



## PREFACE

Virgil is showing some great variations to try when you are bored and want to get out of the gym and concentrate on bodyweight movements. Very cool stuff – check out how to get those glutes firing and building that knee stability in the sagittal plane!

Jim Smith “Smitty”, CSCS, CFT, USAW

The Diesel Crew



## Stair Lunge Variations to increase your Strength, Dynamic Flexibility, Balance and Conditioning!

By: **Virgil Aponte, MS**

[www.StairExercises.com](http://www.StairExercises.com)

When it comes to low tech, bang for your buck conditioning tools look no further than your apartment building, office building, high school, college, stadium or any place that gives you access to stairs. That's right. You read it right the first time: STAIRS! Stairs are so effective that it inspired Stairmaster to create the Stairmaster™ and StepMill™. Although these pieces of equipment can be very valuable in gym setting they can't compare to what real stairs have to offer.

When most people think of stair exercises they usually envision running up stairs for anaerobic conditioning. But the truth is that stair exercises can address just about any fitness goal you can think of. Stairs can be used to improve strength, power, flexibility, and conditioning without the use of any other equipment except for your body of course. Many people use kettle bells, dumbbells, barbells, and weighted vests so I'll go over workouts combing these tools with stairs. Many of these ideas and workouts I've personally used with elite professional athletes, college and high school students, law enforcement officials, military officials, seniors, teachers, secretaries and many more.

Before I go over some workouts I'll go over some stair exercise descriptions and ideas you'll need to know.

### Stair Exercise Descriptions & Ideas:

**Real Stair Climbing:** Real stair climbing is the actual use of stairs and stair cases. I do this to differentiate it from modifications like the Stairmaster™ and Stepmill™. Although equipment like the Stairmaster™ and Stepmill™ can have great value they cannot compare to what Real Stair Climbing has to offer.

**Climbs or Climbing:** The actual act of walking or running up staircases.

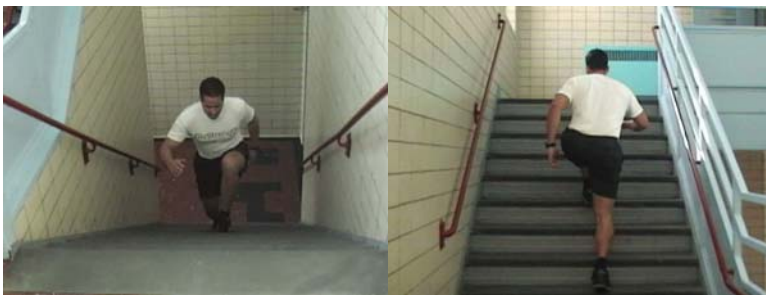
**Round or sets:** From the first floor to the top floor and back down is considered a round of stair climbing. This is not written in stone. Call it what you like. I also sometimes call it a set. Also in my own workouts, I rarely walk downstairs. I usually take the elevator down for safety reasons, but also keep in mind in the high school I work in we have to use the stairs to get back down, but we make it a point not to run downstairs and just walk down and take our time. It is not going to improve our conditioning, but in this case safety takes the precedent over improvement.

**Stair Lunges:** stair lunges are simply walking up stairs using 2 or 3 steps at a time. Doing so puts your legs in a mechanical disadvantage thus requiring your legs to become stronger to overcome this disadvantage.

**Change how many steps you use:** Normally I prefer to use 2 steps but you can also use 3 steps when doing stair lunges. In my experience this has been possible with taller people or at least those with longer legs. One thing I'll tell you though: That 1 extra step makes a big difference and will challenge almost anyone I know. Add dumbbells, kettle bells, barbells or a weighted vest and you're in for some brutal but fun workouts. What about 4 steps? In my experience 4 steps is a bit too much and too unsafe.



2 steps



3 Steps

**Stair Lunges in Different Directions:** Besides using the traditional straight forward lunges you can also do crossover lunges, crossover lunges from the side, side steps ups and so forth. This will address training in what experts call the frontal and

transverse planes of motion. This simply means moving from side to side and with rotation. Training this way will also allow you to improve dynamic flexibility and improve your strength balance. Most people only have adequate strength going straight ahead (sagittal plane) and lack strength side to side (frontal plane) and while rotating (transverse plane).

