

# Firefighter Candidate Preparedness

The Glendale Fire Department expresses enthusiasm for your exploration of a career as a firefighter. The role of a firefighter entails both physical and mental challenges, and our aim is to facilitate your success throughout the recruiting process. This guide is designed to augment your likelihood of success as a firefighter candidate by elucidating the physical demands and prerequisites. Its purpose is to aid in developing firefighter preparedness before entering the hiring process. The guide aims to provide a fundamental compilation of physical and mental attributes necessary for success. While not a one-size-fits-all program, it serves to address questions and guide you on the path to success.

## **Movement Preparation, Mobility, and Central Nervous System (CNS) Preparation**

The body is prepared for upcoming tasks by enhancing its ability to move freely and increasing range of motion. This preparation mitigates the risk of injury by elevating blood flow, raising core temperature, and elongating muscle tissues. Dynamic movements such as the world's greatest stretch, high knee cradle to lunge, and hamstring scoop stretch are employed, followed by explosive movements such as high knees, broad jumps, and quick starts to establish a connection between the brain and body.

## **Strength Training**

Strength is addressed through the utilization of primal movement patterns, including squatting, lunging, hinging, horizontal push/pull, vertical push/pull, step-ups, and rotational movement. These patterns are directly applicable to job-specific tasks expected in a fire academy, such as progressive hose pulls, carrying varying loads upstairs and on flat ground, managing charged hose lines, and securing waterways. Emphasis is placed on performance over suboptimal function, with training goals aligned with job functions.

## **Energy Systems Development**

Recognizing firefighters as athletes, cardiovascular capabilities are trained across different modalities using the tiered system of Energy Systems Development (ESD). This includes Long (aerobic), Medium (anaerobic), and Short (lactic) systems. Training examples encompass weighted vest hikes, HIIT-style workouts, and short sprint-type work, tailored to individual perceived maximum heart rates.

## **General Physical Preparedness (GPP) and Job-Specific Skills**

GPP is employed to simulate the tasks and skills of a firefighter recruit or candidate. Tasks include heavy equipment carries, high-rise operations under heavy load, static and dynamic hose pulls, ceiling and door breach, save-your-own drills, ventilation, vehicle extrication, and tool and ladder raises under

extreme load and time constraints. Grip and aerobic capacity are highlighted, with exercises like heavy sleds, farmer's carries, and weight vest hikes mirroring academy training.

### **Acclimation**

Candidates are exposed to strenuous workloads, long days, and challenging weather conditions. Physical and mental acclimation is recommended, gradually expanding training outside comfort zones and in varying weather conditions. Attention to hydration and electrolyte balance during such training is emphasized.

### **Nutrition**

A well-balanced diet is paramount for regeneration, growth, and overall well-being. Simple dietary guidelines are provided, emphasizing lean protein, complex carbohydrates, and a variety of vegetables and fruits. Caloric needs are determined based on body weight, with specific recommendations for protein, carbohydrate, and fat intake.

### **The CPAT Training Program:**

The CPAT Training program consists of two training programs. The first program is the aerobic training program and the interval program. Both programs complement each other and improve your aerobic and anaerobic fitness specific to the Candidate Physical Ability Test.

### **Aerobic Training:**

The cardiopulmonary endurance program should begin at a level that is considered "moderately difficult" but not "difficult." Your intensity should not be so high that you cannot speak during the exercise. The program below consists of a series of progressive levels. As you adapt to each step, you should move up to the next level. This program should be done 3 to 5 days per week.

### **Interval Training:**

Interval training involves a repeated series of exercise activities interspersed with rest or relief periods. This is an excellent tool for improving both aerobic and anaerobic endurance. In this program running intervals are performed on Tuesdays and Thursdays. It is important that interval days have at least one day of slow easy running between them. This provides the recovery necessary to prevent over training.

