aren't always the fastest, right?

As an example, have you ever seen a big, powerful, professional football player or perhaps basketball player swing a golf club? It's not a pretty sight is it? Guys half their size and sometimes as much as 20 years older out swing them by as much as 30 mph and out drive them easily by 50 yards or more.

So for now, the second thing I want you to get from this section is this: **get it out of your head that you need to have big muscles to be fast.** Sure it would be nice, but it's not necessary.

Now getting back to your hip flexors and their role in the swing phase of the running process, because they are loaded with fast twitch fibers, **they respond incredibly well to being trained using the resistance band with an isometric training strategy** and whenever you train them this way, they always end up becoming quicker when finished, not slower.

This is also because on top of the muscles getting a more dynamic workout when forced to hold an isometric contraction using the band, so do the tendons that attach these fast twitch muscle fibers to the bone.

You see your tendons are also like huge elastic rubber bands themselves and forcing them into an isometric contraction can make a huge difference in your speed and quickness.

This makes isometric training with resistance bands a perfect match when training for speed. Now when you perform the exercise I am about to show you for your hip flexor muscles, you are essentially going to flip a switch on your athletic performance. **You are going to be able to run faster, jump higher and kick farther after just a few days of this type of training.**

EXERCISE #1

Muscles Trained: Hip Flexors (Figure 1-5, page 20) and Knee Extensors (Figure 1-5, page 20).

STEP 1. Tie one of your bands around an immovable object, in this case the leg of a heavy table, (e.g. a *pole*), as shown in Figure 1-3a. Next, place your right foot inside the loop with your back facing the pole as shown in Figure 1-3b.



Figure 1-3a. Resistance band tied around a pole. Any knot will do as long as it does not come undone.



Figure 1-3b. Right foot inside the loop with your back facing the pole.

STEP 2. Depending upon your size and strength, begin stepping slowly away from the pole or other immovable object in the direction of the black arrow as shown until you feel the tension in your right hip flexors and quadriceps (white arrows) starting to increase. See Figure 1-3c.

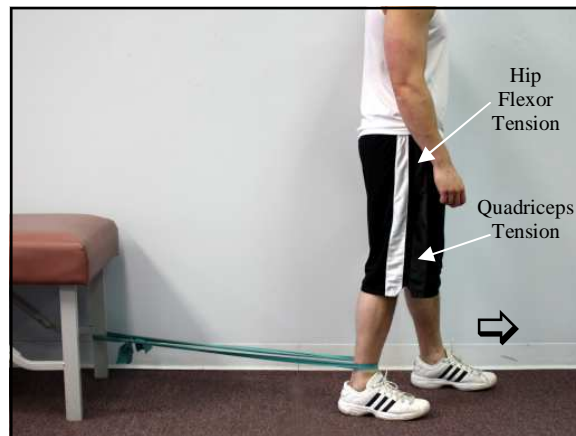


Figure 1-3c. Body positioned further away from the pole. Resistance band is now stretched. Tension is felt in your right hip flexors and quadriceps.

STEP 3. Lift your right foot off the ground about 12 inches as shown in Figure 1-3d. Finally, extend your right foot forward in the direction of the black arrow as shown in Figure 1-3e and then hold this position without changing it for 10-15 seconds. See both figures on the next page:



Figure 1-3d. Right foot raised off the ground about 12 inches.



Figure 1-3e. Final position held for 10-15 seconds using between 70-80% of your maximum strength.

STEP 4. Repeat STEPS 1-3 with your left leg.

TRAINING TIPS. 1) The most important aspect of this, and all of the exercises, is to hold and maintain the final position for 10-15 seconds using between 70-80% of your maximum strength; this is the key to your speed training success. 2) You may need to reposition yourself closer to, or farther from, where the band is attached to achieve the proper amount of resistance. 3) It may be helpful to balance yourself against a wall or a chair to counterbalance the twisting effect this exercise has on your upper body. 4) Use a watch or a clock with a clearly visible second hand so you can accurately time your exercises.

Do This Exercise Yourself For Improvements in Your Athletic Performance

So, now, the third thing I want to make sure you get from this section is this: do not take the information presented in this exercise lightly.

