

**CHICAGO FIRE DEPARTMENT  
BUREAU OF OPERATIONS  
TRAINING DIVISION**



**FIREFIGHTER/EMT APPLICANT PREPARATION GUIDE**

Revised October 2015



### Letter from the Fire Commissioner

Dear Firefighter/EMT Applicant:

Congratulations on your decision to pursue the prestigious position of Firefighter/EMT candidate with the Chicago Fire Department. Firefighter/EMTs hold an important place among this City's first responders. Firefighters offer a high level of skill and ability, providing life-saving services to the citizens and visitors of the City of Chicago every day.



As a Firefighter/EMT candidate, you are encouraged to prepare both mentally and physically for the Fire Academy. Adequate preparation will enhance your probability for success, both as a candidate in the Academy and as a Firefighter/EMT serving the City of Chicago.

This guide is intended to provide you an overview of what to expect during your tenure at the Fire Academy. This guide also suggests you engage in a physical conditioning program to prepare for the physical demands of Academy training and the firefighter position. Participation in the suggested training program is strictly voluntary.

We hope you take this opportunity to prepare for your entrance into the Fire Academy, and we thank you for your interest in the Firefighter/EMT candidate position.

Sincerely,

A handwritten signature in black ink that reads "Jose A. Santiago".

Jose A. Santiago  
Fire Commissioner  
Chicago Fire Department

## Disclaimer

This manual provides information on what to expect if you are admitted into the Chicago Fire Department Academy as a Firefighter/EMT candidate. It also contains information on how to prepare physically and academically for Academy training. It is strongly recommended that you review this manual in advance of your entrance into the Academy and take any actions that you anticipate would increase your probability of success as a Firefighter/EMT candidate. Participation in this program is strictly voluntary.

Nothing in this manual is intended to create any property interests in any job or position for any applicant. This manual is intended as a guide and does not contain all applicable Academy requirements. It is the responsibility of each applicant hired into the Chicago Fire Department Academy to review and comply with all Academy requirements. The requirements of Academy training may change from time to time. The requirements provided while at the Academy and the Department policies in place at the time of your training shall prevail over any conflicting requirements set forth in this manual.

The City of Chicago and its elected officials, officers, agents and employees deny and disclaim any responsibility to any person or party for any injury, damage, loss and/or death arising in any way from use of this manual or any information contained in this manual.

Individuals participating in a physical conditioning program should be medically fit. If you have any questions or doubts about your medical fitness to perform a physical conditioning program, you are encouraged to consult a physician before beginning the program. You should stop the program and consult a physician if you experience any of the following conditions:

- Unexplained chest pain
- Loss of Consciousness
- Loss of balance due to dizziness
- Recent injury resulting in bone, joint or muscle problem
- Current prescribed drug that inhibits physical activity
- Onset of angina or angina-like symptoms
- Signs of poor perfusion: light headedness, confusion, ataxia, pallor, cyanosis, nausea, or cold clammy skin
- Any other painful or abnormal physical sensation

## **THE CHICAGO FIRE DEPARTMENT ACADEMY TRAINING PROGRAM**

The Fire Academy is a full-time, six month program. The first three months of training will focus on EMT training and physical training. The second three months of training will focus on Firefighter training, as well as physical training.

Academy classes usually start at 8:00 a.m. and conclude at approximately 4:00 p.m., although the exact schedule may vary from day-to-day. During Academy training, candidates attend academic classes, participate in physical conditioning activities, practice and perform EMT-B skills-based assessments and are assessed on the skills and abilities they have gained through Academy training.

Candidates are strictly prohibited from engaging in any secondary employment during training. Violation of this policy may lead to discipline, up to and including termination. In addition, candidates must be residents of the City of Chicago on the first day in the Fire Academy. You should ensure that you have adequate transportation to timely arrive at training before your first day of training.

### **PHYSICAL CONDITIONING**

Firefighter/EMTs work rigorous 24 hour shifts transporting heavy equipment and patients through uncertain conditions. Firefighter/EMT candidates are **expected** to demonstrate their commitment to physical fitness by participating in all physical conditioning activities in the Academy.

