



Medical Clearance Form

This document outlines the physical demands of live-fire training to ensure applicant medical fitness. Further information can be obtained by contacting the Admissions Office at The Canadian Fire Rescue College at (855) 710-2372 or via email to admissions@canadianfirerescuecollege.com. The following is a summary of these physical demands:

The program combines theoretical and practical study of structural/industrial firefighting with a structured, credited physical training class. The practical component typically involves multiple days of simulated and real fire suppression exercises, exposing students to the physical demands of firefighting. A typical practical day may include 4-6 training scenarios, each involving 15-60 minutes of exposure to severe environmental and physical stress. The Physical Training (PT) session consists of five one-hour sessions per week. These workouts are designed to push all of the body's energy systems (aerobic, anaerobic, and muscular strength/endurance) to their limits. Workouts include high-intensity circuits, 5-10 km runs, 3 storey stair climb circuits, hill/bleacher training, and industry-specific training (Fire-Fit-Combat Challenge Simulation).

The following are some of the major stressors involved:

1. **Extreme Temperature Fluctuations:** Students must perform physically demanding work in hot (up to 150°C or 400°F) and humid (up to 100%) atmospheres while wearing personal protective equipment that significantly impairs thermoregulation. (Core body temperatures can reach up to 40°C after 20 minutes of hard work).¹
2. **Weight of Clothing and Equipment:** Firefighting clothing and equipment weighs at least 22 kg (50 lb).¹
3. **Use of SCBA:** Performing physically demanding work while wearing positive pressure self-contained breathing apparatus (SCBA) presents significant resistance to expiratory flow and may reduce peak exercise ventilation by approximately 15%.^{1,2}
4. **Rapid Transitions:** Students must make rapid transitions from rest to near maximal exertion without warm-up periods.¹
5. **Challenging Environments:** Operations occur in environments with high noise, poor visibility, limited mobility; at heights; and in enclosed or confined spaces.¹
6. **Use of Tools:** Students use hoses, ladders, and manual or power tools weighing up to 45 kg (100 lb).^{3,4}
7. **High Energy Expenditure:** Energy expenditure is estimated to average approximately 8-10 METS^{4,5} and may exceed 12 METS.¹ Completion of Stage 3 of the Bruce treadmill protocol (3.4 mph and 14% grade) or running at 6.0 mph on level ground is equivalent to about 10 METS.
8. **Cardiovascular Stress:** Training scenarios result in high levels of cardiovascular stress, with average heart rates of 70% of the age-predicted maximum and brief, repeated periods of near maximal heart rate (90+%).⁶



¹National Fire Protection Agency. (2003) Standard 1582, Medical Requirements for Fire Fighters and Information for Fire Department Physicians. Quincy, MA: National Fire Protection Association.

²Eves ND, Jones RL, Petersen SR (2005) The influence of the self-contained breathing apparatus (SCBA) on ventilatory function and maximal exercise. Canadian Journal of Applied Physiology 30(5): 507-519.

³DOT Occupational Codes. (1993) Selected Characteristics of Occupations Defined in the Revised Dictionary of Occupational Titles, U.S. Dept. of Labor, U.S. Government Printing Office, Washington, D.C.

⁴Gledhill, N., and Jamnik, V. K. (1992). Characterization of the physical demands of firefighting. Canadian Journal of Sport Science. 17: 207-213.

⁵Sothmann, M., Saupe, K., Jansenof, D., Blaney, J., Fuhrman, S. D., Woulfe, T., Raven, P., Pawelczyk, J., Dotson, C., Landy, F., Smith, J. J., and Davis, P. (1990). Advancing age and the cardiorespiratory stress of fire suppression: determining a minimum standard for aerobic fitness. Human Performance. 3: 217-236.

⁶Dreger, RW, Petersen, SR, Dlin RA. Heart rate responses to firefighter training. Final report submitted to the Alberta Fire Training School, March 2002.



Name _____

Date of Birth (D/M/Y): / /

Height ____ in. cm. Weight _____ lb. kg.

Vision: Uncorrected _____ Corrected _____

Right: 20/ 20/

Left: 20/ 20/

Both: 20/ 20/

Colour: Normal _____ Impaired _____

Hearing:

R Normal _____ Impaired _____

L Normal _____ Impaired _____

Blood Pressure: / mmHg Pulse: _____ bpm

	Normal	Abnormal	Not Examined	Findings	Follow-up Suggested
<i>General Assessment</i>					
<i>E.N.T.</i>					
<i>Pulmonary</i>					
<i>Cardiovascular</i>					
<i>Abdomen</i>					
<i>Musculoskeletal</i>					
<i>Genitourinary</i>					
<i>Neurological</i>					
<i>Comments on Physical Examination:</i>					



Medical Clearance

I have examined _____ and am satisfied that this individual is medically fit to participate in the fire training course described above.

Physician's name: _____

Address: _____

Telephone: _____

Physician's signature: _____

Date: _____

The costs associated with completion of this form are the responsibility of the applicant.