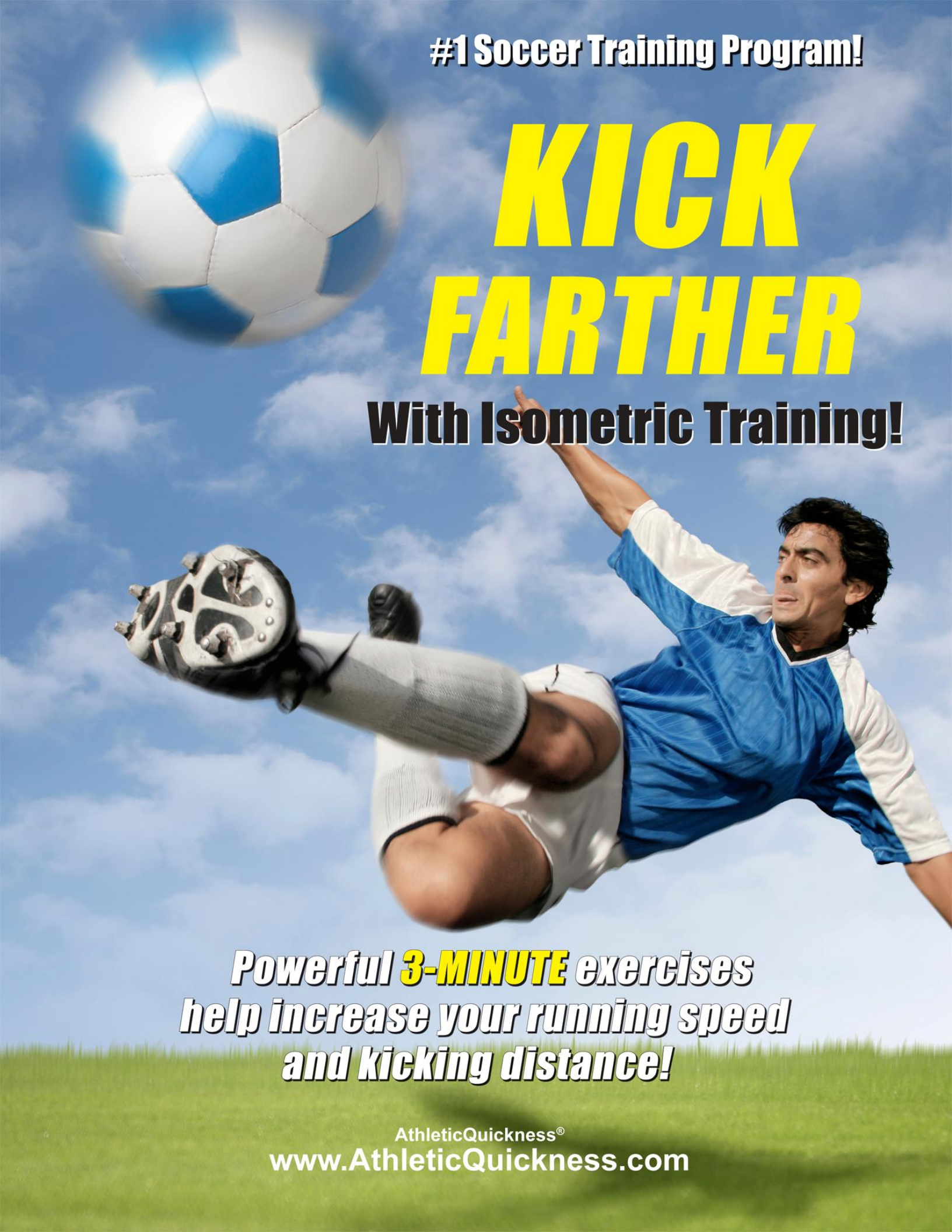

#1 Soccer Training Program!
KICK FARTHER
With Isometric Training!
Powerful 3-MINUTE exercises
help increase your running speed
and kicking distance!
AthleticQuickness®
www.AthleticQuickness.com

Kick Farther
With
Isometric Training!

by
AthleticQuickness®

"We'll bring you up to speed!" ®

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.

Published by Dr. Larry Van Such.

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

Title: Kick Farther With Isometric Training!

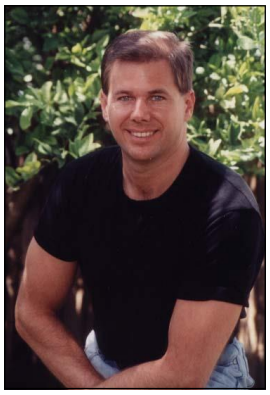
ISBN: 0-9679070-6-3

Credits:
Front and Back Cover Photos by: www.Istockphoto.com/Grafissimo. ©2010.
Interior page photo by: Clive Brunskill. FPG International. ©2010.
Anatomical Artwork by: Lifeart and/or MediClip image. Lippincott, Williams & Wilkins. All rights reserved. ©2010.

Printed in the United States of America.

Table of Contents

Introduction



Dr. Larry Van Such, DC, BE

Dear Athlete,

Thank you for your interest in the *Kick Farther With Isometric Training!* program. It is my sincere desire that this program meets your needs.

Isometric training, with the help of the resistance band and its dynamic and elastic properties, is fast becoming one of the most popular ways to train your muscles for strength and speed.

This program is ideal for all soccer players looking to increase their kicking distance and power. It is also ideal for football punters, field goal kickers and kickoff specialists looking to increase their distance and hang time.

The exercises in this program are also designed to increase your running speed, so you can be sure to develop the speed and quickness necessary to make game changing plays.

Once you start incorporating the strategies contained in this program into your current training schedule, you too will join a select group of athletes who have gained an immediate advantage in their sport.

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

Sincerely,

Dr. Larry Van Such, DC, BE

Section 1

Isometric Training
Muscular Contraction
The Resistance Band

ISOMETRIC TRAINING

The word ISOMETRIC is defined as follows: ñIsoò means equal or the same, and ñmetricò means length. Combining these two definitions we get ñequal or the same lengthò. Isometrics, as it pertains to muscle training, involves tensing muscles against other muscles or against an immovable object while the length of the muscle remains unchanged. For isometric training to be effective, this muscular tension must be maintained over a certain period of time. Therefore, isometric training is best defined as follows:

The sustained contraction of a muscle over a certain period of time where the length of the muscle remains unchanged.

The following are a few examples of an isometric contraction:

Example 1. Take a 20 pound weight and perform a biceps curl. Hold a position halfway between the repetition for 10 seconds. The length of your biceps muscle doesnôt change during this time. A force is still being applied. See Figure 1-1 below:

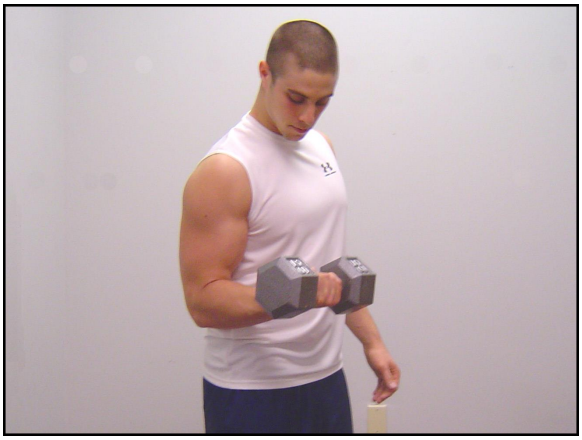


Figure 1-1.

Example 2. Push against a wall for 10 seconds. The wall doesnôt move and neither does the length of the muscles in your arms pushing against it. A force is still being applied. See Figure 1-2 below:

Figure 1-2.

Isometric training has been around for a long time, and so it is nothing new. Many extraordinary results in muscle strength have been achieved in a very short period of time with this type of training. However, because of the number of new training products and techniques on the market today, its use by athletes is often overlooked.

MUSCULAR CONTRACTION

In order for you to appreciate the value of isometric training, it will be necessary to briefly discuss some basic anatomical principles of muscular contraction. To start with, all skeletal muscles consist of three main fiber types. These fiber types are listed below:

1) Slow twitch fibers - Responsible for the endurance and strength of a muscle.
2) Fast twitch fibers - Responsible for the speed and strength of a muscle.
3) Intermediate twitch fibers - Possess qualities of both slow and fast twitch fibers.

In most muscles, these fibers are intermingled. However, there is usually a predominance of one or the other. For example, in postural muscles of the spine, the slow twitch fibers dominate. This is because slow twitch fibers can undergo extensive repetitive contractions without fatigue. In non-postural limb muscles like the arms and legs, the fast twitch fibers dominate. This allows for powerful forces to be generated over a short period of time.

All of these fiber types are arranged into groups known as *motor units*. A motor unit is defined as one motor neuron and all the muscle fibers it supplies. There are many motor units within the overall muscle. When a muscle begins to contract, an action potential is carried down the motor neuron across the motor endplate to the muscle fibers it supplies. Initially, only some of the motor units become active. As the demand on the muscle increases, more and more motor units are recruited to help support this demand. As the demand on the muscle decreases, the number of motor units also decreases. This is a general description of muscular contraction.

With isometric training, a muscle opposes some form of resistance and is contracted to a certain length and then held for a certain period of time, usually 10 seconds or more. There are no repetitions required here as in weight training.

The biggest advantage to this type of training is twofold. *First,* by forcing your muscles to hold a position for a certain length of time, your body starts to recruit more and more motor units to help maintain this contraction. Motor units that are rarely exercised within a muscle are now brought into use, perhaps for the first time. *Second*, the motor units that are recruited are forced to hold their contraction continuously, time after time, until your muscles achieve a state of maximum intensity safely and effectively. The end result is that the entire muscle matures very quickly.

