

# Firefighter Illness, Injury & Death in Canada, 2006–2015

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## Background

Canadian firefighters can experience many hazards on the job. Injuries can lead to prolonged periods of time off of work, long-term health effects, or even death.

A firefighter's duties include:

- Emergency Medical Aid
- Rescue
- Responding to Motor Vehicle Crashes
- Safety Education
- Fire Suppression

## Risk Factors

- Contagious & infectious diseases
- Strenuous physical labour
- Traumatic events
- Extreme temperature
- Repetitive or prolonged activity
- Excessive noise
- Unstable structures or falling objects
- Shift work & long hours
- Falling from extreme heights

Risk of illness, injury, and mental health challenges include



In Canada, there are more than  
**25,000** professional firefighters  
**80,000** volunteer firefighters

Each year,  
**1 IN EVERY 4,255** firefighters take time off work due to **CANCER**

Each year,  
**1 IN EVERY 60** firefighters take time off work due to **INJURY**

## Injury

Due to the nature of the occupation, firefighters are at a high risk for injury while on the job. Work-related injury affects younger firefighters: 2/3 absent due to injury were 30-49 years old.

**Causes:** Hazardous conditions, heat, intense physical activity, motor vehicle crash, unstable structures, falling objects

**Types:** Muscle strains and sprains, back injury, arm and leg injuries, burns

## Cancer

While firefighters have the same genetic and environmental predispositions for cancer as the general population, they are at increased risk for cancer. Work-related cancer affects older firefighters: 75% absent due to cancer were 40-64 years old.

**Causes:** Exposure to carcinogens and disease, shift work

**Types:** Testicular and prostate cancer and non-Hodgkin's lymphoma.

## Mental Health

Mental health issues span all ages. Although it is under-reported, of all the firefighters on leave from work due to work-related mental health issues, approximately:

- 20% were under 30 years old
- 40% were 30-39 years old
- 40% were 40-59 years old

**Causes:** Traumatic events, death or rescue of a child, pre-existing health conditions

**Types:** Anxiety, depression, post-traumatic stress disorder (PTSD), substance use

## Injuries & Illnesses

### Respiratory Disease

100% of work-related deaths due to respiratory disease were among firefighters 65 years of age and older.

**Causes:** Exposure to chemicals, gases, and other substances

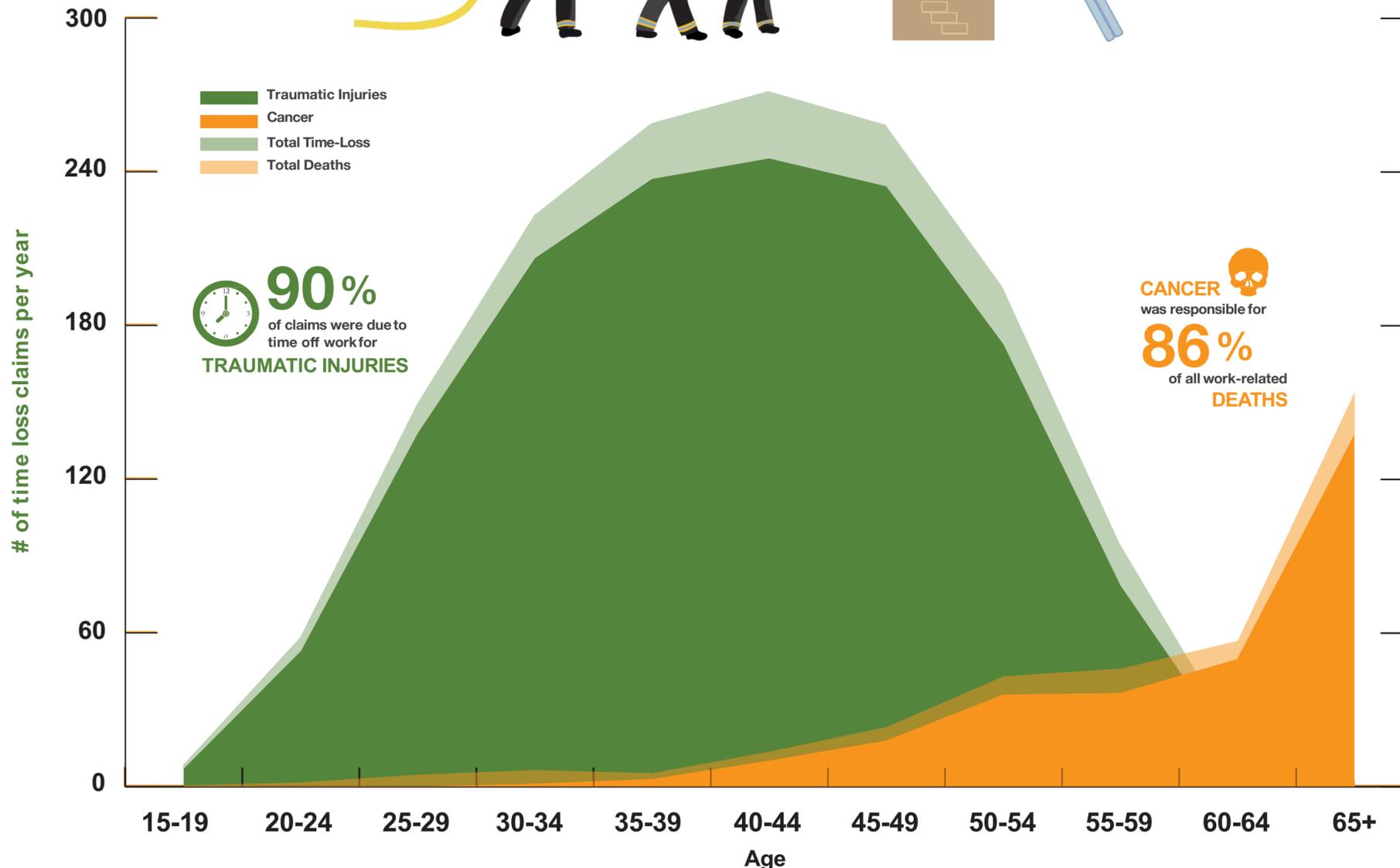
**Types:** Bronchitis, pneumonia, tuberculosis, asthma, chronic obstructive pulmonary disease (COPD).

### Cardiovascular Disease

60% of work-related deaths due to cardiovascular disease were among firefighters between 50 and 64 years of age.

**Causes:** Physical demands, emotional stress, environmental hazards

**Types:** Heart disease, heart attack, congestive heart failure, cerebrovascular disease.



**90%** of claims were due to time off work for **TRAUMATIC INJURIES**

**CANCER** was responsible for **86%** of all work-related **DEATHS**

# of death claims per year



## Policy Implications

- 1 Surveillance:** A national firefighter injury surveillance system should be established in order to accurately determine the causes of work-related firefighter injury and death, and inform prevention efforts.
- 2 Early Detection:** Encouragement of screening for illnesses and awareness of the warning signs for mental health disorders.
- 3 Health Promotion:** Opportunities for personal mental and physical health should be implemented by fire departments. This can include installation of gym equipment and healthy food options.

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