This is where most of our athletes have started their journey to becoming 1) faster athletes; 2) stronger jumpers and 3) more powerful kickers and this includes **a high school national sprint champion in the 60m dash.**

If you apply yourself and follow the instructions, I know you will dramatically improve your athletic performance and start making the plays that wins games and gets you noticed by coaches and scouts.

And let me also just say, this is still only one of the many dynamic speed training exercises that our athletes have done that are offered in our training programs. It's also what many have credited with helping them get division one scholarships.

So for now, your goal is to review the entire contents of this section so that you understand the importance of the swing phase and can take the necessary steps to improving your speed.

Also, do this exercise over the next several days the way I have outlined for you here: http://howtorunafaster40.com/files/speed_challenge_instructions02.pdf

Doing so will put you on the fast track to better total performance in your sport and then just imagine how much more confident and better of an athlete you will become if you were to do all the exercises in the Run Faster, Jump Higher or Kick Farther programs!

Next Part 3 of 4: The Pull Phase

Now, in Part 3 of 4, I am going to talk about the third and final phase of the running process, the pull phase. I am going to break it down for you and also show you how your hip extensor muscles are involved in it and also show you why you may not even be training them properly.

This phase, along with the swing phase and push phase, also makes up one complete leg cycle and the speed in which you do this is what many call your turnover rate. We'll talk about that in more detail as well. So be sure to read the next article in this series for all of this important information!

PART 3 of 4 - THE PULL PHASE

Here I am going to finish breaking down the running process and talk about the third and final phase and that's the pull phase. This is where your hip, or thigh, extensor muscles play yet another major role.

The pull phase is a very unique phase of the running process and one that I am certain most athletes don't even know about and so what you learn here is certainly going to give you an immediate advantage over your opponents and help you take your game to the next level.

And if you recall, the pull phase, combined with the swing phase and push phase helps determines how fast your turnover rate will be and this ultimately affects your running speed and therefore we are going to talk about this in more detail here as well. So let's get right to it and start by taking a look at the pull phase in action.

The Pull Phase. The pull phase begins once the foot strikes the ground in front of you and your thigh is still flexed and ends when the knee and thigh of the same foot are perpendicular to the ground directly beneath you. This is the shortest of all the phases and it too is often overlooked by a lot of athletes. Improving this phase of running can also make a big difference in your running speed. Figures 1-4a, 1-4b, 1-4c and 1-4d below show the basic stages of the pull phase for the *right* leg:



Figure 1-4a. Start of pull phase. Right foot on the ground; right thigh (arrow) is flexed on the hip.



Figure 1-4b. Middle of pull phase. Right thigh (arrow) flexed but is now starting to be pulled underneath runner.



Figure 1-4c. Continuation of pull phase. Right thigh (arrow) almost perpendicular to ground beneath runner.



Figure 1-4d. End of pull phase. Right thigh (arrow) perpendicular to ground; push phase set to repeat.

The primary muscle groups involved in the pull phase are the hip extensors (Figure 1-6, page 20) and to a lesser extent, the knee flexors (Figure 1-6, page 20). Note: the hamstring muscles have two functions: 1) hip extension and 2) knee flexion.

The Role of the Hamstrings in Running

Now your hamstrings play a huge role in this phase and they do so acting primarily as hip extensors, or thigh, extensors but most athletes typically only think of them as knee flexors where you may have trained them in the past on a leg curl machine.

And if you think leg curl machines are really going to help your running speed a lot then think again. First of all, leg curl machines are excellent machines and you should do these exercise whenever necessary, however they only train the lower part of your hamstring muscles for knee flexion and that particular movement does not make up a big part of the sprinting motion.

Instead, it's the upper part of your hamstrings that are attached to your pelvis that extend the hip or thigh backward, or in this phase, pulls the hip or thigh backward - that is the more dominant action during the running motion as seen in this pull phase.

So your hamstrings (semimembranosus, semitendinosus and biceps femoris long head), along with your gluteus maximus muscle are very powerful hip extensors, and they drive this pull phase, **but they need to be targeted properly to affect your running speed.**

The Importance of the Pull Phase

Now this pull phase is the shortest of all the phases however, it is an extremely critical phase because not only does it affect your speed while you are running, it actually helps you get off to a quicker start from a motionless, or a still, position during any athletic activity.