**Crossover forward:** Walking up the stairs using this crossover motion is an excellent way to improve your legs dynamic flexibility and will also strengthen you in the transverse and frontal planes of motion.

1.



2.



**Crossover from side:** The main reason to use this crossover variation is that it allows you to find which side is weaker and work on strengthening that side.

1.



2.



**Side to Side Steps Facing Forward:** This variation is excellent for improving knee stability and is similar to cutting moves seen in soccer and football.

1.



2.



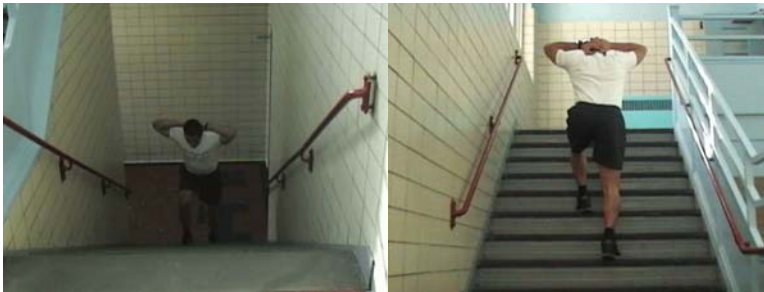
3.



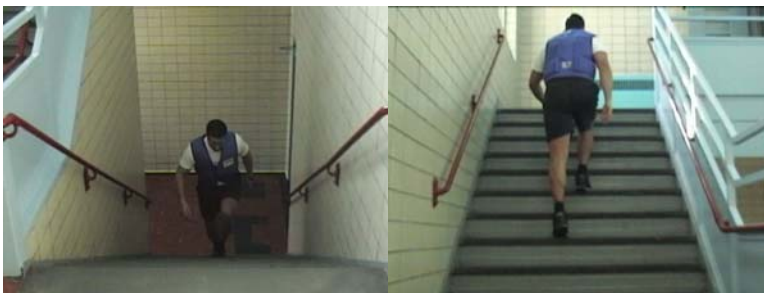
**Side Step ups:** Once again this is great for finding which side is weaker and allows you work on that particular weakness. It's also great for improving strength in the frontal plane. By the way most ankle injuries occur in the frontal plane.



**Hands behind the head:** Another way to increase the difficulty of your strength workouts is to place your hands behind your head. This variation will make walking up the stairs more difficult by challenging your balance and increasing the work demands of your legs.



**Using a weighted vest:** This is an excellent way to add external resistance when 20-30 lunges start to become too easy. Using a weighted vest is also the best way to add resistance when running up stairs.