## Phase One

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>L e v e l 1</b>	Run 1 mile at an easy pace being sure to be able to talk the entire time.	Run 30 seconds @ somewhat hard pace then walk for 30 seconds. Repeat this for a total of 1 mile.	Run 1 mile at an easy pace being sure to be able to talk the entire time.	Run 30 seconds @ somewhat hard pace then walk for 30 seconds. Repeat this for a total of 1 mile.	Run 1 mile at an easy pace being sure to be able to talk the entire time.
<b>L e v e l 2</b>	Run 1.5 miles at an easy pace being sure to be able to talk the entire time.	Run 30 seconds @ somewhat hard pace then walk for 30 seconds. Repeat this for a total of 1.5 miles.	Run 1.5 miles at an easy pace being sure to be able to talk the entire time.	Run 30 seconds @ somewhat hard pace then walk for 30 seconds. Repeat this for a total of 1.5 miles.	Run 1.5 miles at an easy pace being sure to be able to talk the entire time.
<b>L e v e l 3</b>	Run 2 miles at an easy pace being sure to be able to talk the entire time.	Run 60 seconds @ somewhat hard pace then walk for 60 seconds. Repeat this for a total of 2 miles.	Run 2 miles at an easy pace being sure to be able to talk the entire time.	Run 60 seconds @ somewhat hard pace then walk for 60 seconds. Repeat this for a total of 2 miles.	Run 2 miles at an easy pace being sure to be able to talk the entire time.
<b>L e v e l 4</b>	Run 2.5 miles at an easy pace being sure to be able to talk the entire time.	Run 60 seconds @ somewhat hard pace then walk for 60 seconds. Repeat this for a total of 2.5 miles.	Run 2.5 miles at an easy pace being sure to be able to talk the entire time.	Run 60 seconds @ somewhat hard pace then walk for 60 seconds. Repeat this for a total of 2.5 miles.	Run 2.5 miles at an easy pace being sure to be able to talk the entire time.
<b>L e v e l 5</b>	Run 3 miles at an easy pace being sure to be able to talk the entire time.	Run 90 seconds @ somewhat hard pace then walk for 90 seconds. Repeat this for a total of 3 miles.	Run 3 miles at an easy pace being sure to be able to talk the entire time.	Run 90 seconds @ somewhat hard pace then walk for 90 seconds. Repeat this for a total of 3 miles.	Run 3 miles at an easy pace being sure to be able to talk the entire time.

## Phase Two

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>L</b> <b>e</b> <b>v</b> <b>e</b> <b>I</b>  <b>6</b>	Run 3 miles at an easy pace being sure to be able to talk the entire time.	Run @ easy pace for 3 minutes then run stairs moderately hard for 1 minute	Run 1.5 miles easy pace	Run @ easy pace for 3 minutes then run stairs moderately hard for 1 minute.	Run 3 miles at an easy pace being sure to be able to talk the entire time.
<b>L</b> <b>e</b> <b>v</b> <b>e</b> <b>I</b>  <b>7</b>	Run 3 miles at an easy pace being sure to be able to talk the entire time.	Run @ easy pace for 3 minutes then run stairs moderately hard for 90 seconds	Run 1.5 miles easy pace	Run @ easy pace for 3 minutes then run stairs moderately hard for 90 seconds	Run 3 miles at an easy pace being sure to be able to talk the entire time.
<b>L</b> <b>e</b> <b>v</b> <b>e</b> <b>I</b>  <b>8</b>	Run 3 miles at an easy pace being sure to be able to talk the entire time.	Run @ easy pace for 3 minutes then run stairs moderately hard for 2 minutes	Run 1.5 miles easy pace	Run @ easy pace for 3 minutes then run stairs moderately hard for 2 minutes	Run 3 miles at an easy pace being sure to be able to talk the entire time.
<b>L</b> <b>e</b> <b>v</b> <b>e</b> <b>I</b>  <b>9</b>	Run 3 miles at an easy pace being sure to be able to talk the entire time.	Run @ easy pace for 3 minutes then run stairs moderately hard for 2 minutes and 30 seconds.	Run 1.5 miles easy pace	Run @ easy pace for 3 minutes then run stairs moderately hard for 2 minutes and 30 seconds.	Run 3 miles at an easy pace being sure to be able to talk the entire time.
<b>L</b> <b>e</b> <b>v</b> <b>e</b> <b>I</b>  <b>10</b>	Run 3 miles at an easy pace being sure to be able to talk the entire time.	Run @ easy pace for 3 minutes then run stairs moderately hard for 3 minutes	Run 1.5 miles easy pace	Run @ easy pace for 3 minutes then run stairs moderately hard for 3 minutes	Run 3 miles at an easy pace being sure to be able to talk the entire time.