THE RESISTANCE BAND

One of the most popular forms of exercise training today deals with what is known as resistance training. Essentially most forms of training deal with some type of resistance aid (weights, etc.) but the way the term ñresistance trainingò is used today means to utilize things such as rubber bands or flexible pieces of metal to provide you with a simulated form of weight training. One of the *new* and more *popular* types of resistance training aids is what is known as the resistance band or exercise band. See Figure 1-3 on the next page:

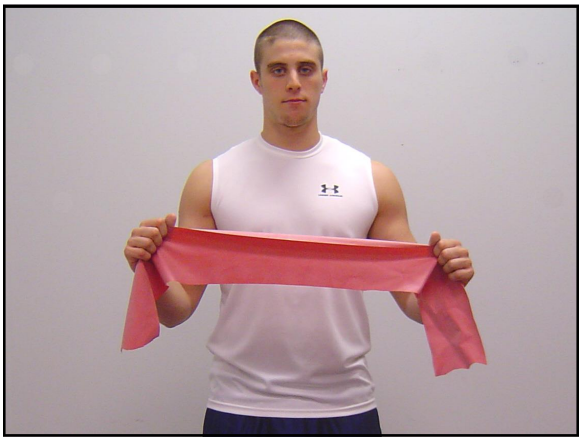


Figure 1-3. The resistance or exercise band.

This is an outstanding product that has a very unique physical property known as a *hyper-elastic potential.* This means that the more you stretch the band the more resistance you will have to apply. The amount of resistance found within an elastic band is therefore a function of its length when stretched. When used properly, the resistance band is the ideal speed training device.

Hereôs a very basic idea of how and why it works: imagine first that you are performing a biceps curl, much like that shown in Figure 1-1 on page 2, except that instead of holding a weight, you are holding one end of a resistance band with the other end either attached to the floor or perhaps secured under your foot. Since we are using an isometric contraction, this position with the elbow flexed at about 90 degrees is held for 10-15 seconds without moving it.

While holding this position, imagine the band is already stretched and exerting a significant amount of force back into your biceps muscle. For some, this may be a 40 lb equivalent force, for others, perhaps more. After a few seconds, your biceps muscle will naturally start to weaken. When this happens, your body will begin to recruit more and more motor units to help keep your arm and elbow in this fixed position.

Eventually, and rather quickly if the resistance is high enough, you get to the point where you can no longer hold the band still and maintain the same amount of force efficiently. The muscle has become over-stimulated This causes your arm to give out or start to shake a little, since the over-stimulated muscle weakens and your coordination dissipates. This is one of the desired states for your muscles to be in to train them for speed and quickness.

These movements in your elbow and arm, however small and in whichever direction, instantaneously alters the amount of force that the resistance bands supply. Unlike weights, which always have the same amount of resistance, the bandôs resistance is variable and changes as its length changes. Even small changes in distance, whether greater or less than the starting position, will affect the amount of resistance your muscles exert.

Your muscles constantly perceive these small changes in resistance and alter their typical recruitment pattern of motor units to try and maintain the held position. This new pattern is considerably different than that observed while undergoing a similar exercise with a 40 lb dumbbell, because its resistance is not subject to a change in position.

This is a great benefit to athletes since with each new recruitment pattern of motor units a muscleôs weakness and lack of coordination on a much deeper level than normally experienced, is instantly exposed, forcing the over-stimulated muscle fibers to immediately get stronger and with more precision than before. Furthermore, the mass of the muscle typically does not significantly increase with this type of training which, if it did, could potentially offset these gains.

So, whenever you are able to increase a muscleôs strength and coordination without adding any additional body weight, your speed, quickness and athletic performance will automatically increase. This again is just one of the reasons how and why this type of training works.

Imagine now applying this strategy in not only conventional ways as in the biceps example here, but also in ways and positions you may have never thought of before. When you do this to your muscles, you will immediately expose and then eliminate greater weaknesses in them leading to a vastly improved athletic performance.

Therefore, throughout this entire program, we will be *using the resistance band with an isometric training strategy to increase the strength, coordination and contraction rate within specific muscles located throughout your entire body* - all of which play important roles in the running and kicking processes. So get ready, you are about toé

Kick Farther and Run Faster With Isometric Training!

Section 2

Instructions
How To Get The Most From This Program

INSTRUCTIONS

To ensure the greatest amount of your success with this program, please read through this section very carefully and refer back to it as often as needed.

1. Isometric training involves no repetitions. As mentioned in Section 1, isometric training is *the sustained contraction of a muscle over a certain period of time where the length of the muscle remains unchanged.* In other words, unlike weight training where the lengths of your muscles are always changing, as in in performing a set of ten biceps curls, isometric contractions are typically held at a point about halfway between a full repetition and then this position is held for 10-15 seconds.

Using Exercise #1 as an example, when you watch the video you will notice that Figure 2-1 shown below represents the final holding position for this exercise and is to be held for 10-15 seconds - the right leg does not repetitively go forward and back, again and again, as you would normally do with weights. This is very important because isometric training using the resistance band is a very efficient way to train your muscles for speed and strength and. as a result, all of the exercises outlined in this program are done this way.

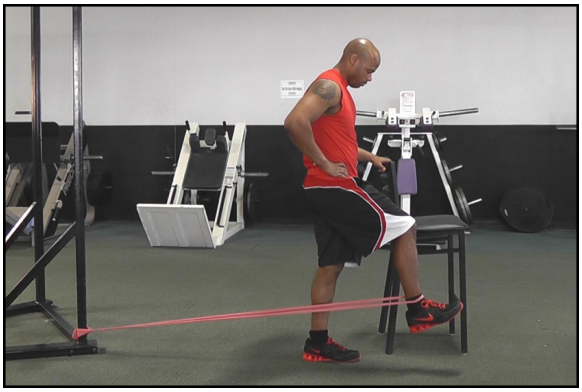


Figure 2-1. Final holding position for Exercise #1 with the right leg.

2. Attaching the resistance band. All of the exercises require you to attach your bands around an immovable object such as a pole. See again Figure 2-1 above. When it is time for you to attach your bands to a similar object, here are two simple rules to follow: 1) make sure the object you tie the band to is really immovable relative to your own strength, and 2) make sure the object you tie the band around does not have any rough or sharp edges as this will cause your exercise band to tear. Serious injury may result if the exercise band breaks and snaps back and hits you.

If you have trouble locating a place to attach your band, you can make and use a simple door attachment described in item 8, page 9, in this section. The hinges on a typical door frame are excellent reference points to anchor your band to and should be strong enough to withstand the amount of force you will be using during these exercises.

3. How much effort should you exert for each exercise? Isometric contractions can be done with any amount of force but typically they are done using between 70-80% of your maximum strength. The best way to gauge this amount of effort is as follows: when you start an exercise, if you can easily hold the final position for a lot longer than the recommended 10-15 seconds, then you are not using enough effort. If you feel like you need a break around the 10 second mark (similar to the breaks taken between weightlifting sets), then you are exerting the proper amount of force.

4. Proper positioning. All of the exercises will require you to be at a certain distance away from where the band is tied in order to achieve enough resistance. Look back to Figure 2-1 on the previous page. If this exercise is too easy when you try it, then you will need to move farther away from where your band is tied to stretch it (creating more resistance), or use a second band at the same time to increase the resistance (explained next in item #5), or both. If this exercise is too hard when you first try it using only one band, then you will need to move closer to where the band is tied. This shortens the band to reduce the resistance. Getting into the proper position is a simple thing to do. It is also critical to achieving good results with this program. As you become familiar with all of the exercises, you should be able to judge for yourself the best position to be in to make the exercises most effective for you.

5. Doubling-up the resistance. There will also be times when the entire length of the band is needed but the resistance it can supply is still not strong enough. Therefore, you can use two bands and double-up the resistance. Look below at Figure 2-2a. This is a similar set-up for Exercise #1 (see also Figure 2-1 on the previous page). When you perform this exercise, if it appears too easy to hold this position, then using a second band will help make it more difficult. Simply tie a knot in a second band and attach it next to the other. This is shown in Figure 2-2b. This is the same exercise except two bands are used to increase the resistance. Note: the bands do not have to be separated apart from each other as seen in Figure 2-2b. This is only shown this way for clarity. The bands will likely superimpose together around your ankle during the actual exercise.

Figure 2-2a. Final holding position for Exercise #1 using one band.

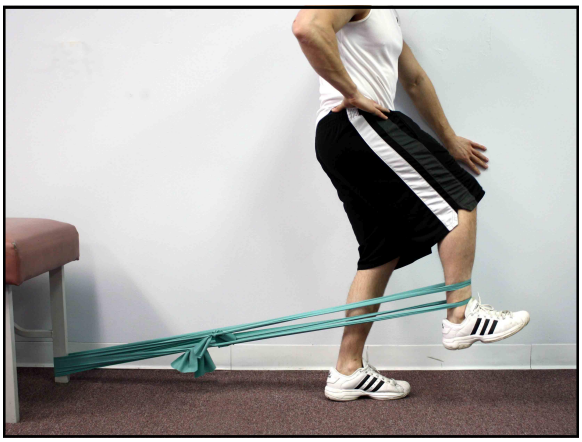


Figure 2-2b. Final holding position for Exercise #1 using two bands.

This technique of using more than one band to increase the resistance is very common with isometric training. You can do this for any exercise that appears too easy.

6. You can use bands with a higher resistance level. Each band has a specific color that corresponds to a particular resistance level. Depending on where you buy your bands, the general rule is the lighter the color, the lower the resistance and the darker the color, the higher the resistance. Since this may not always be the case, it is best to know the resistance level of the bands ahead of time before you buy them. By using a band with a higher resistance you should be able to exercise well within the physical limits of that particular band.

7. Maintaining good balance during each exercise. Since most of the exercises are performed using one leg at a time you may find that your balance is really being tested in the

beginning with this type of training. Its important to maintain proper form with each exercise and finding something to balance against while you do them is essential for your success.

