

**Calgary**



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# Recruit Training

## Fire Task Exercise Guide

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This manual is intended for informational purposes only and is not a substitute to a consultation. To reduce the risk of injury, always consult with a certified exercise professional or your health care provider before undertaking new, or unfamiliar, types of strenuous exercise.

It is important to perform exercises correctly, especially in the presence of a program that is progressive in nature. If you are in any way uncertain about exercise technique or any specific training principles, we highly recommend you seek out the assistance of certified exercise professional.

If you have questions or concerns regarding whether it is safe to begin exercise, please complete the [Canadian Society for Exercise Physiology's General Activity Questionnaire](#). This manual is intended as a guide and should not be considered as a comprehensive training program for all firefighter applicants.

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## Introduction

Below are a list of tasks that you can use to evaluate your readiness for Recruit Training Academy. Complete the **Test yourself** components in this manual and if you find the them difficult this indicates that you require more preparation. The amount of time needed to prepare will be individual and greatly depend on your current fitness status. For this reason, we highly recommend you give yourself as much time to **Test yourself** as possible so that you may seek out assistance from a trainer if it is required. Specific exercises have been listed in this manual to help you prepare for certain fire tasks; apply gradual progression to these exercises to increase your readiness for training. From experience we do know that have high levels of mobility, upper body strength along with cardiovascular and muscular endurance will increase your chances of success during training.

Please note that the information provided within this document is intended only as an overview; recruits will be taught the techniques and skills required to complete each task safely and effectively as part of the fire training curriculum.

Recruits will be evaluated on all tasks while wearing full turnout gear, including a self-contained breathing apparatus (SCBA), thick gloves, and a helmet (approximately 60-lbs). You may or may not be “on air” during these tasks.

Each exercise listed in this manual is hyperlinked to a youtube video for instruction. Click on the exercise to see the video.

### General Preparation for Training Academy

- Wear a weighted vest and thick work gloves for exercise and activities of daily living (e.g., yardwork) to train core, back endurance and grip strength in a functional way. This will help simulate long periods of work in firefighting gear.
- If a weighted vest is unavailable to you, try wearing two backpacks, one on the front of your body and one on the back of your body. Load them each with a weight plate and sinch tightly.
- Consider completing manual work, or exercise in warm or hot conditions for 20-30 minutes at a time while wearing sweatpants and sweatshirt. Use this time to learn about your body’s hydration and recovery needs. This will increase your mental and physical tolerance to work in heat in a sensible way.
- Train your cardiovascular system regularly and practice regulating your breathing.
- Strength train regularly, particularly unilaterally, and with uneven loads.
- Prioritize trunk and lower back endurance training utilizing various positions, such as standing, lying down, kneeling, lunging, and crawling.

## General Mobility

Various hip, groin and shoulder mobility exercises will be beneficial for all movements, particularly search, rescue, and hose maneuvering activities. Mobility is more difficult while wearing weighted and cumbersome gear. Incorporate the following exercises into your general routine:

- [Cossack squats](#)
- [Duck walks](#)
- [Quadruped kick through](#)
- [Shin box switch hip lift](#)
- [Shoulder dowel pullovers](#)
- [T spine rotation on wall](#)
- [Scapular pull ups](#)
- [Prone snow angels](#)
- [Child's pose with shoulder flexion](#)
- [Windmills](#)
- [Turkish get-up](#)

### Fire tasks to review in this manual:

1. Ladder work
2. Tool hoist
3. Search
4. Dummy drags and lifts
5. Hose work

## Ladder Work

Lift, carry, throw and extend a 24-foot (14-foot bedded) 72lbs ladder and a 28-foot (16-foot bedded) 89lbs ladder.

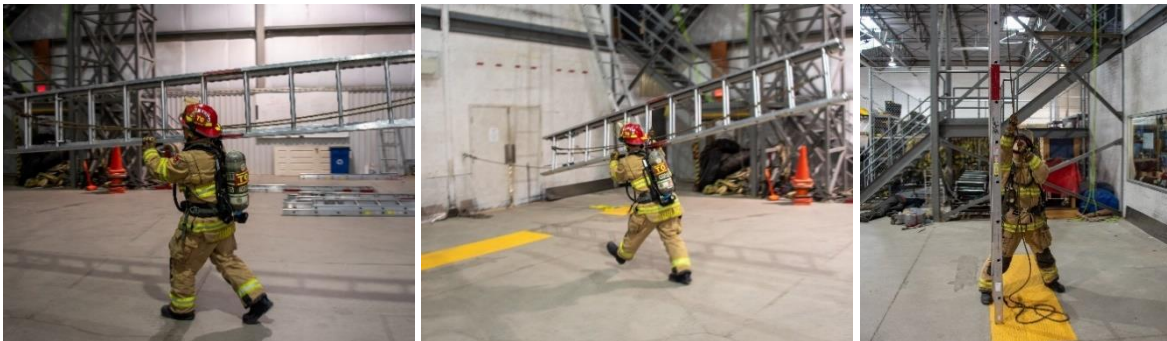
### How

Remove ladder from rack at shoulder height. Balance on right shoulder and walk to target placement point. Leverage the ladder off your shoulder using lower and upper body strength in a fluid motion, raising the ladder to a standing, balanced position.