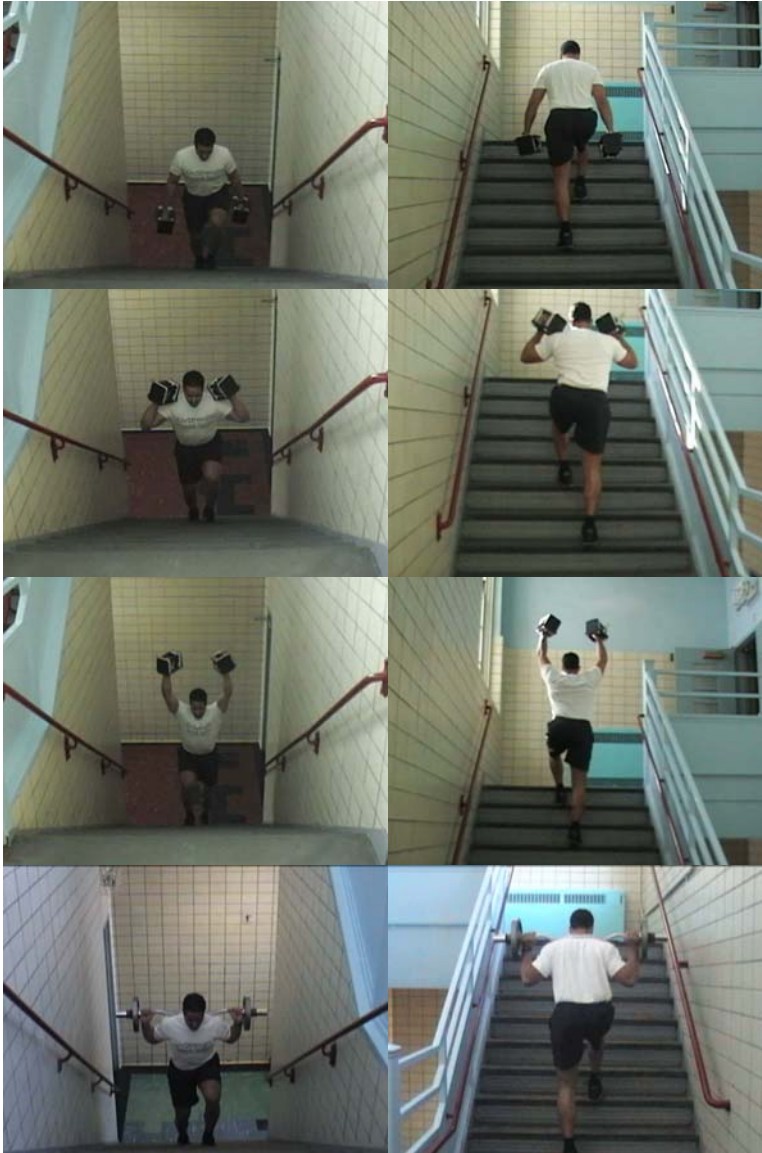


**Use Dumbbells, Barbells or Kettle Bells:** Another way to add external resistance when things get to easy is with the use of dumbbells. You can also do these specific

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exercises before and/or after your climbs. Many Kettle bell users do exercises like snatches etc... followed by stair climbs. The possibilities are endless.



**Make use of a jump rope, bodyweight exercises, or dumbbell/kettlebell exercises before or after your climbs:**

Again many people use these types of exercises before of after their climbs to increase to workout intensity or to simply focus on specific goals they may have.

### Rope Jumping



### Dumbbell Exercises



### Bodyweight Exercises



## **Other Ideas to Increase your workout intensity and progress to higher levels of conditioning:**

**Use larger steps:** Besides using 2 or 3 steps you can also make use of larger steps (if you have access of course). At the high school I work at we have access to double size concrete steps that we use to do some anaerobic work, strength work and power development work. Each step is about the size of 2 steps.



Giant Steps (each step is about the size of 2 standard steps)

**Add rounds:** As your conditioning improves you can add more rounds for further improvements.

**Add flights:** Again, as your conditioning improves you can add more flights to challenge you further.

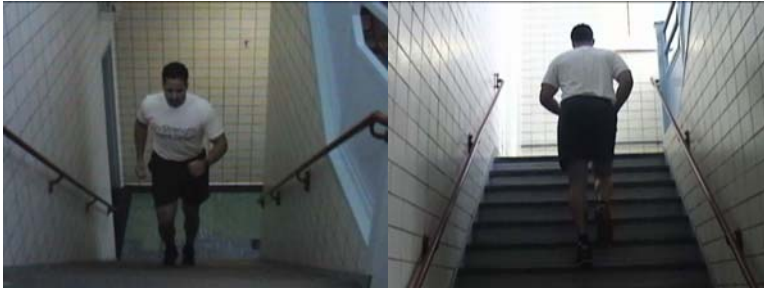
**Reduce rest intervals:** Another way to change your workouts is to change how long you rest between your climbs. Just changing your rest intervals by 30 seconds can make a huge difference.

## Stair Exercise Workouts:

### *Workout 1: Stair Lunge variations workout (2 or 3 steps at a time)*

**Note: in this workout I had access to 20 flights.**

**Round 1:** warm-up: Walk up 20 flights (using 1 step) at a slow pace. (4-5 minutes) and then take elevator down



**Round 2:** Do 30 stair-lunges: 15 on weaker side followed by 15 on your stronger side. (Climb 2 or 3 steps each lunge).



**Round 3:** Do 30 stair-lunges in alternating fashion. (Climb 2 or 3 steps each lunge).



**Round 4:** Do 30 crossover-lunges in alternating fashion (climb 2 or 3 steps each lunge).

**Note: some people may not have the strength and/or flexibility to climb 2 steps in this fashion. In this instance just climb 1 step each lunge.**



**Round 5:** Do 30 crossover lunges from side: 15 on weaker side followed by 15 on your stronger side. (Climb 2 steps for each lunge).