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## **Muscular Strength/Endurance Program**

This is a resistance program designed to improve your total body strength and endurance. This is not a bodybuilding or a power-lifting program. It is designed to prepare you specifically for the Candidate Physical Ability Test. If you are not familiar with lifting programs, have any joint pain or feel uncomfortable performing these exercises, you should seek the advice of a professional trainer.

This program is designed to be performed three days a week. This means that you will not be lifting 4 days a week. These rest days are just as important as your workout days. A critical mistake made by some applicants is over training when preparing for the Candidate Physical Ability Test. If you feel you are over training, refer back to the exercise principles, slow down your progression, reduce your overload, and allow for adequate rest between workouts.

This workout should follow the previously mentioned warm-up and stretching program. This program is designed to be a circuit workout. Circuit training has been proven to be a very effective and efficient way to improve muscular strength, muscular endurance and cardiovascular endurance. Once you begin this workout, you will lift at each station for 10 repetitions and then move on to the next exercise. Rest between exercises should not exceed 30 seconds unless you are experiencing some discomfort. For safety purposes, it is recommended that you lift with a partner and spot each other when necessary.

## **General Safety Tips While Performing Resistance Training**

- **Always lift with a partner.**
- **Ask for help from an expert if you don't know what you are doing.**
- **Progress slowly to avoid injuries.**
- **Never show off by attempting to lift more weight than you normally lift.**
- **Use proper lifting technique when lifting weight plates and dumbbells.**
- **Never drink alcohol or take medications that may cause drowsiness prior to lifting weights.**

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- **Do not lift too quickly, always control the weights.**
  - **Always use strict form. Proper technique is more important than the amount of weight lifted.**
  - **Keep head in a neutral position, looking straight ahead and not upwards or downwards.**

### **Progression**

Unless you are an experienced weightlifter, it is recommended that you begin by doing one complete cycle through this circuit. After the first week, if you are not still getting muscle soreness 24 to 48 hours after your workouts, you can progress to two cycles through the circuit. After the second week, if you are not still getting muscle soreness 24 to 48 hours after your workouts, you can progress to three cycles through the circuit. Although it is not critical, it is recommended that you follow the exercises in order. If, after progressing to the next level, you feel very sore, you may want to decrease the weights and the number of times you complete the circuit.

### **Weight Training Circuit Workout**

#### **1. Seated Leg Press**

*Quadriceps, Hamstrings, Glutes, Calves*

**CPAT Events: Stair Climb, Hose Drag, Ladder Raise, Forcible Entry, Rescue, Ceiling Breach and Pull**

Set appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Place feet flat on push platform about shoulder width apart and toes pointed slightly outward.
- Adjust seat so knees are flexed at 90 degrees.
- Push weight up while exhaling.
- Stop just short of locking your knees.
- Keep knees in alignment with feet.
- Keep head in neutral position.



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## 2. DB Military Press

*Deltoids, Triceps, Trapezius*

**CPAT Events: Ladder Raise, Search, Ceiling Breach and Pull**

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Raise two dumbbells to height of shoulders.
- With palms facing forward, alternate pressing each dumbbell upward toward the ceiling, one at a time.
- Exhale while lifting.
- Keep head in neutral position.
- Using slight leg push is acceptable.
- Repeat with other arm.