Candidates participate in physical conditioning activities for approximately two hours, four to five times a week in the Training Academy. Physical conditioning activities include, but are not limited to, stair climbing, running, core training, push-ups, jumping jacks, lunges, and burpees. You should be prepared on day one of the Academy to perform these tasks.

At least three times during Academy training, candidates participate in the Physical Fitness Performance Sequence. The Physical Fitness Sequences is aimed at establishing a baseline of fitness condition upon entering the Academy and measuring fitness improvement during Academy training. You are encouraged to practice the Physical Fitness Performance Sequence before entering the Academy. The Physical Fitness Performance Sequence consists of five elements: (1) the aerobic step test; (2) push-ups; (3) bench squats; (4) plank; and (5) sit and reach.

#### **1. Aerobic Step Test - Cardio Endurance**

- For two to four minutes, the candidate steps up onto and down from an eighteen (18) inch platform, holding a twenty-five (25) pound dumbbell in each hand.

- The candidate must keep pace with a metronome at 112 beats per minute, one beat up and one beat down.

## 2. Push-Ups

- For two minutes, the candidate performs push-ups using proper form.
- Proper form is a straight back, head in a neutral position, push up to straight arms, and down to hovering above (not on) the ground.
- The candidate must keep pace with a metronome at 80 beats per minute, one beat up and one beat down.

## 3. Bench Squats

- For three (3) minutes, the candidate performs squats over a standard weight bench using proper form.
- Proper form is knees aligned over ankles and not extending beyond toes. When in the squat position, thighs are parallel to the floor.
- The candidate must keep pace with a metronome at 76 beats per minute, one beat up and one beat down.

## 4. Plank

- For up to four (4) minutes, the candidate holds the plank position using proper form.
- Proper form is elbows on the ground, directly below shoulders. Hips and legs are extended so that knees are off the ground. Shoulders, hips and knees are in a straight line, engaging the abdominals and lower back.

## 5. Sit & Reach

- The candidate sits with arms fully extended, and right hand over left hand, and, using proper form, exhales while reaching smoothly towards the feet.
- Proper form begins by sitting with head, upper back and lower back in contact with a wall. Legs are placed together and fully extended.

## **ACADEMIC PROGRAM**

### **CANDIDATE FIREFIGHTER/EMT-B REQUIREMENTS**

A Firefighter/EMT Candidate must possess a valid Illinois driver's license while at the Academy and throughout his or her career.

A Firefighter/EMT Candidate must successfully pass a CPR certification test prior to entry into the EMT-B Program. Candidates must maintain a 75% average on Academy Tests, Quizzes, Homework and other graded activity as set forth on the Academy Syllabus. Candidates must meet the passing requirements of all System, Licensure and Office of the State Fire Marshal tests. This applies even if the Candidate already possesses an EMT-B license prior to entering the Academy. A Candidate Firefighter/EMT-B must successfully pass the EMT-B Licensure Test no later than 150 calendar days after the first day of the Academy. A Candidate Firefighter/EMT-B must successfully gain entry into the Chicago Citywide Emergency Medical System at the level to which he or she is trained prior to graduation from the Academy.

In order to graduate from the Academy, a Candidate must meet all of the Office of the State Fire Marshal's objectives for Basic Operations Firefighter including passing the Office of the State Fire Marshal's written examination for Basic Operations Firefighter; and passing the Office of the State Fire Marshal's practical skills examinations for Basic Operations Firefighter.

In order to graduate from the Academy, a Candidate must meet all of the Office of the State Fire Marshal's objectives for Fire Service Vehicle Operator, including passing the Office of the State Fire Marshal's written examination for Fire Service Vehicle Operator; and passing the Office of the State Fire Marshal's practical skills examinations for Fire Service Vehicle Operator.

Quizzes: Candidates shall be prepared for a quiz at every class session. Any candidate with an unexcused absence will receive a grade of zero for the missed quiz. The zero grades will be averaged into the total course grade.

Tests: Candidates at the Academy are tested on their EMS medical knowledge and skills, firefighting knowledge and skills, knowledge of Chicago Fire Department policies and procedures, General Orders, Standard Operating Procedures, the geographic location of streets in the City of Chicago and driving skills.