This is because before you can start to run, your body has to lean forward a little and lower itself a bit first to force the knee and hip into flexion because these two positions are necessary to initiate the running process from an upright stance.

And if you recall from Figure 1-4a on the previous page, hip flexion and knee flexion are characteristic with the start of the pull phase. So developing a quicker and stronger pull phase is an extremely important skill to have as an athlete.

If you are a baseball player, it will help you get up to speed during the first few steps coming out of the batter's box and racing down the line to first base. It will also help you get a good jump if you are looking to steal second base.

In basketball where your direction changes all the time, it helps you get a quicker start to steal a pass or dive for a loose ball, plus it will make you a much better defender by improving all of your anticipation skills which are necessary to get you into the more dominant position to totally shut down your opponent.

The pull phase also initiates the momentum necessary to jump higher and farther and it helps you to accelerate your legs just before you punt or kick a ball.

So it is a very big deal for an athlete to be able to access more speed and power when they need to and separate themselves from the competition and developing a more powerful pull phase will help you with this.

Training for a Quick and Fast Pull Phase

Now along with the swing phase that we talked about in the last article, the pull phase is often overlooked by a lot of athletes simply because there is no real good equipment in the gym to simulate the movement in the proper planes of motion for this running phase.

And like the swing phase, there was probably never any importance placed on it in the first place. So the pull phase is definitely an area for you to look forward to improving as you continue to grow into a more competitive athlete.

Now you might say that you are already training your hamstrings and glutes so what's the big deal?, but then I have to ask, what exercises are you doing to simulate the exact motion that

these muscles are needed for the pull phase?

What you might come to find out is that, sure, you may be training them, but only for the push phase. Again, squats, leg presses and leg curls won't affect this pull phase the way they need to.

You might also have a little success with tying a parachute or weight sled to your waist and running down the track or field, but remember what I said about fast twitch muscle fibers really responding to isometric training with the resistance band?

Well, it just so happens that your hamstrings are loaded with fast twitch fibers too, **but if you burn them out with heavy training exercises, you are stripping away all the elastic stretch potential in your muscles and tendons needed for speed**, and again, you can feel this by how slow you are after a heavy workout.

Remember, your fast twitch fibers contract really fast and are very strong, but they fatigue or get tired really quickly.

So, if you are only engaging in an **exercise routine that burns these muscle fibers out, again and again, each time you get to the track or gym, then you are working against the natural speed instincts of the muscles**; and your conditioning is taking them away from a speed function towards an endurance function and that can actually hurt your speed.

So while you need to do these types of exercises for strength, where athletes get caught is when they **mistakenly overdo them by trying to perform a repetition faster and faster and thinking that what they are doing is all of a sudden a speed training program; because it's not**; it's really an accelerated endurance program.

A good example of this is burning out your muscles by running down the field as fast as you can with a parachute tied behind you and thinking you are training your muscles for speed.

And this excessive type of training can reduce your speed and quickness especially if extra weight is added to muscles that don't play any major role in your athletic skill. If that occurs, it simply becomes excess baggage and carrying these extra pounds won't make you as an efficient of a runner or as fast a runner as you can be.

Turnover Rate

Your turnover rate is defined as the number of times one of your feet strikes the ground during a race divided by the number of seconds it takes for you to complete the race. It is measured in steps per second or steps/sec. So, for example, lets say you run the 100 meter dash in 11 seconds and it takes you 40 total steps to run the race, 20 with each leg. Your turnover rate is then calculated as:

$$20 \text{ steps} \div 11 \text{ seconds} = 1.82 \text{ steps/second}$$

With regards to the running process, what this means is that it will take you 1.82 seconds for each leg to cycle through all three phases of running (push, swing, pull) before repeating itself. The likelihood of you increasing your turnover rate and therefore your running speed is therefore dependent not only on the push phase, which so much of ones training might be

focused on, but also the swing phase and pull phase for which very little, if any, attention is ever given.

The question I have for you is, what would be the quickest and easiest way for you to increase your turnover rate and subsequently your running speed? ...continuing to try to improve your push phase? ...or starting for perhaps the first time to train for the swing and pull phases? The answer should be clear and if you have done the exercise shown in the video as well as here on page 10, you will have taken one gigantic step toward improving both your turnover rate and running speed.