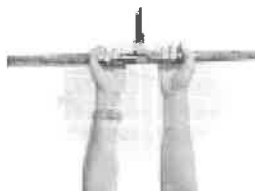
## 3. Lat Pull Down

*Latissimusdorsi, Rhomboids, Posterior Deltoids, Biceps*

**CPAT Events: Hose Drag, Ladder Extension Forcible Entry, Rescue, Ceiling Breach and Pull**

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Adjust seat and leg hold to allow full range of motion.
- Hold bar in chin up grip with hands close together and palms toward face.
- Pull bar straight down to just below the chin.
- Exhale while pulling weight down.
- Return to starting position.



#### 4. DB Split-Squats

*Glutes, Quadriceps, Hamstrings, Calves*

**CPAT Events: Stair Climb, Hose Drag, Ladder Raise, Forcible Entry, Search, Rescue Ceiling Pull and Breach**

Pick a light weight (many people can start with no weights at all). Do not start with more than 10 lbs.

- Stand with feet together then step backward with one foot about 26".
- Keep back straight and arms down at side with head neutral, slowly bend both legs.
- Lower yourself slowly until your left knee barely touches the floor.
- Forward leg should remain vertical throughout motion with knee directly over ankle. If knee tends to move forward over the toes, adjust back foot further backward.
- Return to the starting position.
- Inhale while lowering and exhale while pushing back up into upright position.
- Repeat with opposite leg.



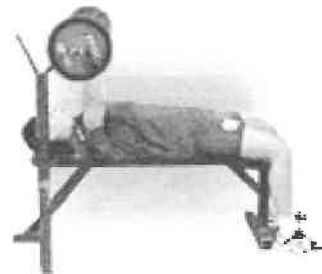
#### 5. Bench Press

*Pectorals, Deltoids, Triceps*

**CPAT Events: Ladder Raise, Forcible Entry, Search, Ceiling Breach and Pull**

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Lie on bench, feet flat on floor.
- Hold bar with arms shoulder width apart or slightly wider.
- Lower bar to middle of chest.
- Push bar up to starting position.
- Inhale while lowering and exhale while pushing back up.





## 6. DB Row

*Latisimussdorsi, Rhomboids, Posterior Deltoids, Trapezius, Biceps*

**CPAT Events: Hose Pull, Ladder Extension, Forcible Entry, Rescue, Ceiling Breach and Pull**

- Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.
- Standing to right of bench, place left knee on bench and support upper body with left (non-lifting) arm.
- Keep head in neutral position.
- Pull DB from ground into waist area with right arm.
- Lower DB back to starting position.
- Avoid twisting at waist.
- Inhale while lowering weight and exhale while lifting weight.
- Repeat sequence on opposite side.



## 7. Leg Extension

*Quadriceps*

**CPAT Events: Stair Climb, Hose Pull, Ladder Raise, Forcible Entry, Search, Rescue**

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Adjust machine so that backs of knees are against pad and back pad is supporting lower back.
- Extend knees stopping just before the knees lock.
- Slowly lower weight to starting position.
- Exhale while pushing weight and inhale while lowering weight.



**Note: This exercise should not be performed by individuals who have undergone reconstructive knee surgery.**

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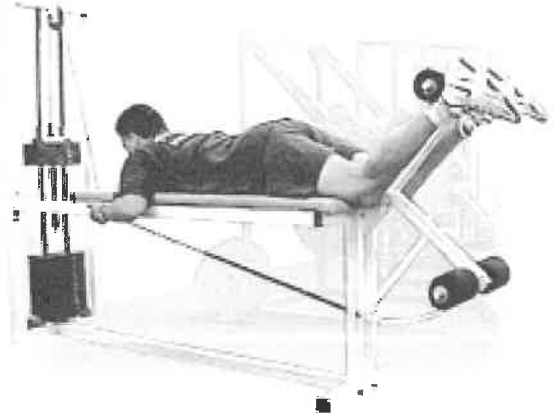
## 8. Leg Curl

*Hamstrings*

**CPAT Events: Stair Climb, Hose Pull, Ladder Raise, Forcible Entry, Rescue**

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Lie flat on machine with top of knees just off the pad and ankle roller situated above the heels.
- Flex the knee until ankle roller reaches the buttocks. Keep hips down and stomach in contact with pad throughout the motion.
- Slowly lower weight to starting position.
- Inhale while pulling weight up and exhale while lowering weight down.