You should be fully prepared to begin academic training on your first day in the Academy. In addition, you should be prepared to complete homework on a regular basis, participate in study groups as necessary, and complete all required readings.

## **APPLICANT PREPARATION**

There are a number of things applicants can and should do to prepare for the Academy and improve their likelihood of succeeding in the Academy.

### **ENTRANCE REQUIREMENTS**

In order to gain entrance into the Academy, candidates must:

- Pass all stages of the hiring process, including the Firefighter/EMT physical abilities test (the CPAT), drug screens, background evaluation and medical evaluation
- Hold a valid Illinois driver's license
- Live in the City of Chicago

### **PHYSICAL CONDITIONING**

Candidates are expected to demonstrate their commitment to physical fitness by participating in physical conditioning activities in the Academy. Candidates who enter the Academy with a baseline the ability to perform the physical fitness principles listed below are more successful during physical conditioning activities in the Academy.

Physical Fitness Principles: Physical fitness generally involves: (1) cardiovascular fitness; (2) muscular strength; (3) muscular endurance; (4) flexibility; and (5) body composition.

- Cardiovascular fitness involves the delivery of oxygen-rich blood from the heart and lungs to working muscle tissues and the use of oxygen by the muscles to produce energy and movement. Cardiovascular fitness is improved by sustained aerobic activity demanding an above-normal heart rate for at least 30 minutes, 4 to 5 times per week.
- Muscular strength refers to the ability of a muscle to exert force. Muscular strength may be developed by performing weight lifting or similar activities to muscle exhaustion for at least 30 minutes, 4 to 5 times per week.
- Muscular endurance is the ability of a muscle to sustain or apply a force repeatedly without rest. Muscular endurance may be improved by repetitive lifting or similar activities less than the muscle's maximum capacity.
- Flexibility is range of motion and muscular length at a joint or series of joints. Flexibility may be developed by effective stretching exercises, such as static stretching, dynamic stretching or controlled dynamic stretching.

- Body composition is the amount of body fat compared to the amount of muscle and bone mass on a person. Carrying excess weight increases the strain put on the muscles, heart and lungs when performing physical tasks. Appropriate body composition can help reduce excess strain.

Physical Conditioning Principles: Effective physical conditioning requires an understanding of five principles: (1) warm up; (2) adaptation; (3) overload; (4) specificity; and (5) cool down.

- A warm up session should precede any strenuous physical activity. Applicants should begin a warm up with light stretching of the muscles and the joints, followed by slowly increasing the heart rate and body temperature.
- Adaptation refers to the body's increasing resistance to change through training. The effects of training are improved heart function and circulation, increase in muscular size, strength and endurance, decrease in fat composition, blood pressure and cholesterol levels.
- Overload is an increasing demand on the body systems that allows physical fitness levels to improve as the body adapts to a physical fitness routine. Overload is related to the frequency of training activity, the intensity of training activity and the duration of training activity.
- Specificity refers to the type of training that is targeted at the desired result. Applications should practice specificity in their training, as outlined in the manual, to prepare for the physical conditioning and related activities conducted in the Academy.
- A cool down session should follow any strenuous physical activity. Applicants should cool down by slowly decreasing the heart rate and body temperature, followed by stretching exercises.

Suggested Physical Fitness Program: Using the above principles, applicants can improve their physical fitness by engaging in a variety of conditioning activities on a consistent basis. The programs described on the following pages provide different options for strength training and cardiovascular conditioning intended to help applicants prepare for the physical conditioning and related activities performed during Academy training.



## **STRENGTH TRAINING OPTION 1**

### **CIRCUIT WEIGHT TRAINING PROGRAM**

Circuit training can build muscular strength and aerobic capacity when done with little rest between exercises (10-20 seconds), utilizing different muscle groups. To obtain the best results, select weight loads that permit you to complete the full number of prescribed repetitions with perfect form. Work the full range of motion with each exercise, and focus on the muscle being used. The program consists of different exercises for the ten major muscle groups:

1. ABDOMINALS: Static plank
2. LOWER BACK: Hyperextension, seated row, bent-over row, dead lift
3. CHEST: Flat bench, incline bench, decline bench, flys, pec-dec, push-ups
4. UPPER BACK: Lat pull down, gravitron, seated pulldown, pull-ups
5. SHOULDERS: Military press, rear deltoid cables or lateral raises
6. BICEPS: Dumbbell curls, easy curl bar, cable curls, bicep curl machine
7. TRICEP: Tricep extensions, kick backs, tricep machine, dips
8. QUADRICEPS: Leg extension, leg press, squats
9. HAMSTRINGS: Leg curl, lunges
10. CALVES: Standing calf raises, seated calf machine

Muscular Endurance: If you are just starting a training program or your goal is to increase muscular endurance, adjust the resistance (weight) so that you can perform 20-25 repetitions with perfect form. That means you must be able to reach 20 reps, but physically not be able to do more than 25 reps (with perfect form). If you can't do 20 reps, lower the weight; if you can do more than 25 reps, add weight. You should begin with one or two revolutions of each exercise, depending on your fitness level, and try to progress to four revolutions.

Muscular Strength: After completing a number of sessions using the muscular endurance guidelines, you can tailor the program to build muscular strength. First perform one revolution using the 20-25 rep rule. The second revolution should be performed using 15-20 reps; this will mean adding more resistance (same principle make 15 fail by 20). The next revolution should be performed using 10-15 reps (same principle). The last revolution should be performed using 6-10 reps. This combination will increase muscular strength and muscular endurance. After each revolution try to vary the exercises for that muscle group, for example: for chest, first revolution do flat bench; second revolution do incline, etc.

Under either option, in the case of abdominals and lower back hyperextensions, you should do as many reps as you can until muscle failure (the point where you cannot physically do any more without straining).

**STRENGTH TRAINING OPTION 2**  
**ISOMETRIC TRAINING PROGRAM**

If you do not have access to free weights or weight machines, isometric exercises – using only your own body weight for resistance – are a great way to build strength, flexibility and endurance. Proper form is key to obtaining the maximum benefits of this program. Be sure to exhale when exerting force during this program.

You are encouraged to review the Candidate Training video demonstrating these exercises before beginning the program. You may access the Candidate Training Video on the Chicago Fire Department's YouTube page, at <https://www.youtube.com/user/ChicagoFireDept> or through the City of Chicago's website at <http://www.cityofchicago.org/city/en/depts/cfd.html>.

## Dynamic Warm Up and Stretch

### Butt Kick

Stand with both feet hip-width distance apart. Kick your heel to your butt, alternating feet for 30 to 60 seconds.



## Power Leg Kick

Kick your leg until it reaches a 90 degree angle. Reach your opposite arm to your toe. Perform this movement, alternate your legs and arms, for a total of 30 to 60 seconds.



## Knee to Chest Stretch

Begin by standing with feet hip-width distance apart. Pull one knee to your chest while balancing on the other leg. Lift the heel of your balancing leg when your opposite knee reaches your chest. Perform this movement, alternating your legs, for 30 to 60 seconds.



## Standing Lunge

Step one leg back, maintaining balance on other leg. Float your back leg parallel to the floor. Tap the toe of your balancing leg with your opposite hand. Perform this movement, alternating your legs, for 30 to 60 seconds.



## Cat Back

Position yourself on all fours, placing your hands and knees directly below you on a soft surface. As you exhale, round your back and pull your abdominal muscles in. As you inhale, curve your spine upwards and look slightly up. Continue this movement for 30 to 60 seconds.



## Lunge Stretch with Lateral Reach

Starting with your feet hip-width distance apart, step one leg back and drop your knee towards the ground to a lunge. Reach towards your back leg with your opposite hand, push your hips forward and twist gently. Make sure the knee of your front leg does not extend over your toe. Straighten your back leg and step your feet back together. Perform this movement, alternating your legs, for 30 to 60 seconds.





## Power Mountain Climb

Start in a low squat with your hands on the ground. Kick one leg back, keeping the other leg bent, near your chest. Alternate your legs every 2 seconds for a total of 30 to 60 seconds.



## Lying Knee Drop

Lay on a flat surface with your knees bent, feet on the ground and arms in a T formation. Bring your knees towards your chest and hold them at a 90 degree angle. Gently drop your knees to alternating sides, getting within 2 to 3 inches of the ground on either side. Continue this movement for 30 to 60 seconds.