Stabilize the ladder with your body and extend the ladder to full length using a rope pull. Control the ladder as you return it to the start position.

Reposition the ladder on your shoulder and return to the rack position.

Those of a shorter height may need to rely on their lower body power mechanics more than a taller person who can possibly leverage their upper body strength differently.



### Fitness components

- Upper body strength
- Lower body strength
- Core and trunk endurance
- Grip strength

#### Test yourself

##### [Deadlift landmine to rotational press](#)

Begin with 10-25lbs weight plate on barbell x 3-5 reps per side to build strength. Progress to 35-45lbs weight plate on barbell x 1 rep per side.

This test simulates leveraging a weight similar to a fire ladder above your head using full body coordination. Requires upper and lower body strength.

#### Training exercises

1. [Barbell clean and press](#) or [dumbbell shoulder press](#)
2. [Racked and overhead unilateral carries](#)
3. [Landmine lunge and press](#)
4. [Straight arm cable pull down](#) (long attachment)
5. [Farmer's/suitcase carry with gloves on](#)
6. Optional: if you have access to a heavy sandbag, carry on one shoulder

## Tool Hoist

Hoist a hose coil up 2 to 4 stories using a rope and lower back down to the ground with control.

### **How**

Lean over a railing and pull a rope with a 45lbs hose coil attached. Use a hand over hand pulling technique, thumbs up, until hose coil reaches railing. Lift coil over railing and place it on the floor. Pick it back up and with control and lower the coil to the ground without losing control of the rope (do not let it slide between hands).

An efficient pull will use the entire body versus just upper body strength. Your height in relation to the railing height may affect your ability to do this.



### **Fitness Components**

- Grip strength
- Upper body strength and endurance
- Core and trunk endurance

#### **Test yourself**

[Alternating upright row](#) of 50 lbs dumbbells or kettlebells in each hand for 30 seconds, rest 5 seconds, then repeat another 30 seconds.

This test simulates the coordination and upper body strength/endurance required in the tool hoist activity. Also develops grip.

#### **Training exercises**

1. [Single arm cable upright row](#)
2. [Sled or plate rope pull](#) with hose or battle rope
3. [Farmer's carry with gloves](#)
4. [Prone incline bench alternating dumbbell row](#)
5. [Single arm cable pull with rotation](#)

## Search

Search an area with low visibility to either rule out a rescue or complete a rescue.

### *How*

Enter a room on knees, staying low, and complete a series of lunging slides along the floor, sweeping arms in full range of motion along walls. Lower onto belly and sweep floor with arms in full range of motion, push body up and slide laterally to continue sweeping the area. Movements will vary from kneeling, crawling, lying, pushing up from floor and sweeping arms in full range of motion of the shoulder. Movements will be done at a quick pace and a search can last for up to 25 minutes. This is a cardio intensive activity, and you will experience heat and sweating.



### *Fitness components*

- Heat tolerance
- Cardiovascular endurance
- Metabolic conditioning
- Shoulder and hip mobility
- Upper body, lower body and core/trunk endurance



<p><b>Test yourself</b></p> <p>Obstacle course with vest and gloves on:</p> <ul style="list-style-type: none"> <li>• <a href="#">Alternating steps ups with weight vest</a> x20 (onto surface between stair and chair height)</li> <li>• <a href="#">Bear crawl with weight vest forward</a> 10 steps</li> <li>• <a href="#">Low impact burpee with weight vest</a> x 10</li> <li>• <a href="#">Bear crawl with weight vest backward</a> 10 steps</li> </ul> <p>Repeat x5</p> <p>Focus on pacing yourself, regulating breathing, maintaining proper form. If the time to complete decreases as you practice, you are on the right track.</p> <p>This test simulates the cardiovascular and muscular endurance needed to perform the search activity with the additional weight of gear. Also mimics the variety of movement patterns required for this activity.</p>	<p><b>Training Exercises</b></p> <ol style="list-style-type: none"> <li>1. <a href="#">Low impact burpee with weight vest</a></li> <li>2. <a href="#">Front racked weighted lunges</a></li> <li>3. <a href="#">Bear crawl KB pull through</a></li> <li>4. (can add in <a href="#">forward crawling</a> or <a href="#">lateral crawling</a> as well)</li> <li>5. <a href="#">Push ups with weight vest</a></li> <li>6. <a href="#">Plank rotations with weight vest</a></li> </ol>
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## Dummy Drags and Lifts

Simulate rescue techniques with a dummy weighing approximately 160 lbs. You may also have to complete these techniques with an instructor, or another class member so rescue weight may vary. Rescue distance will also vary depending on the scenario.