In Figure 2-1, page 7, the athlete is shown balancing against a chair and in Figures 2-2a and 2-2b, page 8, the athlete is balancing against a wall. If you are doing these in your home, walls make good places to balance against since they provide a sturdy support should you need it. However, be careful there are no items on the walls such as pictures, mirrors, etc. that can slide if you happen to find yourself losing your balance and end up placing your hands on them.

If you are doing these exercises in a gym and are attaching your bands to say, one piece of equipment, you might also look for a second nearby machine that can also serve as a good support for your hands. Gym equipment makes perhaps the best places to attach your bands to. This is because the equipment is typically immovable relative to your own body strength and most of the equipment is finished with smooth steel that wonôt cut your bands and cause them to tear. If you have access to gym equipment it is suggested that you use it. As a cautionary note, if you choose to incorporate gym equipment into your set-up, make sure you keep your hands away from any moving parts on the equipment (pulleys, cables, hinges etc.) that you may be using for balance to avoid injury.

8a. Creating a door attachment. There will be some who purchase this program who find themselves faced with the challenge of locating a safe and convenient place to attach the band to perform a specific exercise. The door attachment will solve this problem.

The hinges on a typical door frame provide very good locations to anchor your bands to for all of the exercises shown in this program should that be your only option. They are ideally spaced for exercises where the bands need to be attached below your knees or at waist level. Hereôs how to make your door attachment if you have no other place to attach your bands:

STEP 1. You will need to locate about a five foot piece of *nylon rope*, preferably 1/8ò diameter and not any larger. You can find this at your typical home improvement store. Nylon rope is best since it compresses better which is needed to securely attach it to the door frame as well as to close the door completely. See Figure 2-3 below:

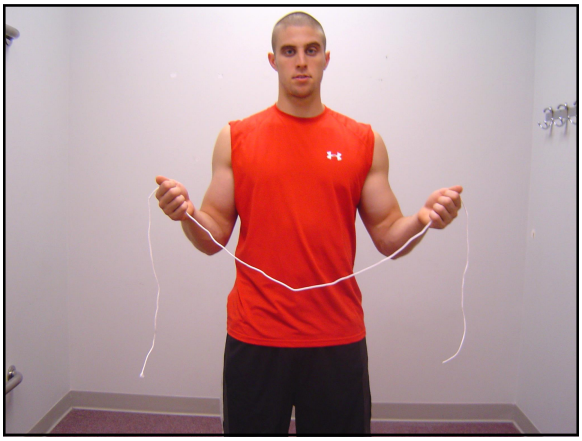


Figure 2-3. Five foot piece of nylon rope.

STEP 2. Fold the rope in half so as to form two ropes about 2 1/2 feet long each. You donôt need to cut the rope in half. See Figure 2-4a. Then fold these in half again so as to form four ropes. See Figure 2-4b.

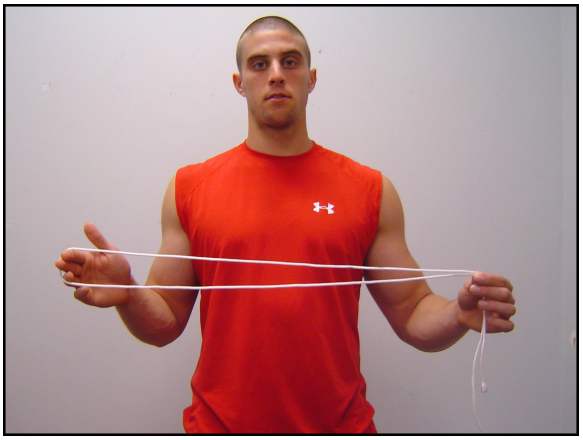


Figure 2-4a. Rope folded in half to make two strands about 2 1/2 feet long.

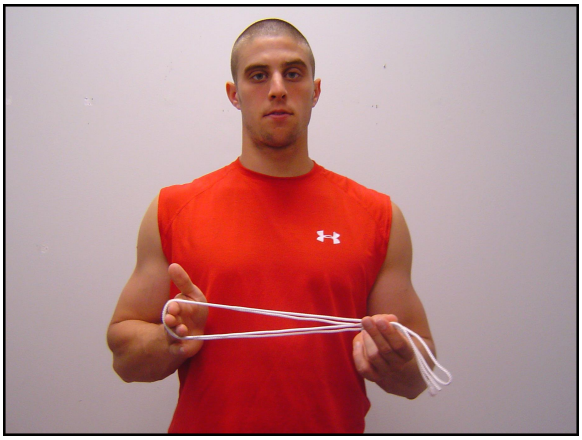


Figure 2-4b. Rope folded in half again to make four strands a little more than a foot long each.

STEP 3. Tie a knot in these four strands near the middle as shown leaving yourself with a loop that is at least six inches long. Your door attachment is now complete. See Figure 2-5 below:

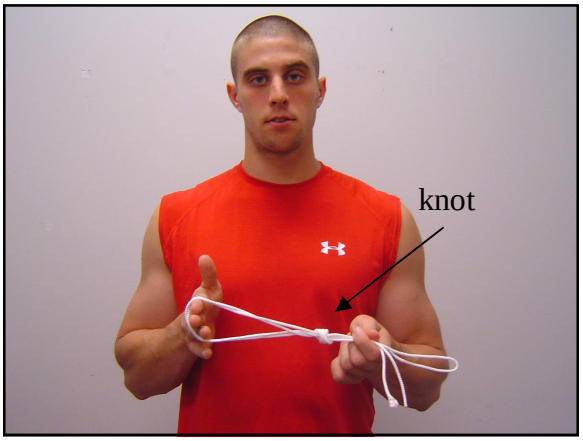


Figure 2-5. Door attachment complete.

8b. Attaching your door attachment. Next, we will show you the proper way to attach it to the door frame. The first thing you need to pay attention to is which way the door you plan on attaching your band to opens. Most doors open *in* to a particular room and not *out* into the hallway. This is important to know since it is always safer (and recommended) that exercises be performed on the opposite side of where the door opens. This will be the hallway in most situations, but not always. Note: the side of the door frame where the hinges are on, left or right, doesnôt matter.

STEP 1. In Figure 2-6a, the door opens into a room. Feed your door attachment with some of the loose ends first, through the door and above the *middle* hinge in this example so that the knot is resting on it. See Figure 2-6a.

STEP 2. Close the door until it snaps shut so that it cannot be opened unless you turn the door knob. See Figure 2-6b. This will keep your door attachment fastened securely between the door and the frame. This is also why you want to use nylon rope, which is fairly compressible, as well as not to exceed the 1/8 inch diameter. Anything larger may prevent closing the door or cause damage to it if forced too much.

STEP 3. The exposed loop *without* any loose ends on the other side of the door (the hallway in this example) is now ready to have a band attached to it. See Figure 2-6c.

STEP 4. Band attached to loop with slip knot and ready for use. See Figure 2-6d.

Figure 2-6a. View from *inside* the room. Door slightly open.

Figure 2-6b. View from *inside* the room. Door closed tightly shut.

Figure 2-6c. View from *outside* the room. Loop exposed - ready for band.

Figure 2-6d. *Outside* the room. Band attached to loop with slip knot.

8c. General rules regarding your door attachment.

1) Attach the door attachment *below the bottom hinge* for all leg exercises. This will prevent the attachment from possibly sliding during the exercise plus it will likely place the band lower towards the ground which provides a better angle of stretch during the exercises.

2) Attach the door attachment directly above the middle door hinge (just like the example above) for Exercises #7 and #8 for your lateral spine rotator muscles.

3) Periodically check your door attachment for any wear and tear and create a new one when necessary to prevent accidental breaking during an exercise.

HOW TO GET THE MOST FROM THIS PROGRAM

Below are several tips on how to get the most from this program. Review them as often as necessary as each of these tips holds a key to your success.

Tip #1. Perform approximately five minutes of light stretching before starting these exercises.

Tip #2. Use a watch or clock with a clearly visible second hand so that you can accurately time your isometric exercises.

Tip #3. The final position for each exercise should be held for 10-15 seconds. The amount of effort you should be exerting during this time should be between 70-80% of your maximum strength.

Tip #4. Isometric exercises are to be done with normal breathing. Do not hold your breath during the exercises because this may cause a sudden increase in blood pressure and/or light-headedness.

Tip #5. If you experience any abnormal discomfort during these exercises, ease off just a little bit. If the discomfort persists, consult with your physician before continuing.

Tip #6. Perform each exercise according to the *Weekly Training Schedule*.

Tip #7. It doesn't matter what time of day you exercise however, your body will respond best if you choose the same time each day to train.

Tip #8. Pay close attention to the way your body position is shown for each exercise, because correct positioning is needed to isolate specific muscle groups.

Tip #9. Periodically check your resistance bands for any wear and tear. Replace them when necessary to prevent them from breaking during an exercise.

Tip #10. To reduce the resistance for a given exercise, create a longer loop with your band, use bands with less resistance and/or position yourself closer to where the band is attached. Positioning yourself closer means the band will not be stretched as much thereby reducing the resistance.

Tip #11. To increase the resistance for a given exercise, use two bands together, use bands with more resistance and/or position yourself further away from where the bands are attached. Positioning yourself further away will cause the bands to stretch a little more adding to their resistance.

Tip #12. Always train within the physical limits of the band. What this means is, no matter how much effort you are exerting for a given exercise, the exercise band should still be capable of stretching a little further. If the band is stretched to its maximum, you will essentially turn the band into a static rope or cable, incapable of returning any hyper-elastic force back. This greatly reduces its effectiveness. If this situation ever occurs, see Tip #11 on how to rectify it.

Tip #13. The exercises demonstrated in this program are meant to be physically challenging. If you find that your initial attempt with an exercise is too easy, you should either add another resistance band to the exercise, use a stronger band and/or reposition your self further away from your band attachment to stretch the bands. Remember, holding the final position for these exercises using 70-80% of your maximum strength is a significant amount of effort to exert over a 10-15 second period of time before wanting to take a rest.