Now the Run Faster program, Jump higher program, and Kick farther program all have specific exercises needed to improve all three phases of running, including the pull phase which you just saw here.

The exercises in these training programs all use the resistance band with an isometric training strategy for speed and are unlike anything you have ever done.

One of the biggest differences that people notice, is that when they use our programs, they don't get tired or fatigued afterward, instead, they feel lighter, faster and more responsive and this is usually a very unique feeling for athletes the first time they try our programs.

Next, Part 4 of 4: How to Train Muscles For Speed

And so for those of you who may be interested in all the details about how and why using the resistance band with an isometric training strategy makes your muscles faster, I'm going to talk about this in greater detail than I ever have before in the next article so make sure you read it for all of this important information!

PART 4 of 4 - RESISTANCE BAND EXERCISES WITH ISOMETRICS FOR FASTER MUSCLES

Okay everyone, in this section, I want to explain to you why it is important to include isometric training with the resistance band into your workout routines if you ever hope to be a faster athlete and take your game to the next level.

I am going to start with what I think is some pretty basic information about the resistance band that you may already know about, but then, I am going to give you what I consider bonus information here; information as to how dynamically your muscles respond when you use the resistance band with an isometric training strategy and **how that will make you dramatically faster in a very short amount of time!**

So, let's get started.

The Problem With Doing Repetitions Using Bands

Okay, first of all, when most people start to exercise with the resistance band what tends to happen is that the exact same types of routines that they normally do with weights tends to carry over with the resistance band.

What this means is most weightlifting exercises are usually done while performing repetitions with the weights, where the muscles are exercised through their full range of motion.

The biceps curl with a dumbbell is one example. While holding the dumbbell down by the side, the forearm is flexed at the elbow until the weight held in the hand ends up in front of the shoulder, and then lowered back down again. This process is typically repeated 8-12 times.

Through habit more than anything else this same strategy is carried over with the exercise bands. The most likely first attempt at an exercise when one is handed a band therefore is to do the same thing with them. Whether its performing biceps curls, triceps push downs, or seated rows, the band is typically used as a resistance aid, in place of the weight, to exercise a muscle through its full range of motion.

Certainly, you have seen others do this in the gym or perhaps even done so yourself, right? Well, there is nothing really wrong with this strategy - as all exercise has some benefit to an athlete, but there is something you need to be aware of.

First, with regards to training with resistance bands, you should know that when you start an exercise, your muscles are typically at their weakest point. This is because your joints are typically fully extended where you cannot get much leverage over the exercise and there is no momentum created from the exercise itself that you can initially take advantage of.

Now, combine this with the resistance band having not yet been stretched to a point where there's any real resistance from it, and you can see where the beginning of any exercise using an un-stretched band will have little or no effect on your conditioning.

As you proceed with the exercise, the range of motion of the joint starts to increase, and as that is happening, the band is starting to stretch, increasing in resistance. Remember, the resistance

bands resistance is a function of its length when stretched; the more you stretch it the greater the resistance. So, you end up at a point in the exercise where your leverage over it is very high and the resistance of the stretched band is now also very high.

So, by using bands with a repetitive strategy similar to weight training, the only real affect they have on the muscle is during the latter part of the exercise.

If that is what you are after, then great, but there still is a far more effective strategy for using them, especially when you want to develop greater speed of contraction and muscle coordination.

Isometrics: A More Efficient Use of the Band

Now a more efficient way to use them is to position yourself such that the band is pre-stretched and is already giving you strong resistance at a point within the range of motion and then hold that position for 10-15 seconds without moving. This is considered an isometric contraction with the band and this is what was shown to you earlier in the hip flexor exercise.

Muscle Conditioning While Holding The Stretched Band Steady

Now when you hold the stretched band without moving, what happens after just a few seconds, if the resistance is high enough, is your muscles begin to weaken and soon after begin to shake and start to give out as you fight to maintain this position.

This shaking, however slight, does two things:

First, it instantaneously and continuously changes the length of the band, however small those changes are, and **second**, it changes the angle of the band's force as well.

The level of resistance and direction of force the band now supplies back to your muscle is also changing instantaneously and continuously, and again, this is because the force supplied by the band is entirely dependent on its length and the angle in which it is being used.