## Side Body Stretch

Lying on the ground, extend your legs straight and keep your arms in a T position. With straight legs, cross one leg over your body at a 90 degree angle. Tap your foot on the floor. Bring your leg back to the starting position and repeat on the opposite leg. Perform this movement, alternating legs, for 30 to 60 seconds.



## Core Strength Exercise

### Bicycle

Lying on the ground, with your arms behind your head and your back flat, bring your elbow to your opposite knee in a slow, controlled manner. Perform this movement, alternating elbow to knee for 30 to 60 seconds.



## Static Plank

Place your forearms directly below you on the ground. Align your head and neck with the rest of your body. Hold this plank position, making sure your abdominals are supporting your core, for 30 to 60 seconds.



## Elbow to Knee Crunch

While keeping your lower back pressed firmly to the ground, hold your knees at a 90 degree angle. Place your hands behind your head with your elbows wide. Lift your elbows towards your knees while keeping your back glued to the floor then lower back down. Continue this movement in a slow, controlled manner for 30 to 60 seconds.



## Double Leg Lift

Put your hands under your lower back to ensure your lower back does not lift off ground. Lift your legs to a 90 degree angle so they are perpendicular to the floor. Slowly lower your legs with control until they are 2 to 3 inches off the floor. Slowly lift your legs with control back to a 90 degree position. Continue this movement in a slow, controlled manner for 30 to 60 seconds.



## Plank Hold with Side Toe Tap

Hold plank on your forearms for 30 seconds. Then, reach one leg out to the side several feet, tap your toe, and bring your leg back to the starting position. Alternate legs for 30 seconds while keeping your back straight and abdominals tight.





## Flutter Kick

Put your hands under your lower back to ensure your lower back does not lift off ground. Lift both legs so they are at a couple of inches off the floor. Lift one leg up so that it is at a 90 degree angle. Alternate lifting your legs in a smooth, scissor kick motion for 30 to 60 seconds.



## Curl Down

With one knee bent, sit up at a 90 degree angle with your hands behind your head. Slowly lower body down on five second count. Switch your legs and repeat for 30 to 60 seconds. You can modify this movement by putting your hands on the ground on either side of you.



## Alternate Leg with Arm Extension

Get on all fours with your hands directly below your shoulders and your knees below your hips. Extend your opposite arm and your opposite leg at the same time, keeping your abdominal muscles lifted and your back supported. Perform this movement, alternating your legs and arms, for 30 to 60 seconds.



## Superman

Lie on your stomach with your arms and feet extended. Gently lift and hold your arms and legs several inches off the ground for 30 to 60 seconds.



## Alternate Superman

While lying on the ground with your arms and feet extended, lift one arm and the opposite leg several inches off the ground. Hold for 2 to 3 seconds and alternate your arm and leg. Continue this movement for 30 to 60 seconds.



## Side Plank

Roll onto one side. Place one forearm directly below your shoulder with your feet extended. Lift your hips off the ground, stack your feet and balance on the knife-edge of your foot. You can modify this move by placing one foot slightly in front of the other foot. Lower back down to the ground. Repeat 10 times on this side and then switch to the other side. Continue this movement for a total of 30 to 60 seconds.



## Good Mornings

Standing with your feet hip-width distance apart, place your hands behind your head with your elbows wide. Stand up straight then bend forward in a controlled manner until you reach a 90 degree angle and your upper body is parallel with the floor. Keep your head and back straight. Lift back up to standing in a controlled motion. Continue this movement for 30 to 60 seconds.



## Lower Body Exercise

### 2 Inch Squat

Stand with your feet wider than your shoulders. Bend your knees, keeping your back straight and your head lifted. Squat down 2 inches and lift back up 2 inches. Continue this small, pulsing movement for 30 to 60 seconds.





## Full Squat

With your hands in front of you and your legs wider than shoulder distance, bend your legs and squat to a 90 degree angle. Make sure your heels are on the ground. Lift back up to standing and repeat for 30 seconds. After 30 seconds, hold the squat for 30 seconds.