Tip #14. Gym equipment provides safe and effective places to attach your bands since they are relatively immovable and do not typically possess any rough or sharp edges that may accidentally cut you band. If you have access to such equipment it is suggested that you use it.

Tip #15. If you have a game scheduled and have been actively performing most, if not all, of the exercises in this program for at least two consecutive weeks prior to competition, you may want to allow yourself two full days of rest from these exercises before the competition.

IMPORTANT NOTICE. Consult with your physician before beginning this exercise program.

Section 3

Exercises #1-#10

Exercise #1 Workout Summary
Muscles used: Hip Flexors, Knee Extensors

The final holding position for the right leg is shown in Figure 1a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed with your left leg as shown in Figure 1b.

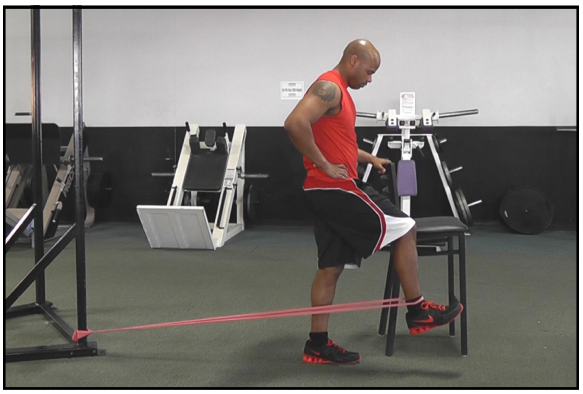


Figure 1a. Final holding position for right leg.

Figure 1b. Final holding position for left leg.

Repeat this process two more times giving you a total of three ósetsô for the right leg and three for the left as shown in the table below:

Exercise #1

Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) The exercises demonstrated in this program are meant to be physically challenging so if you find that your initial attempt with an exercise is too easy, you can either take an extra step away from the pole to further stretch the band, use a band with a higher resistance level, or use two or more bands at the same time. Remember, holding the final position for these exercises using 70-80% of your maximum strength is a significant amount of effort to exert over a 10-15 second period of time before wanting to take a rest. 2) It doesnôt matter what time of day you exercise however, your body will respond best if you choose the same time each day to train.

Exercise #2 Workout Summary
Muscles used: Hip Extensors, Knee Flexors

The final holding position for the left leg is shown in Figure 2a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed with your right leg as shown in Figure 2b.

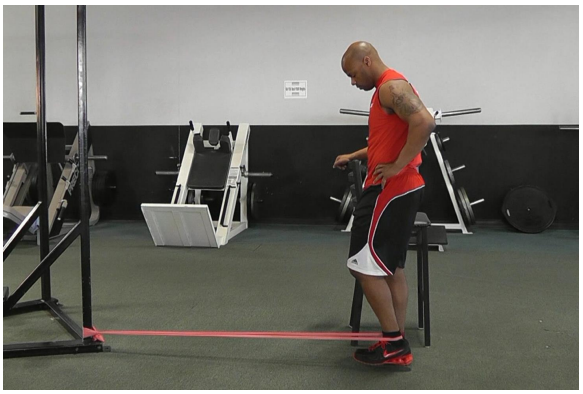


Figure 2a. Final holding position for left leg.

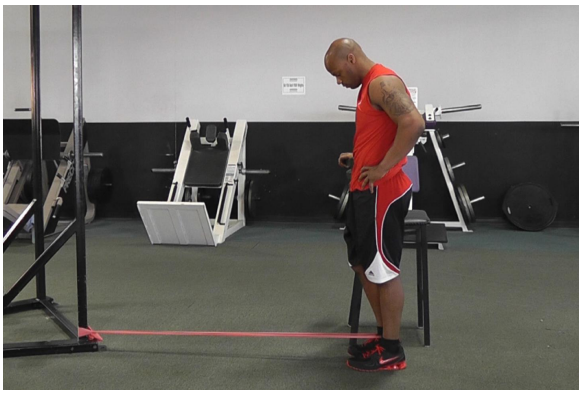


Figure 2b. Final holding position for right leg.

Repeat this process two more times giving you a total of three ǿrepsô for the left leg and three for the right as shown in the table below:

Exercise #2

Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) The key to this exercise is to keep the ankle that is off the ground, dorsi-flexed. This means your foot and toes are flexing up and back towards your shin. This helps prevent too much knee flexion (as in performing a leg curl) and forces the hamstring muscles to function more as hip extensors rather than knee flexors. 2) Use a watch or a clock with a clearly visible second hand so that you can accurately time your exercises.

Exercise #3 Workout Summary
Muscles used: Hip Adductors

The final holding position for the right leg is shown in Figure 3a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed with your left leg as shown in Figure 3b.

Figure 3a. Final holding position for right leg.

Figure 3b. Final holding position for left leg.

Repeat this process two more times giving you a total of three ósetsô for the right leg and three for the left as shown in the table below:

Exercise #3

Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) It doesnôt matter what time of day you exercise however, your body will respond best if you choose the same time each day to train. 2) To increase the resistance, step further away from where the band is tied or use two bands together. 3) Use a watch or a clock with a clearly visible second hand, so that you can accurately time your exercises. 4) Try not to let the band slide too far up your leg while performing this exercise. 5) The final position for all the exercises should be held for 10-15 seconds. The amount of effort you should be exerting during this time should be between 70-80% of your maximum strength.

Exercise #4 Workout Summary
Muscles used: Hip Abductors

The final holding position for the left leg is shown in Figure 4a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed with your right leg as shown in Figure 4b.

Figure 4a. Final holding position for left leg.

Figure 4b. Final holding position for right leg.

Repeat this process two more times giving you a total of three órepsô for the left leg and three for the right as shown in the table below:

Exercise #4

Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) Remember to always train within the physical limits of the band. What this means is no matter how much effort you are exerting for a given exercise, the resistance band should still be capable of stretching a little further. If the band is stretched to its maximum where there is no more stretch left in it, you will essentially turn the resistance band into a static rope, or cable, incapable of returning any elastic force back. This greatly reduces its effectiveness. If this should happen to you, then watch the video on ñHow to increase resistanceò and use of the methods presented there. 2) If you experience any abnormal discomfort during these exercises, ease off just a little bit. If the discomfort persists, consult with your physician before continuing.

Exercise #5 Workout Summary

Muscles used: Hip Flexors (With Adductors) and Knee Extensors

The final holding position for the right leg is shown in Figure 5a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed with your left leg as shown in Figure 5b.

Figure 5a. Final holding position for right leg.

Figure 5b. Final holding position for left leg.

Repeat this process two more times giving you a total of three ―repsô for the left leg and three for the right as shown in the table below:

Exercise #5

Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) The exercises demonstrated in this program are meant to be physically challenging. If you find that your initial attempt with an exercise is too easy then you will need to increase the resistance by either adding in another resistance band, using a stronger band and/or repositioning yourself further away from where your band is attached to stretch it further. 2) All of the exercises recommend using between 70-80% of your maximum strength over a 10-15 second period of time. This is a significant amount of effort and the best way to gauge this is you should feel like you need to take a rest from the exercise around the 10 second mark. So when itôs your turn to do an exercise, if you can easily hold the final position for a lot longer than the recommended 10-15 seconds, such as 20 seconds or more, then you do not have enough resistance and will need to increase it.

Exercise #6 Workout Summary
Muscles used: Hip Flexors and Knee Extensors

The final holding position for the right leg is shown in Figure 6a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed with your left leg as shown in Figure 6b.

Figure 6a. Final holding position for right leg.

Figure 6b. Final holding position for left leg.

Repeat this process two more times giving you a total of three ócepsô for the left leg and three for the right as shown in the table below:

Exercise #6

Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) Remember to always train within the physical limits of the band. What this means is no matter how much effort you are exerting for a given exercise, the resistance band should still be capable of stretching a little further. If the band is stretched to its maximum where there is no more stretch left in it, you will essentially turn the resistance band into a static rope, or cable, incapable of returning any elastic force back. This greatly reduces its effectiveness. If this should happen to you, then watch the video on ñHow to increase resistanceò and use of the methods presented there. 2) If you experience any abnormal discomfort during these exercises, ease off just a little bit. If the discomfort persists, consult with your physician before continuing.

Exercise #7 Workout Summary
Muscles used: Lateral Spine Rotators

The final holding position for the first half of this exercise is shown in Figure 7a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed while turned in the opposite direction as shown in Figure 7b.

Figure 7a. Final hold position, first half of exercise.

Figure 7b. Final hold position, second half.

Repeat this process two more times giving you a total of three ‘repsô for this exercise in each direction as shown in the table below:

Exercise #7

Figure 7a	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 7b	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 7a	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 7b	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 7a	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 7b	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) Pay attention to the order in which to grab the band with your hands while performing this exercise. This will ensure that both arms are used effectively in holding the final position for each direction. 2) Isometric exercises are to be done with normal breathing. Do not hold your breath during the exercises because this may cause a sudden increase in blood pressure and/or light-headedness. 3) Use a watch or clock with a clearly visible second hand so that you can accurately time your isometric exercises.

Exercise #8 Workout Summary
Muscles used: Lateral Spine Rotators

The final holding position for the first half of this exercise is shown in Figure 8a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed while turned in the opposite direction as shown in Figure 8b.

Figure 8a. Final hold position, first half of exercise.

Figure 8b. Final hold position, second half.