As a result, these ongoing and continuous small changes in force and direction by the band **totally disrupts the isometric contraction that you are trying to hold** and it sets off all of your proprioceptors and stretch receptors within your muscles and tendons into a completely unique and different pattern.

Now this causes one of two things to happen in your muscles, and **both are fantastic for your muscle speed and coordination**:

First, It causes an immediate over-stimulation of the muscle fibers if the resistance drops and you have to make up for it.

Or **second**, it causes an immediate understimulation of the muscle fibers if the resistance increases and you have to lighten up a bit.

This goes on continuously for as long as you fight to maintain a steady position. These ongoing

and small changes in the resistance bands force and direction are constantly being perceived by stretch receptors in your muscles and tendons and **it causes them to have to instantly adjust themselves to re-establish the set isometric resistance point.**

This also recruits a lot of the surrounding muscles to help stabilize joints. And now all of **these adjustments in muscle contractions occur at such an incredibly higher rate** than simply trying to move a dumbbell as fast you can through its full range of motion.

And if you held the dumbbell in a fixed isometric position the resistance of the dumbbell will always remain the same and the direction of its force is always the same too; which is straight down to the ground.

However, again, the bands resistance is based on the length when it is stretched, even if just millimeters, and it's force also changes based on **THE ANGLE IN WHICH IT IS ATTACHED** even within a degree and because it always pulls back toward its attachment, it rarely acts straight down to the ground like the weight.

This means that the direction of force as well as the amount of force will continuously change, even with small uncontrolled movements, like millimeters, in the muscles and joints holding it.

This forces your muscles to learn to quickly react and adjust to these changing forces.

So now what you have to deal with is **MULTIDIMENSIONAL** force acting on your muscles, not a simple static weight force.

Any tiny change in muscle movement, **WHETHER ITS** slightly UP, DOWN slightly to the LEFT OR RIGHT OR ANY COMBINATION OF THESE, instantaneously alters the amount of resistance given back by the band and it alters it's direction of force as well.

And again, the proprioceptors in your muscles and tendons constantly perceive these changes in force and direction and cause the muscles to respond entirely differently than with other training routines.

Muscles and Tendons Quickly Become Stronger and Faster

This is how the resistance band with an isometric training strategy will give your muscles a more complete and mature development in a way that cannot be attained using weights or any other training techniques.

This is why athletes are quickly and dramatically improving in speed, precision and coordination in their sports skills in a short amount of time.

3 Additional Advantages to Isometrics With the Band

In addition to all this, here are three additional reasons athletes will improve their performance by using the resistance band with an isometric contraction strategy:

First, because each recruitment pattern of the muscle fibers holding the band is now new for your muscles, the forces supplied by the band will instantly expose your muscle's weakness and lack of coordination on a much deeper level than you normally experience with other routines.

It also creates new neuro-pathways, or muscle memory, within the muscle forcing it to immediately get stronger and with more precision and coordination than ever before.

Second, when you train the way we show you in our training manuals, the mass and weight of the muscle typically does not significantly increase. If it did this, extra weight on your body could potentially offset the gains in speed. So, whenever you are able to increase a muscle's strength, quickness and coordination without adding any additional body weight, your speed and athletic performance will automatically increase.

And **third**, now imagine applying this strategy in not only conventional movements, as in the biceps example here, but also in ways and body positions you may have never thought of before or were perhaps limited to because of fear of injury from weights. When you do this to your muscles, you will immediately expose and then eliminate even greater weaknesses in them leading to a vastly improved athletic performance.

Athletes Are Getting Superior Results

This is why if you have read through some of the testimonials athletes are reporting back with what sounds like crazy, hard to believe increases in their running speed, jumping ability and kicking distance after just a few days of training, but this is exactly the kind of results that would be expected.

So, **here are the steps you can take right now to quickly improve your speed**, and outperform your personal bests in running, jumping and kicking and reach your athletic goals:

1. **Get your own copy of the Run Faster With The 15 Minute Speed Trainer program here:** www.15MinuteSpeedTrainer.com
2. Read through the program manual, follow all of the instructions for each exercise and do them according to the training schedule.
3. You should then start seeing results in 2 weeks. Continue doing the exercises for as long as you see improvement and get additional bands when you need more resistance.

What To Expect

Following those steps will transform you into a better athlete. You will be beating all of your personal bests, even if you are already an all-star performer right now.