## Alternating Leg Lunge

Standing with your feet together, step one leg forward several feet, bend your knee and reach both hands towards your front foot. Make sure your front knee does not extend past your toe. Step back up to standing and repeat on the opposite leg. Alternate legs for 30 to 60 seconds.



## Stationary Lunge

Standing with your feet together, step one leg forward several feet, bend your knee and place your hands on your front thigh. Pulse up and down several inches for 30 to 60 seconds. Make sure your front knee does not extend past your toes. Switch your front and back legs and repeat for another 30 to 60 seconds.



## Step Back Lunge with Floor Touch

Standing with your feet together and your back straight, step one leg several feet back, bend your front knee and touch your hands to the ground on either side of your front knee. Make sure your front knee does not extend past your toes. Come back to standing. Perform this movement, alternating your legs, for 30 to 60 seconds.



## Side Step Lunge

Take a big step to one side so that your feet are wider than shoulder distance. Take a wide squat and place your hands on the ground between your legs. Stand back up, take a big step towards the opposite side and repeat. Continue this movement, alternating directions for 30 to 60 seconds.



## Jump Squat

With your hands on your hips, jump up and land softly on your toes with one foot several feet in front of the other. Lower down into a lunge position. Straighten your legs and jump up, switching your front and back legs and landing softly on your toes. Lower down into a lunge position. Continue this movement, alternating legs, for 30 to 60 seconds.



## Calf Raises

Stand with your hands on your hips and your feet hip-width distance apart. Raise your heels off the ground and lower them back down. Continue this movement for 30 to 60 seconds. Then, move your feet several more inches apart. Continue the calf raises for another 30 to 60 seconds.



## Power Pushup

Get into a plank position with your arms directly below your shoulders. You may modify this exercise by either extending your legs straight back with your toes on the ground or placing your knees on the ground with your feet lifted. Either way, keep your back straight and your abdominals lifted. Lower your chest to an inch above the ground so that your elbows come to a 90 degree angle. Push your arms back straight. Perform as many pushups as you can in 30 to 60 seconds.





## Rotation Pushup

Get in the plank position with your forearms on the ground and your feet shoulder distance apart. Lift one arm up towards the ceiling, rotating from the waist. Bring your arm back down and lift your other arm up, rotating from the waist on the opposite side. Perform this movement, alternating sides, for 30 to 60 seconds.



## Plyometric Pushup

Put one hand on the ground about 6 to 8 inches in front of the other hand. Do three pushups, keeping your back straight. Then, change your hands so the opposite hand is 6 to 8 inches in front of the other hand. Perform another three push. Alternate hands, performing three pushups each time, for a total of 30 to 60 seconds.



## Push Up with Chest Touch

Perform a pushup. At the top of the pushup, lift one arm off the ground and place your hand on your heart, balancing on the other arm. Place your hand back down on the ground and lower your chest to one inch of the ground. Lift back up. At the top of the push up, lift the other arm off the ground and place your hand on your heart. Repeat this movement, alternating arms, for 30 to 60 seconds.



## Plank Push Up

Perform a pushup. When you reach the top of the pushup, lift one arm off the ground and extend it straight in front of you. Place your hand back down on the ground and lower your chest to one inch of the ground. Lift back up and at the top of the push up, lift the other arm off the ground and extend it straight in front of you. Repeat this movement, alternating arms, for 30 to 60 seconds.





## Cardiovascular Exercises

### Frogs

Start in a plank position with your hands on the ground. Jump your feet forwards towards your hands and then jump back to a plank. Continue this movement for 30 seconds.



## Bodybuilders (also called Burpees)

Start standing with feet together. Bend your knees and place your hands on the ground in front of you. In a controlled fashion, jump your feet back to a plank position with your hands on the ground. Jump your feet back towards your hands and stand up. Repeat this movement for 30 to 60 seconds.







## Power Mountain Climb

Get into a plank position with your hands on the ground. Bring alternating knees to your chest as fast as you can in a running fashion. Perform this movement for 30 to 60 seconds. Keep your back straight, making sure it is not arched.