Repeat this process two more times giving you a total of three órepsô for this exercise in each direction as shown in the table below:

Exercise #8

Figure 8a	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 8b	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 8a	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 8b	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 8a	Hold position for 10-15 seconds.	Rest 15 seconds.
Figure 8b	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) Remember to always train within the physical limits of the band. What this means is no matter how much effort you are exerting for a given exercise, the resistance band should still be capable of stretching a little further. If the band is stretched to its maximum where there is no more stretch left in it, you will essentially turn the resistance band into a static rope, or cable, incapable of returning any elastic force back. This greatly reduces its effectiveness. If this should happen to you, then watch the video on ñHow to increase resistanceò and use of the methods presented there. 2) If you experience any abnormal discomfort during these exercises, ease off just a little bit. If the discomfort persists, consult with your physician before continuing.

Exercise #9 Workout Summary
Muscles used: External Hip Rotators

The final holding position for the left leg is shown in Figure 9a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed with your right leg as shown in Figure 9b.

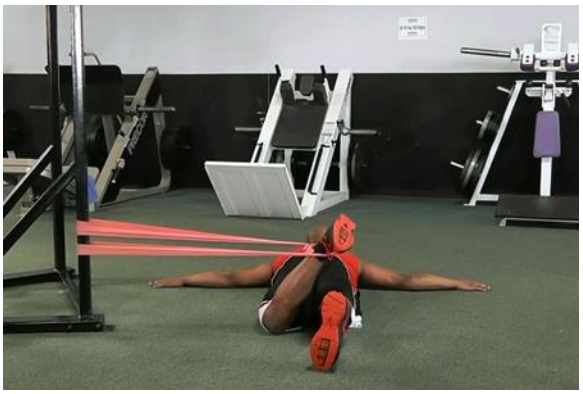


Figure 9a. Final holding position for left leg.

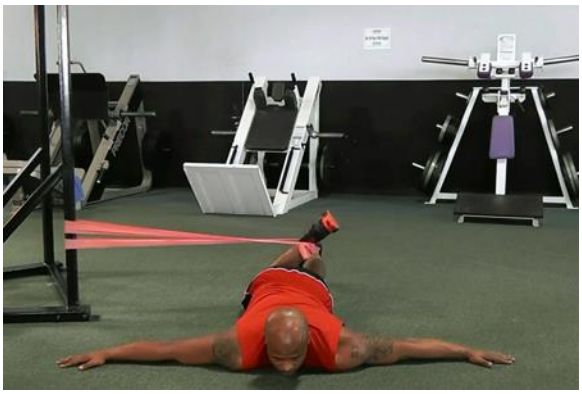


Figure 9b. Final holding position for right leg.

Repeat this process two more times giving you a total of three ósetsô for the left leg and three for the right as shown in the table below:

Exercise #9

Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) The reference point for this exercise is the front of the thigh that is seen touching the ground. As the foot crosses over the midline of the body, the front of the thigh is turned outward, away from the midline. This action is external, or lateral, rotation of the thigh and is caused by the external, or lateral, hip rotator muscles. 2) Isometric exercises are to be done with normal breathing. Do not hold your breath during the exercises because this may cause a sudden increase in blood pressure and/or light-headedness. 3) Use a watch or clock with a clearly visible second hand so that you can accurately time your isometric exercises. 4) Pay close attention to the way your body position is shown for each exercise, because correct positioning is needed to isolate specific muscle groups.

Exercise #10 Workout Summary
Muscles used: Internal Hip Rotators

The final holding position for the right leg is shown in Figure 10a. This position is held for 10-15 seconds using between 70-80% of your maximum strength. After a short rest, the same is then performed with your left leg as shown in Figure 10b.

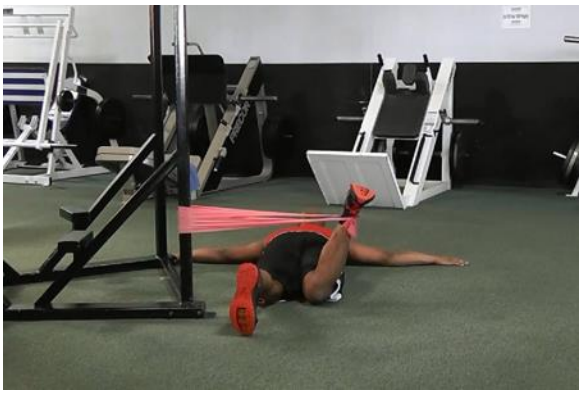


Figure 1b. Final holding position for left leg.

Figure 1b. Final holding position for left leg.

Repeat this process two more times giving you a total of three ŏrepsô for the left leg and three for the right as shown in the table below:

Exercise #10

Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Right Leg	Hold position for 10-15 seconds.	Rest 15 seconds.
Left Leg	Hold position for 10-15 seconds.	Rest 15 seconds.

TOTAL EXERCISE TIME: 3 Minutes Maximum

Training Schedule: The *Progress Chart* and *Weekly Training Schedule* located in Section 5 will guide you through all of the exercises and allow you to chart your progress along the way.

Training Tips: 1) The reference point for this exercise is the front of the thigh that is seen touching the ground. As the foot moves away from the midline of the body, the front of the thigh is turned inward, toward the midline. This action is internal, or medial, rotation of the thigh and is caused by the internal, or medial, hip rotator muscles. 2) Use a watch or clock with a clearly visible second hand so that you can accurately time your isometric exercises. 3) Pay close attention to the way your body position is shown for each exercise, because correct positioning is needed to isolate specific muscle groups.

Section 4

Muscles and Movements

HIP FLEXORS

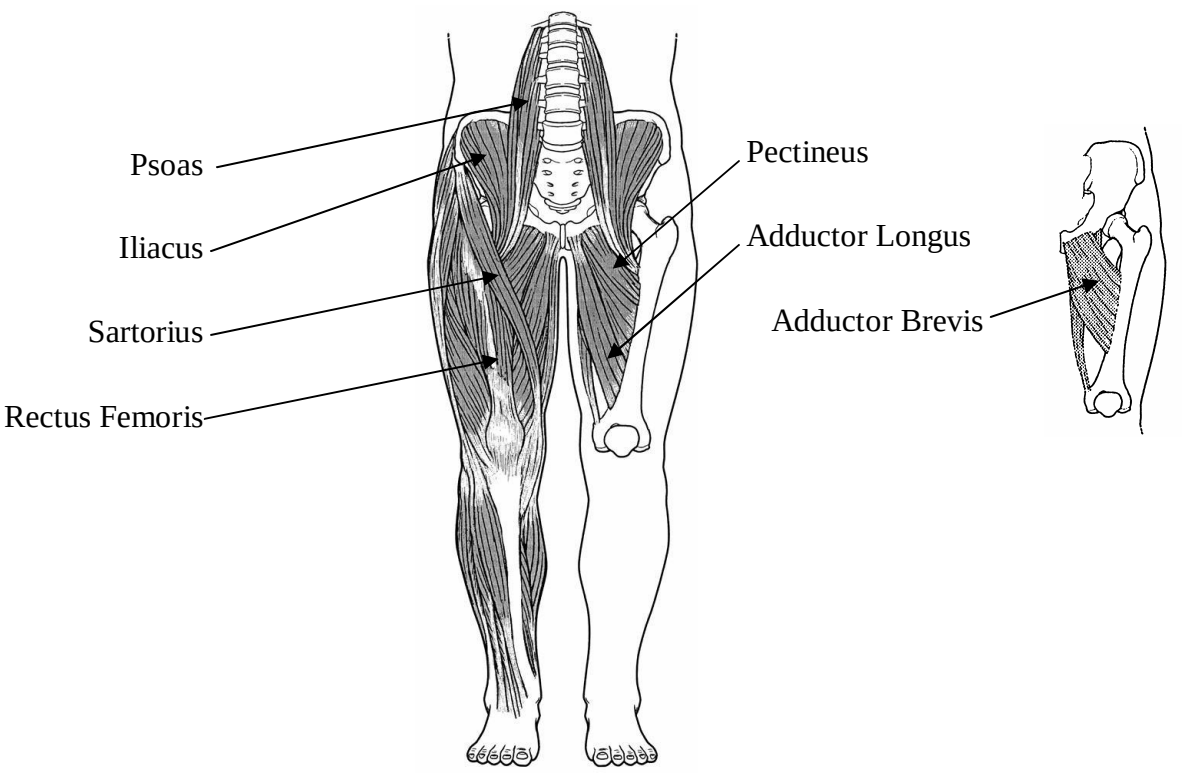


Figure 4-1a. Hip Flexors.

The hip flexor muscles (also known as thigh flexors) are a group of seven muscles located on both sides of the body. Their names are: 1) Psoas, 2) Iliacus, 3) Sartorius, 4) Vastus Rectus (a.k.a Rectus Femoris), 5) Adductor Longus, 6) Adductor Brevis and 7) Pectineus. See Figure 4-1a above.

The hip flexors main function is to flex the thigh upon the pelvis. This occurs during activities such as running, jumping, and walking. This is illustrated below in Figures 4-1b and 4-1c.

Figure 4-1b. Neutral hip position.

Figure 4-1c. Hip flexion.