**Note: some people may not have the strength and/or flexibility to climb 2 steps in this fashion. In this instance just climb 1 step each lunge.**



**Round 6:** Do 30 side to side lunges in alternating fashion. (Climb 2 steps for each lunge).

**Note: some people may not have the strength and/or flexibility to climb 2 steps in this fashion. In this instance just climb 1 step each lunge.**



**Round 7:** Do 30 side step ups: 15 on weaker side followed by 15 on your stronger side. (Climb 2 steps for each lunge).

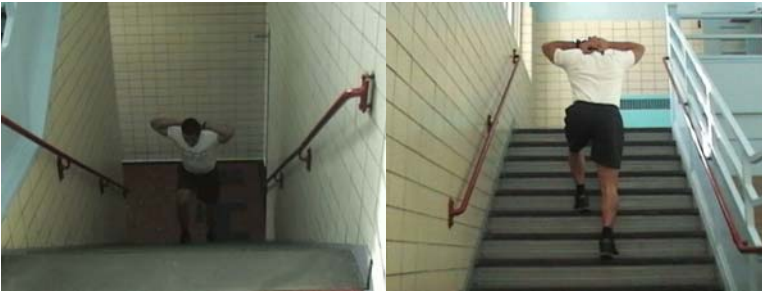
**Note: some people may not have the strength and/or flexibility to climb 2 steps in this fashion. In this instance just climb 1 step each lunge.**



**Note: It is also possible that some people will not have the strength to climb two steps in any instance. Simply use 1 step.**

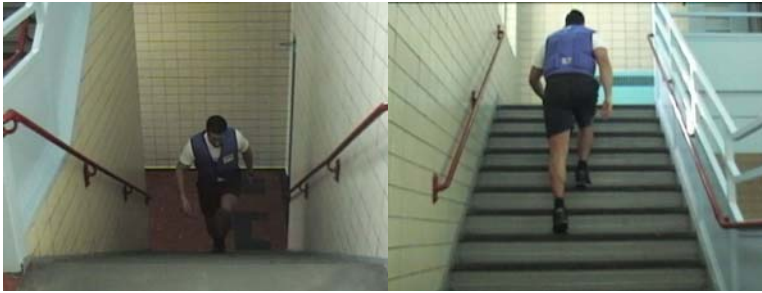
In this workout you'll be doing lunges in all planes of motion. Remember that it's very important to address frontal (side to side) and transverse (rotational) planes because that's where many people are weakest and is probably why people get hurt in those planes so frequently. We usually don't address these planes in our exercise routines but constantly use these planes in our everyday lives.

***Workout 2: Walking up stairs (2 or 3 steps at a time) with hands behind the head.***



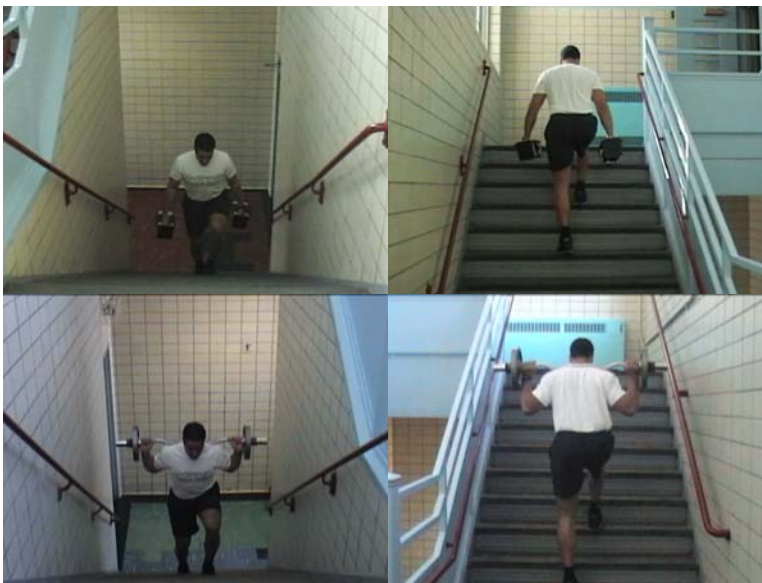
***\*Same as workout 1 place your hands behind your head.***