## Dips

For upper body development, balance yourself on parallel bars, lower yourself so that your elbows are bent at 90 degrees, straighten your arms and then repeat. Perform this movement for a total of 20 to 30 seconds. To modify this exercise, hold yourself with your arms straight for 10 seconds then lower yourself slowly and repeat 2 to 3 times.



## Pull Ups

Put both hands on a bar with your palms facing out. In a slow, controlled manner, lift your chest towards the bar, lower back down and repeat. To modify this exercise, have a partner hold and lift your legs for you as you pull up and come back down. Perform this movement for 30 to 60 seconds.



**CARDIOVASCULAR PROGRAM OPTION 1**  
**CARDIO-RESPIRATORY TRAINING**

**STAIRMASTER:**

1. Warm-up for 5 minutes by walking briskly or performing calisthenics (ex. jumping jacks.)
2. Stretch your major muscles: hamstrings, quadriceps, calf, etc.
3. Put a weighted vest on. (Choose a vest as close to 50 lbs as you can; a backpack with weights in it will work.) Set stairmaster level for 60 steps per minute.
4. Stay on stairmaster for as long as you reasonably can; record your time (duration).
5. Step off stairmaster, and remove weighted vest.
6. Without resting (drinking water is okay), step back on stairmaster without the vest and stay on for as long as you reasonably can (at 60 steps per minute.) Record your time (duration).
7. Your goal is to increase your duration both with and without vest each time you train.
8. You should perform this program 3 times per week on alternate days, i.e., Mon., Wed., Fri. Perform lower intensity cardio 2 other days per week, like running.
9. REMEMBER THE GOAL OF THIS PROGRAM IS TO INCREASE THE TIME YOU SPEND ON THE STAIRMASTER (even for only a few seconds) EACH TIME YOU TRAIN.

**RUNNING:**

1. Warm-up for 5 minutes by walking briskly or performing calisthenics (ex. jumping jacks.)
2. Begin running at a moderate pace for ½ a mile. Begin doing interval sprints by increasing your run speed to about 90% of your maximum speed for as long as reasonably possible.)
3. At the end of the sprint, reduce intensity to a moderate pace until you are recovered, no longer than 1 minute.
4. Continue alternating between sprints and recovery until you have completed 5 sprints.
5. Finish by running ½ mile at a moderate pace.
6. Each week add 1 sprint interval to the program until you reach 10 intervals.
7. Perform this routine 3 times per week on alternate days, i.e., Mon., Wed., Fri., and perform lower intensity cardio 2 other days per week, like running. Try to increase your distance to 3 miles.
8. Try to increase the duration of each interval from session to session.
9. REMEMBER, THE GOAL OF THIS PROGRAM IS TO INCREASE THE DURATION OF YOUR SPRINT INTERVAL (even for only a few seconds) AT EACH SESSION.

**CARDIOVASCULAR PROGRAM OPTION 2**  
**CARDIO INTERVAL TRAINING**

Keep track of your times. Try to improve slightly each session. Use perfect form on the resistance exercise. Emphasis should be quality, not speed.

Phase 1: perform two to three times per week for one to two weeks.

- 1) Stretch
- 2) 10 Minute Jog
- 3) Run 1/4 mile
- 4) 25 Squats with hands behind your head
  - a) Walk briskly for 1/4 mile
  - b) 30 second plank

Repeat 3) and 4) for a total of 4 cycles. Rest exactly 45 seconds after 3) before you begin 4).

Phase 2: Perform two times per week for one to two weeks.

- 1) Stretch
- 2) 10 Minute Jog
- 3) Run 1/8 mile (approx. 125 yards)
- 4) Bleacher or hill run– sprint up (incline) and jog back down.

Repeat 3) and 4) for a total of 6 cycles. Your rest is the jog from bleacher to bleacher.

Phase 3: Perform two times per week for one to two weeks.

- 1) Stretch
- 2) 10 Minute Jog
- 3) Sprint 30 seconds, then perform 20 Push Ups. Sprint another 30 seconds then perform 25 prisoner squats (hands behind your head)
- 4) Jog for 1 minute.

Rest exactly 90 seconds and Repeat 3 & 4 for a total of 4 times.

- 5) Jog for 5 minutes
- 6) Stretch