HIP EXTENSORS

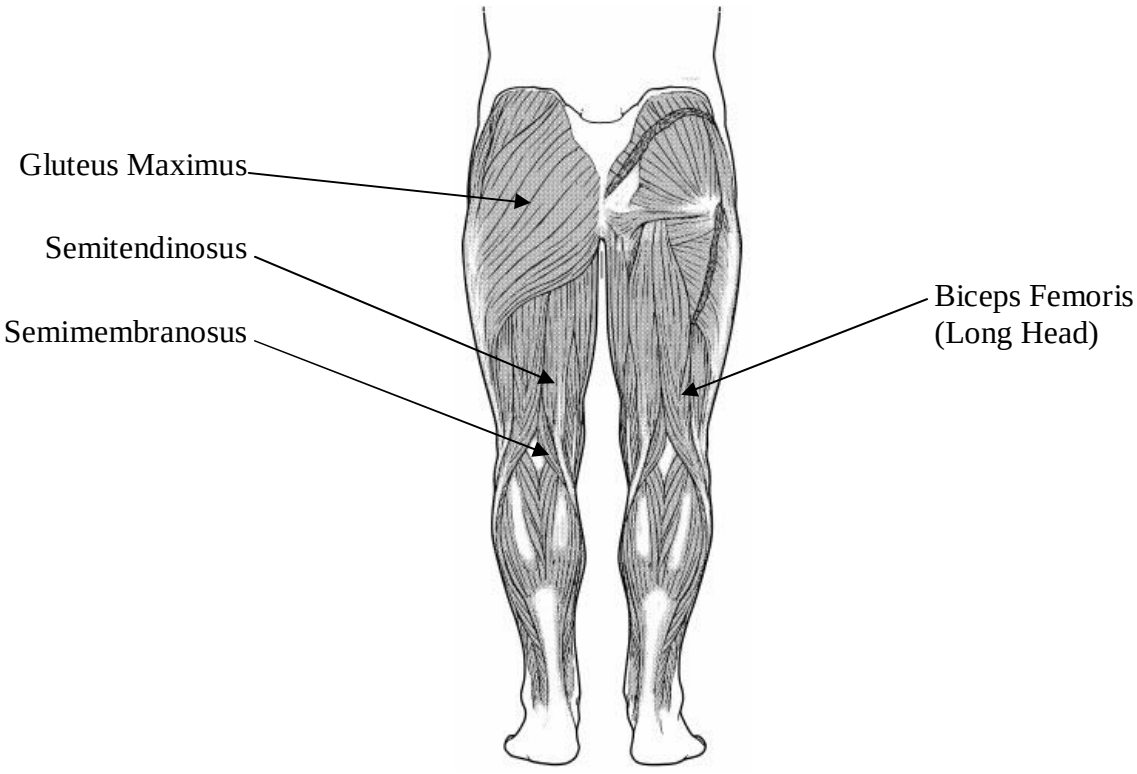


Figure 4-2a. Hip Extensors.

The hip, or thigh, extensors consist of 4 muscles located in the buttocks region and posterior thigh. Their names are: 1) Gluteus Maximus, 2) Semimembranosus, 3) Semitendinosus, and 4) Long Head of Biceps Femoris. See Figure 4-2a above. Note: The Semimembranosus, Semitendinosus and Biceps Femoris are commonly known as the hamstrings.

The main function of the hip, or thigh extensors, is to extend the thigh behind your body. This occurs during activities such as running, jumping, kicking, walking, skating, and swimming. This is illustrated below in Figures 4-2b and 4-2c.

Figure 4-2b. Neutral hip position.

Figure 4-2c. Hip extension.

HIP ABDUCTORS

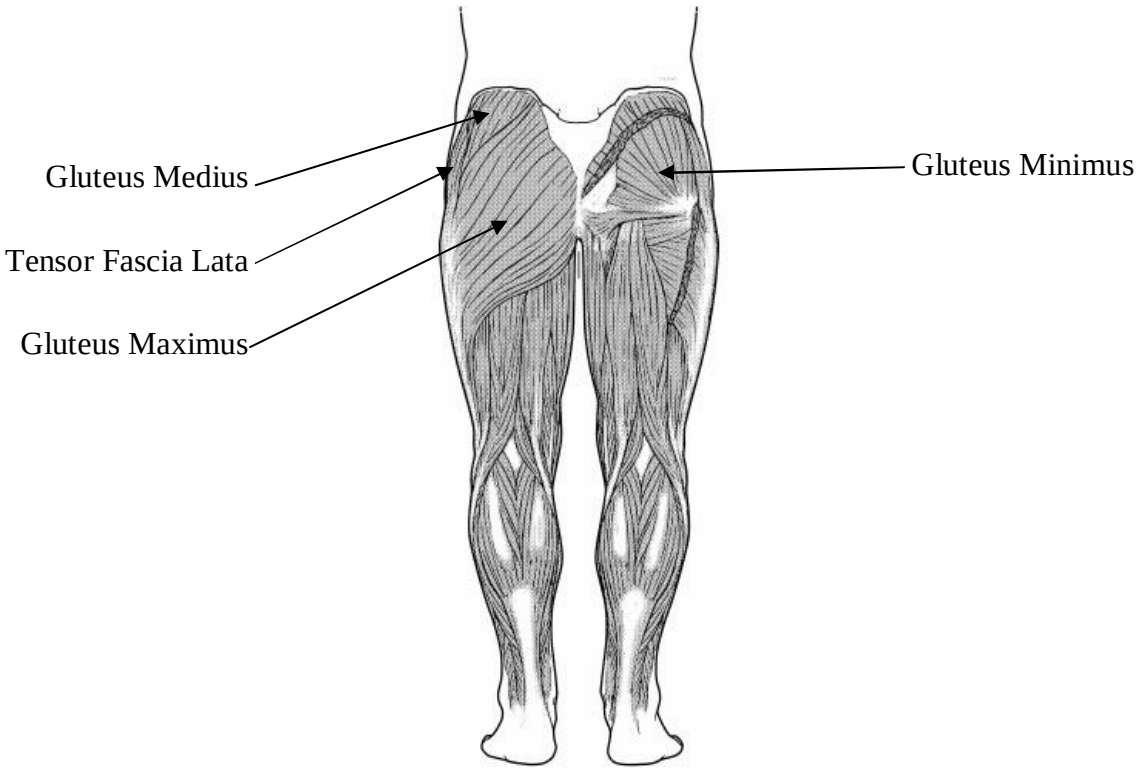


Figure 4-3a. Hip Abductors.

The hip abductors are a group of four muscles located in the buttocks region and lateral hip on both sides of the body. Their names are: 1) Gluteus Maximus, 2) Gluteus Medius, 3) Gluteus Minimus and 4) Tensor Fascia Lata. See Figure 4-3a above.

The hip abductors main function is to abduct, or separate, your legs away from the midline of the body. This occurs during any athletic movement requiring you to move from side to side such as playing the infield in baseball, defense in soccer, basketball and football, and ice skating. This is illustrated below in Figures 4-3b and 4ï 3c.

Figure 4-3b. Neutral hip position.

Figure 4-3c. Hip abduction.

HIP ADDUCTORS

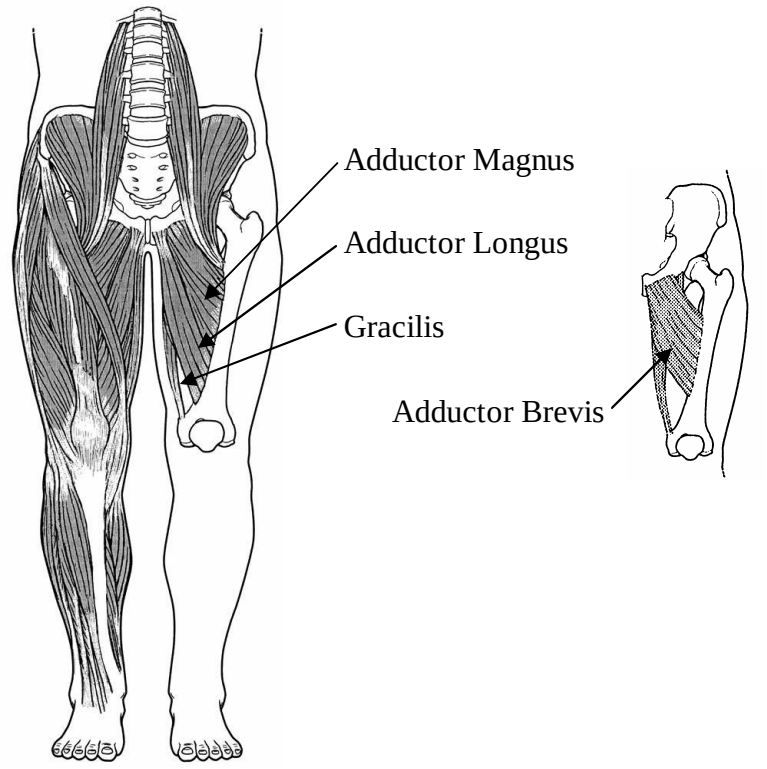


Figure 4-4a. Hip Adductors.

The hip adductors are a group of four muscles located in the medial thigh region on both sides of the body. Their names are: 1) Adductor Longus, 2) Adductor Brevis, 3) Adductor Magnus and 4) Gracilis. See Figure 4-4a above.

The hip adductors main function is to adduct or bring your legs towards the midline of the body as well as to cross one leg over the other. This occurs during any athletic movement requiring you to move from side to side such as playing the infield in baseball, defense in soccer, basketball and football, and ice skating. They are also used in activities such as horseback riding where inward pressure by your thighs is required to maintain a firm and stable riding posture. This is illustrated in Figures 4-4b and 4-4c.

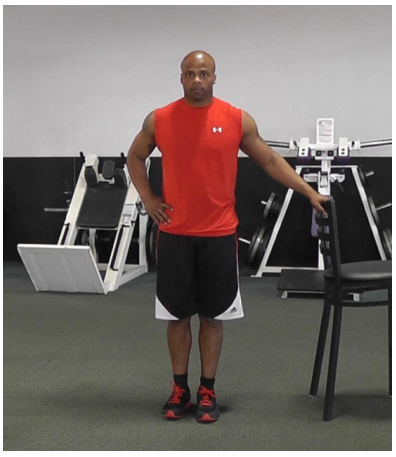


Figure 4-4b. Neutral hip position.

Figure 4-4c. Hip adduction.