### **How**

#### **Kneeling drag**

Get on one knee and cross dummy ankles. Grab around shins, as close to knees as you can. Hold dummy close to your body. Extend front leg forward and slide your body and back knee toward front foot. Drag the dummy with you.



#### **Reverse drag with elbow lock**

Squat or kneel on the floor behind the dummy's head. Loop arms under dummy armpits, crossing the dummy's arms over chest and holding forearms. Deadlift to stand up and lift dummy up off the ground, the hips or legs of the dummy will still drag on the ground depending on how tall you are or how high you lift the dummy. Bend knees slightly and walk backwards, dragging the dummy out of the area.



#### **Reverse foot hold drag**

Stand at the foot of the dummy and cross the dummy's ankles, grabbing firmly onto the feet. Bend knees and sit hips back slightly as you drag the dummy out of the area by walking backwards.

**Fitness components**

- Grip strength
- Upper and lower body strength
- Upper and lower body endurance
- Core endurance
- Metabolic conditioning
- Hip mobility

<p><b>Test yourself</b></p> <p><a href="#">Low sled drag with cable attachment handles</a>, elbows bent, with weight vest and work gloves on.</p> <p>Weight recommendation: Approx 160lbs (be sure to check the weight of the sled and then load it accordingly)</p> <p>Duration: for 45 seconds, rest 30, repeat x 5</p> <p>This test simulates the strength and endurance needed to pull the weight of a potential victim a certain distance in a rescue scenario.</p>	<p><b>Training exercises</b></p> <ol style="list-style-type: none"> <li>1. <a href="#">Sled pulls, forward sled pull, lateral sled pulls</a></li> <li>2. <a href="#">Quadruped KB pull through</a></li> <li>3. <a href="#">Kneeling slide with heavy med ball</a></li> <li>4. <a href="#">Front racked kettlebell squat</a> or <a href="#">Zercher squat</a></li> <li>5. <a href="#">Deadlift</a></li> </ol>
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## Hose Work

Simulate pulling a charged hose from standing and half-kneeling positions.

### **How**

#### **Standing**

Hold a length of hose against hip, stabilize and pull the hose as you walk.



#### **Kneeling**

Hold the hose in your arms and allow it to travel near your hip. Get into a lunged position with one leg forward and other knee on the ground. Extend front leg forward and slide back knee toward front leg as you move across the floor, dragging the hose with you. Stay low, drive with your legs and lead with your hips. Body should stay square with head up. See [this video](#) for a demonstration of the movement.



**Fitness components**

- Upper body strength and endurance
- Grip strength
- Core endurance
- Metabolic conditioning
- Mobility when kneeling

<p><b>Test yourself</b></p> <p><a href="#">Forward sled pull (grip at hips)</a>: Wearing a weighted vest and thick work gloves, loop a TRX on a weighted sled with the ends held by a hand on each hip. Drag the sled at a brisk pace.</p> <p>Weight: at least 45 lb plate on the sled</p> <p>Duration: 30 seconds, rest 30 sec x5 sets</p> <p>Simulates handling a charged hose at hip height in a linear movement pattern for a required distance. Develops grip strength and lower body strength and endurance.</p>	<p><b>Training exercises</b></p> <ol style="list-style-type: none"> <li>1. <a href="#">Sled pushing, forward sled pulling</a></li> <li>2. <a href="#">Walking KB lunge with weight vest</a></li> <li>3. <a href="#">Partner resisted walking lunges</a></li> <li>4. <a href="#">Racked KB lateral lunges</a></li> <li>5. <a href="#">Split stance pallof press</a></li> </ol>
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## Additional Resources

Book: Human Performance for Tactical Athletes by O2X Human Performance

Book: Becoming a Supple Leopard by Dr. Kelly Starrett

Website: [Exercises for individual PAT tasks | Fire Rescue Victoria - Recruitment \(firefighter.vic.gov.au\)](https://www.firefighter.vic.gov.au/exercises-for-individual-pat-tasks)