Your speed and new abilities will get the attention of coaches, scouts, teammates and others plus you will have more confidence in yourself, feel more in control and certainly have a lot more fun playing your favorite sport.

I hope you found this information helpful and I look forward to hearing from each and every one of you.

Always glad to help!

Dr. Larry Van Such

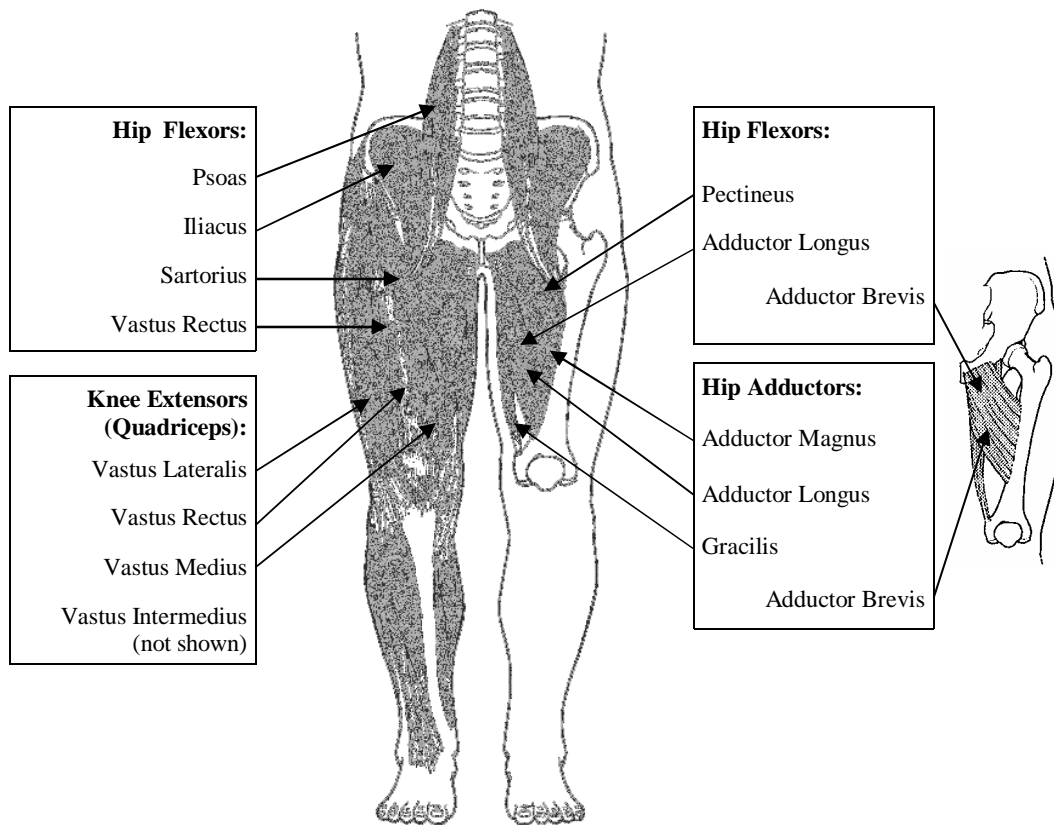


Figure 1-5.