HIP ROTATORS, EXTERNAL

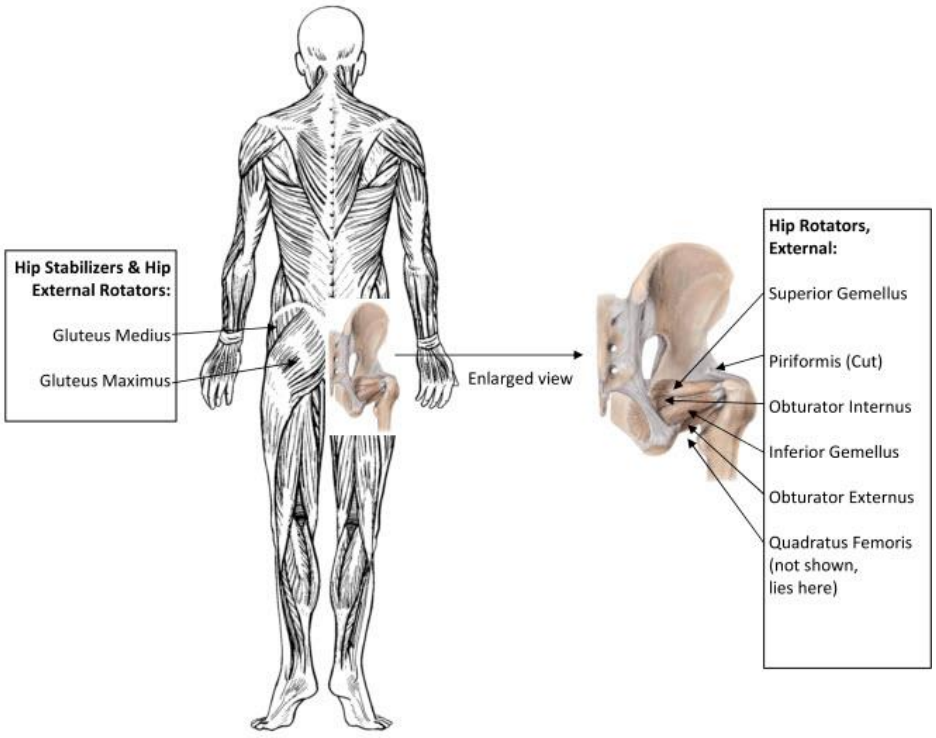


Figure 4-5a. Hip Rotators, External

The external hip rotators are a group of eight muscles located in the buttocks region on both sides of the body. Their names are: 1) Gluteus Medius, 2) Gluteus Maximus, 3) Superior Gemellus, 4) Piriformis, 5) Obturator Internus, 6) Inferior Gemellus, 7) Obturator Externus, and 8) Quadratus Femoris. Sees. See Figure 4-5a above.

The external hip rotators function to rotate the front, or anterior region, of your thigh outward, away from the midline of your body, as shown below in Figures 4-5b and 4-5c.

Figure 4-5b. Neutral hip position.

Figure 4-5c. External Hip Rotation.

HIP ROTATORS, INTERNAL

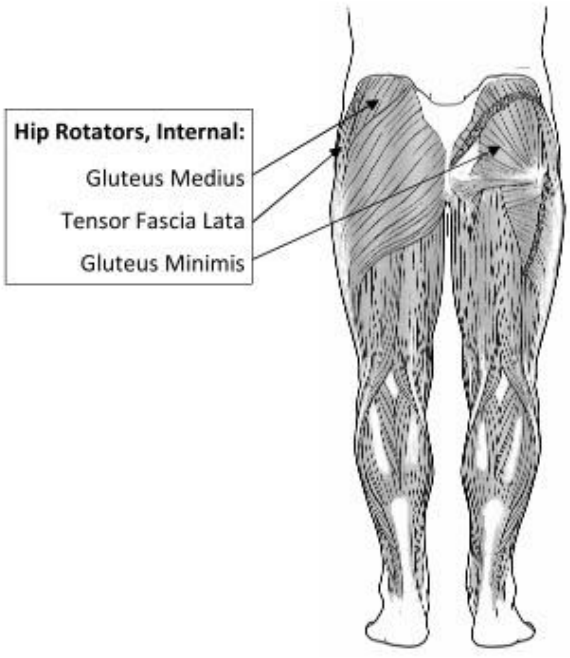


Figure 4-6a. Hip Rotators, Internal

The internal hip rotators are a group of three muscles located in the buttocks and lateral hip region on both sides of the body. Their names are: 1) Gluteus Medius, 2) Gluteus Minimus, and 3) Tensor Fascia Lata. Sees. See Figure 4-6a above.

The internal hip rotators function to rotate the front, or anterior region, of your thigh inward, toward the midline of your body, as shown below in Figures 4-6b and 4-6c.

Figure 4-6b. Neutral hip position.

Figure 4-6c. Internal Hip Rotation.

KNEE EXTENSORS (QUADRICEPS)

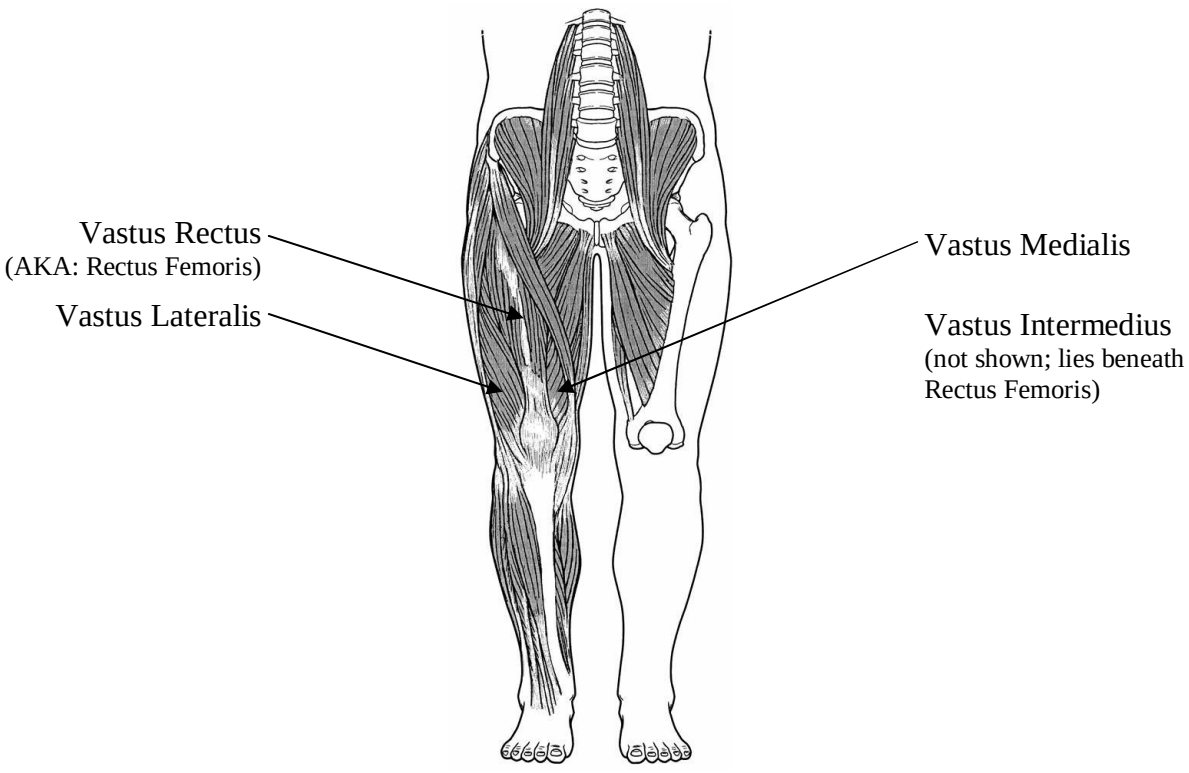


Figure 4-7a. Knee Extensors.

The knee/leg extensors are a group of four muscles located in the anterior thigh region on both sides of the body. Their names are: 1) Vastus Rectus (a.k.a. Rectus Femoris), 2) Vastus Medialis, 3) Vastus Lateralis and 4) Vastus Intermedialis. They are commonly known as the quadriceps, or quads. These muscles are shown in Figure 4-7a above.

The quadriceps main function is to extend the leg at the knee. This occurs during activities such as running, jumping, kicking, standing and walking. This is illustrated below in Figures 4-7b and 4-7c.

Figure 4-7b. Knee flexion while standing.

Figure 4-7c. Knee extension while standing.

KNEE FLEXORS (HAMSTRINGS)

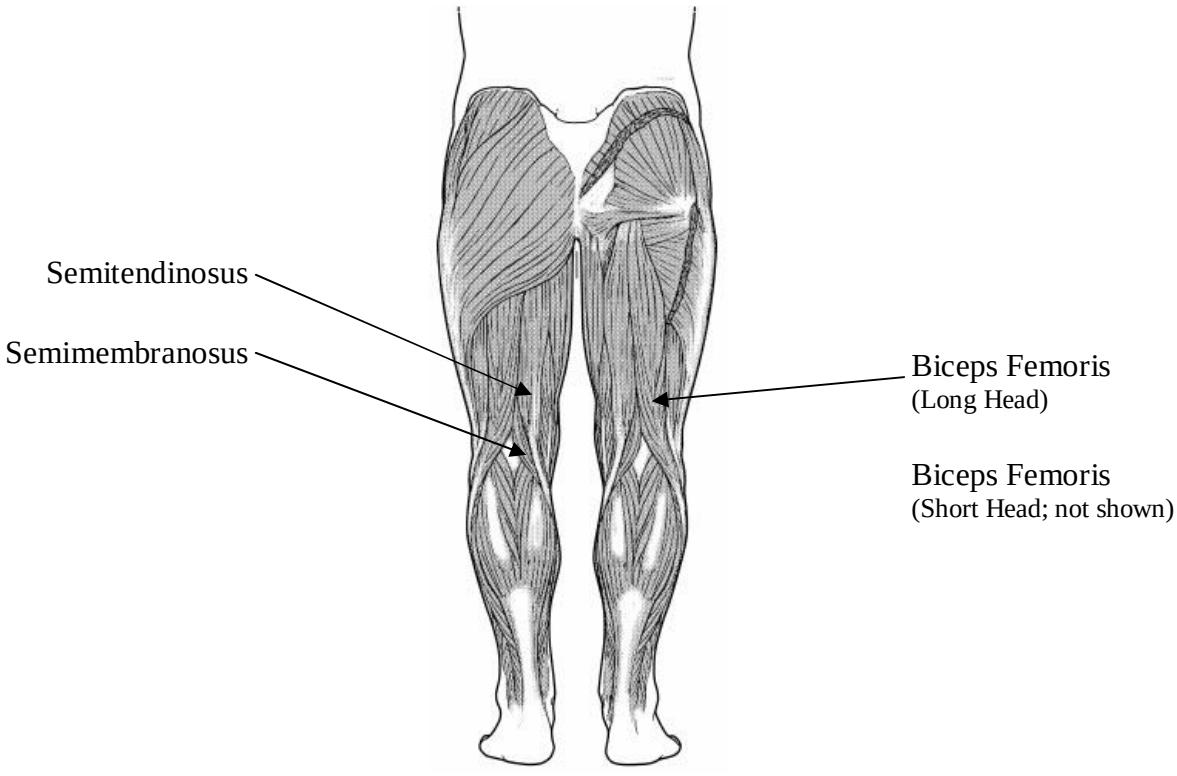


Figure 4-8a. Knee Flexors.