## 9. DB Curl

*Biceps, Forearms*

**CPAT Events: Hose Drag, Ladder Extension, Forcible Entry, Rescue, Ceiling Breach and Pull**

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Stand up with knees slightly bent.
- Begin with arms down at sides.
- Bend right elbow bringing the dumbbell toward right shoulder.
- Slowly lower dumbbell to starting position.
- Exhale while raising weight and inhale while lowering weight.
- Repeat sequence on opposite side.



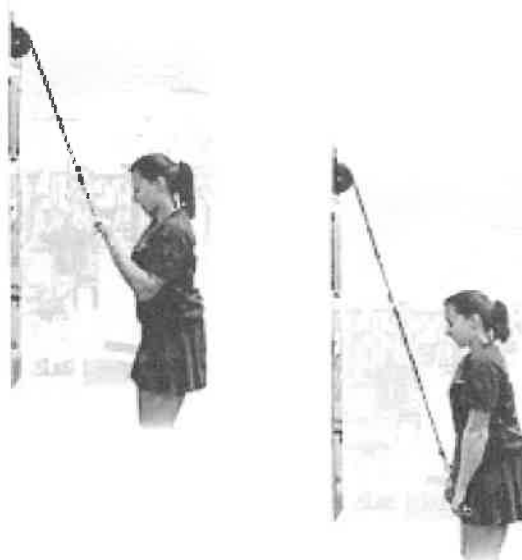
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## 10. Tricep Extension

*Triceps*

**CPAT Events: Ladder Raise, Forcible Entry, Search, Ceiling Breach and Pull**

- Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.
- Stand up with knees slightly bent.
- Place hands on bar about 6" apart.
- Keeping upper arms at sides, extend the elbows until arms are almost straight and bar is at mid-thigh.
- Slowly return bar to an elbow flexed position at mid-chest level. Upper arms should remain in contact with sides. Do not allow elbows to move forward, away from body.
- Exhale while pushing bar down and inhale while returning bar back up.



## 11. Abdominal Curls

*Abdominal Muscles*

**CPAT Events: All Events**

- Sit on ground with knees bent at 90 degrees.
- Keeping feet flat on floor and hands at your side, slowly curl your torso so chin approaches your chest.
- Do not raise torso to more than a 45-degree angle off the floor.
- Slowly return to slightly above your starting position, keeping tension on abdominal muscles at all times.
- Exhale while curling up and inhale while lowering torso back down.



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## 12. Swimmers

*Erector Spinae (Lower back), Glutes*

**CPAT Events: All Events**

- Lie face down on ground with feet together.
- Place arms straight out in front.
- Move the right arm and left leg up at the same time.
- As you return the right arm and left leg, move the left arm and right leg up at the same time.
- Continue alternating in a moderate cadence.



## 13. Wrist Rollers

*Forearm muscles*

**CPAT Events: Hose Drag, Equipment Carry, Ladder Extension, Forcible Entry, Rescue, Ceiling Breach and Pull**

- Stand erect
- Set machine to “somewhat difficult” resistance
- Grab machine with both palms facing the floor
- Alternately roll each wrist towards the ceiling
- Repeat with palms upward when done



## 14. Hand Grippers

*Forearm muscles*

**CPAT Events: Hose Drag, Equipment Carry, Ladder Extensior Forcible Entry, Rescue, Ceiling Breach and Pull**

- Stand erect
- Set machine to “somewhat difficult” resistance
- Grab machine with both hands
- Alternately close grip to squeeze machine