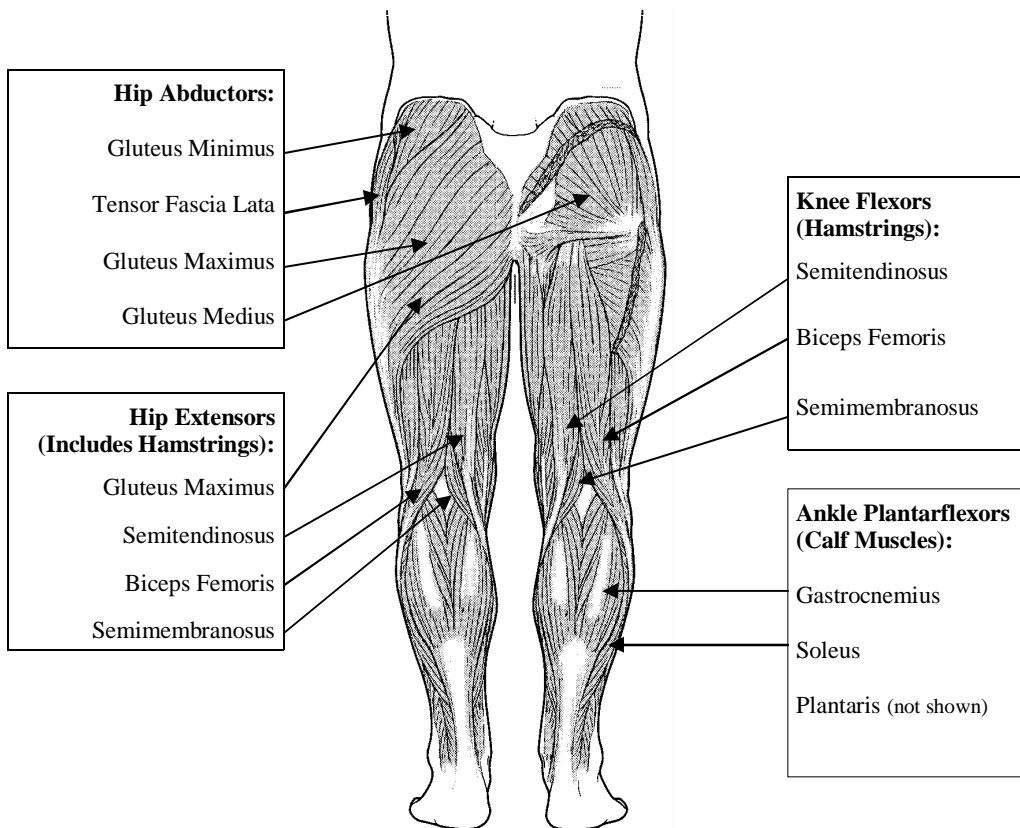
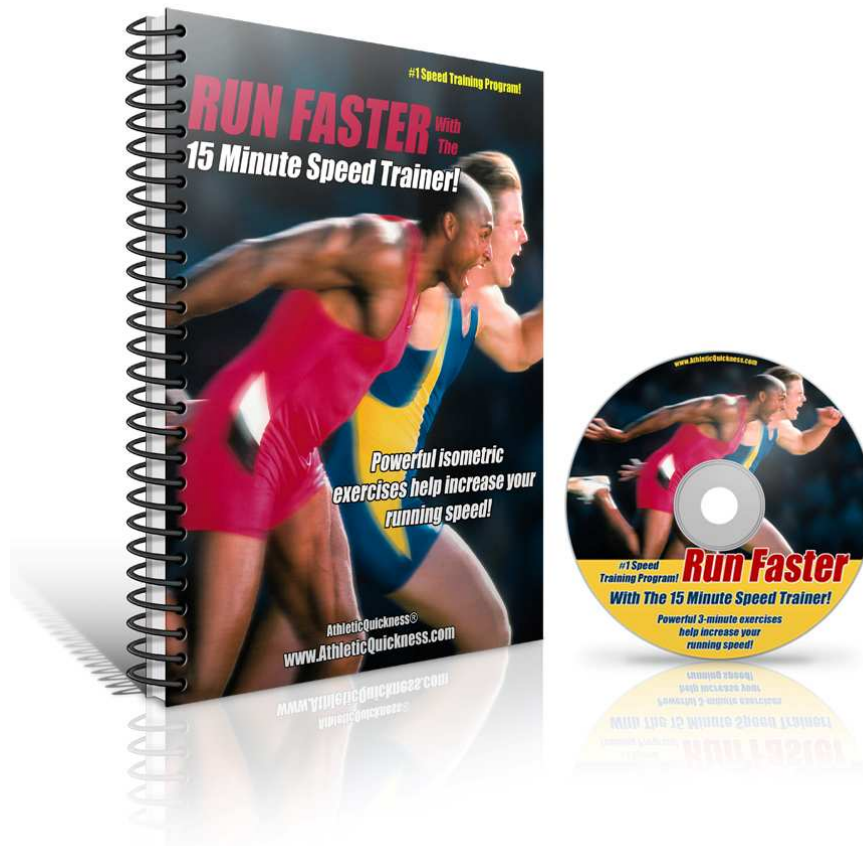


Figure 1-6.



Order Now

<http://www.15MinuteSpeedTrainer.com>