The knee/leg flexors are a group of three muscles located in the posterior thigh region on both sides of the body. Their names are: 1) Semitendinosus, 2) Biceps Femoris (both the long head and the short head are knee flexors since both cross the knee joint) and 3) Semimembranosus. They are commonly known as the hamstrings. See Figure 4-8a above.

The knee flexors function is to flex the lower leg/calf behind the thigh as shown below in Figures 4-8b and 4-8c.

Figure 4-8b. Neutral position.

Figure 4-8c. Knee flexion.

LATERAL SPINE ROTATORS

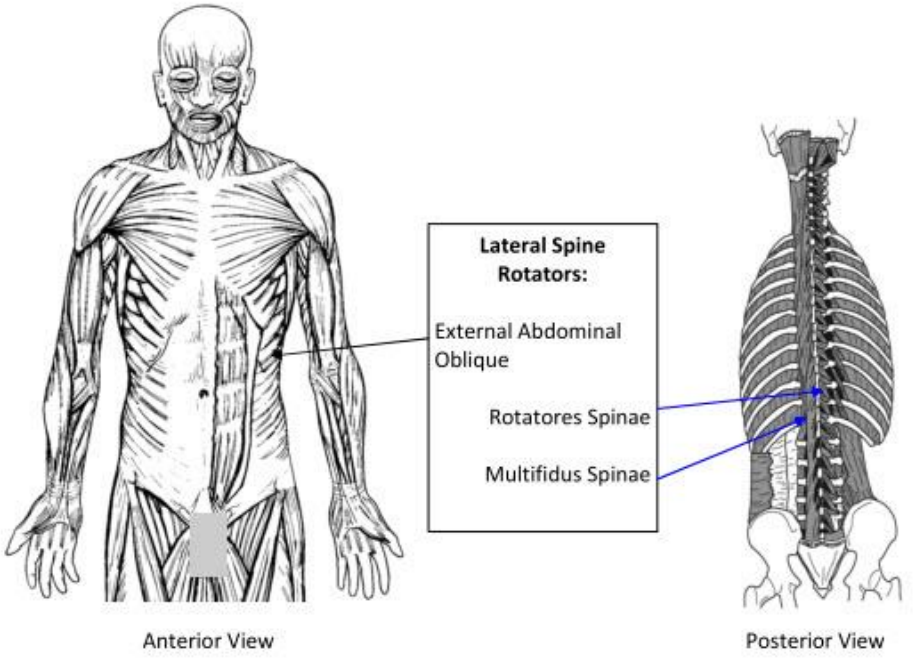


Figure 4-9a. Lateral Spine Rotators.

The lateral spine rotators are a group of three muscles located in the posterior thoracic and lumbar spines and abdomen, bilaterally Their names are: 1) External Abdominal Oblique, 2) Rotatores Spinea (eleven small muscles on each side of body) and 3) Multifidus Spinae. See Figure 4-9a above.

The lateral spine rotators function to rotate your upper body to the opposite side of where the contraction is taking place. In Figure 4-9b below the athlete is performing a sit-up where the front of his upper body has rotated to his left. This action is caused by contraction of the lateral spine rotators on his right side.

Figure 4-9b. Contraction of the lateral spine rotators on the right.

Section 5

Progress Chart
Weekly Training Schedule
Training Tip Reminders

PROGRESS CHART

Name_____ **Date Started**_____

STEP 1a. Record your five longest soccer kicks, football punts, kickoffs, and/or field goals before starting this program. Add the yards for each individual kick together and divide by 5 to get the average. Use the chart below:

Number	Soccer kicks	Punting	Kickoffs	Field Goals (FG)
1.	Yards	Yards	Yards	Yards
2.	Yards	Yards	Yards	Yards
3.	Yards	Yards	Yards	Yards
4.	Yards	Yards	Yards	Yards
5.	Yards	Yards	Yards	Yards
Add the yards for each individual kick together and divide by 5 to get the average:				
Average Yards	Soccer: Yds.	Punting: Yds.	Kickoff: Yds.	FG: Yds.

STEP 1b. Record your fastest time in one or more of the following races before starting this program in the spaces below:

40 yards_____seconds

60 meters_____seconds

100 meters_____seconds

200 meters_____seconds

400 meters_____seconds

Other_____seconds

STEP 2. Complete the Weekly Training Schedule located on the next page for at least two weeks. Perform each exercise three times on the recommended day. You may also make copies of the Weekly Training Schedule to allow for documenting any additional week(s) of training.

STEP 3a. Now record your five longest soccer kicks, football punts, kickoffs and/or field goals after you have completed the exercises for at least two weeks. Add the yards for each individual kick together and divide by 5 to get the new average and note the improvement. Use the chart below:

Number	Soccer kicks	Punting	Kickoffs	Field Goals (FG)
1.	Yards	Yards	Yards	Yards
2.	Yards	Yards	Yards	Yards
3.	Yards	Yards	Yards	Yards
4.	Yards	Yards	Yards	Yards
5.	Yards	Yards	Yards	Yards
Add the yards for each individual kick together and divide by 5 to get the new average:				
Average Yards	Soccer: Yds.	Punting: Yds.	Kickoff: Yds.	FG: Yds.

PROGRESS CHART (Continued)

STEP 3b. Now record your fastest time in one or more of the following races after you have completed the exercises for at least two weeks.

40 yards_____seconds

60 meters_____seconds

100 meters_____seconds

200 meters_____seconds

400 meters_____seconds

Other_____seconds

STEP 4. After you have completed this program for at least two weeks, it is recommended that you continue on with this same schedule for as long as you plan to stay competitive in your sport. This means you should be doing these exercises right along with any other training routine you may be involved in over the coming weeks, months and years.

WEEKLY TRAINING SCHEDULE

The table below outlines your weekly schedule for all ten exercises. As noted, Exercises 1-5 are performed on Days 1 and 4 of the week and Exercises 6-10 are performed on Days 2 and 5.

WEEKLY TRAINING SCHEDULE					
Day of Week	**Exercises**				
1	**Exercise #1**	**Exercise #2**	**Exercise #3**	**Exercise #4**	**Exercise #5**
2	**Exercise #6**	**Exercise #7**	**Exercise #8**	**Exercise #9**	**Exercise #10**
3	Rest Day	Rest Day	Rest Day	Rest Day	Rest Day
4	**Exercise #1**	**Exercise #2**	**Exercise #3**	**Exercise #4**	**Exercise #5**
5	**Exercise #6**	**Exercise #7**	**Exercise #8**	**Exercise #9**	**Exercise #10**
6	Rest Day	Rest Day	Rest Day	Rest Day	Rest Day
7	Rest Day	Rest Day	Rest Day	Rest Day	Rest Day

Using the Weekly Training Schedule: each exercise found in Section 3 of this publication as well as on the members website contains a table stating to perform it either three times with each leg (Exercises 1-6, 9 and 10) or three times in each direction (Exercises 7-8).

Using Exercise #1 (page 15) as an example, you are to do this exercise 3 times with each leg, alternating between them as you go. When you are finished, proceed to do likewise with Exercise #2 (page 16) and so on until all five exercises for the day shown in the Weekly Training Schedule above have been completed.

With each exercise taking around 3 minutes to complete, it should take you about 15 minutes to perform all five exercises for any given day.

TRAINING TIP REMINDERS

Tip #1. The exercises demonstrated in this program are meant to be physically challenging. If you find that your initial attempt with an exercise is too easy then you will need to increase the resistance by either adding in another resistance band, using a stronger band and/or repositioning yourself further away from where your band is attached to stretch it further.

Tip #2. Always train within the physical limits of the band. What this means is, no matter how much effort you are exerting for a given exercise, the resistance band should still be capable of stretching a little further. If the band is stretched to its maximum where there is no more stretch left in it, you will essentially turn the resistance band into a static rope, or cable, incapable of returning any elastic force back. This greatly reduces its effectiveness. If this should happen to you, then watch the video on ñHow To Increase Resistanceò and use one of the methods presented there.

Tip #3. All of the exercises recommend using between 70-80% of your maximum strength over a 10-15 second period of time. This is a significant amount of effort and the best way to gauge this is you should feel like you need to take a rest from the exercise around the 10 second mark. So when itôs your turn to do an exercise, if you can easily hold the final position for a lot longer than the recommended 10-15 seconds, such as 20 seconds or more, then you do not have enough resistance and will need to increase it.