

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 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.

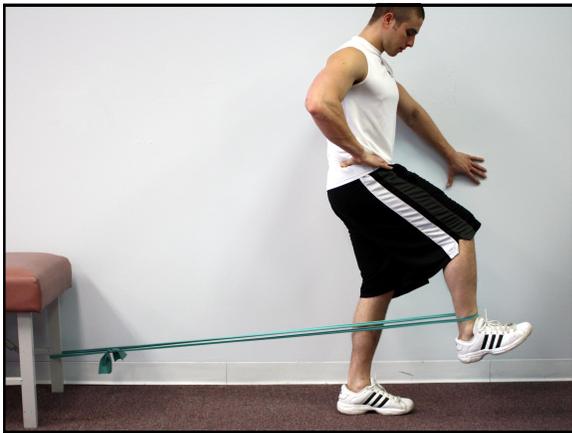


Figure 2-2a. Final holding position for Exercise #1 using one band.

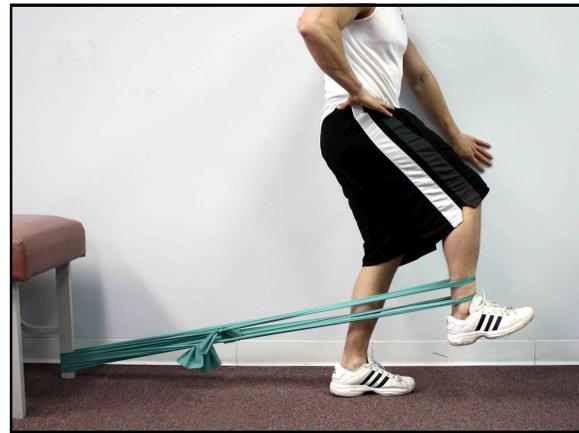


Figure 2-2b. Final holding position for Exercise #1 using two bands.

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 won't 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. Here's 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 1/8" 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:

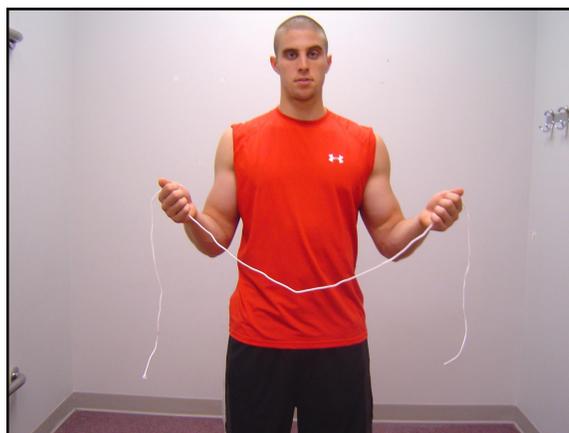


Figure 2-3. Five foot piece of nylon rope.

STEP 2. Fold the rope in half so as to form two ropes about 2 1/2 feet long each. You don't 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.

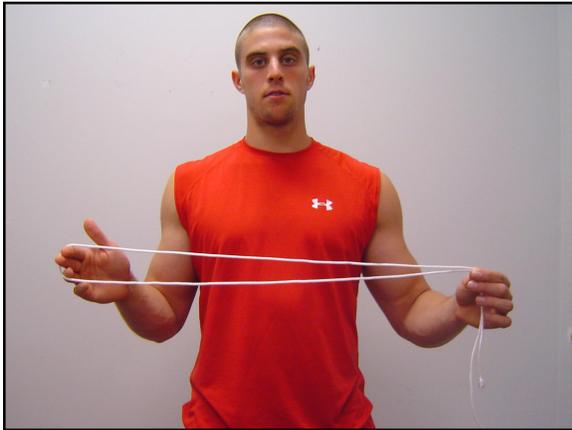


Figure 2-4a. Rope folded in half to make two strands about 2 1/2 feet long.



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:

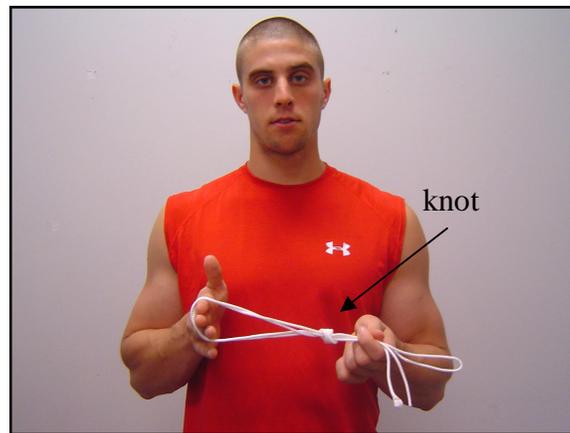


Figure 2-5. Door attachment complete.

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, doesn't 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.

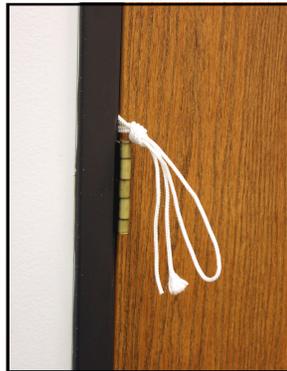


Figure 2-6b. View from *inside* the room. Door closed tightly shut.



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.