***Workout 3: Walking up stairs (2 or 3 steps at a time) with a weighted vest.***



*\*Same as workout 1 except you'll be using a weighted vest.*

**Workout 4: Walking up stairs (2 or 3 steps at a time) with dumbbells or barbells.**



*\*Same as workout 1 except you'll be carrying dumbbells or barbells.*

**Workout 5: Stair Lunge variations workout combined with jumping rope**

*\*Same as workout 1 except you'll be jumping rope between each round  
You can jump anywhere from 30 seconds up to 5 minutes depending on  
your goals.*



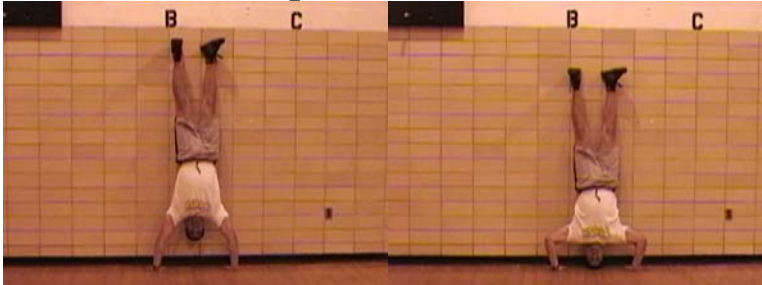
***Workout 6: Stair Lunge variations workout combined with dumbbell, kettlebell, barbell or bodyweight exercises.***

*\*Same as workout 1 except you'll be doing specific your bodyweight, dumbbell, kettlebell or barbell exercises before or after each climb. Also keep in mind that these you won't need to do all the exercises listed. These are just ideas of what can be done.*

**One arm pushups:** 1 set of 1-10 one arm pushups before and/or after each climb



**Handstand Pushups:** 1 set of 5-20 handstand pushups before and/or after each climb



**Regular Pushups:** 1 set of as many push-ups as you can before and/or after each climb



**One Legged Squats:** 1 set of 5-10 squats before and/or after each climb



**Strength Endurance Squats:** 1 set of 20-50 squats before and/or after each climb



**Dumbbell, kettlebell, or barbell exercises:** You can also do specific exercises before each climb. Most people prefer to do big bang exercises like the snatches, overhead squats or lunges.



**Dumbbell Reverse Lunge off 1 step:** Here I'm doing 20 lunges before a 10 flight climb.

## **Workout 6: All-Out climb to the 20<sup>th</sup> floor using with dumbbells or kettle bells.**

I learned this from a student of mine whose father works in construction. His father told him that a true test of strength is carrying cement buckets up 10 flights of stairs. He was certainly on to something. The thing is he climbed 10 flights of stairs using 1 step at a time. This all out climb will ask you to climb 20 flights using every 2 steps. I myself have done this climb with (2) 40 pound dumbbells. Is this strength training in technical terms? No, but if you're able to do this you will have achieved a level of strength endurance that many people will never achieve.

I suggest you start off by trying to see if you can actually try to climb 20 flights of stairs using every 2 steps first before trying it with any weight.

I hope these workouts and exercises can give you a start on how to incorporate stair exercises into your programs. Obviously there are a number of ways to use stair exercises. Also, your situation will be different than mine and the people I've worked with. I have access to 20 flights of stairs in one place, 12 flights at the high school I work in and also access to over-sized and stadium steps. Your access to stairs will dictate what you can do. Also if you come across other ideas when using stair exercises feel free to share them with me as I may include them in a revised edition of my Ultimate Stair Exercises E-Book.

**Who might you find using stair exercises?** Since I've created a DVD set and Book on just stair exercises I like to keep an eye out for who actually is using stair exercises. Here's the growing all star list of elite professional athletes and celebrities.

Curtis Martin: Future Hall of Fame running back of the New York Jets

Dante Cullpepper: All-Star Quarterback of the Minnesota Vikings

Tom Brady: Super Bowl MVP of the World Champion New England Patriots

Alex Rodriguez: Major League Baseball's highest paid player and New York Yankee All-Star Third Basemen

Jennifer Lopez: International Superstar and Hollywood's Best Body

Tom Brokaw: NBC Nightly News Anchorman

The New York Liberty Women's basketball team: When I served as assistant strength coach with them back in 2002 stair exercises were one of our secret weapons. The players either loved it or hated it. The either loved it for the results it provided or they hated it because it was too tough. Funny thing is that they also loved for giving them buns of steel!

## **Happy Stair Climbing**

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