



FIRE INSTRUCTOR I

Student Presentation Lesson Plan

3-Firefighter Fatalities, Injuries, and Illness

Outline of Instruction

Objective

Upon successful completion of this lesson, the student shall be able to:

- List the main types of job-related firefighter fatalities, injuries, and illnesses. [NFPA® 1001, 5.1.1]

Instructor Directions

1. Set up non-projectable training aids
 - a. Chart pad to include:
 - i. Title Page
 - ii. Acronym
 - iii. Summary
 - iv. 1 Application scenario
 - v. 2 Evaluation questions
2. Set up projectable training aids (LCD projector & computer)
3. Present lecture utilizing this outline of instruction, non-projectable and projectable audio visual aids.
 - a. Overall time 18 min. (set up, present topic, and take down of audio visuals)
 - b. Presentation time 8-12 min. (presentation time is part of the 18 min)
4. Breakdown of projectable training aids.

Reference Stowell, F.(2013). Essentials of Fire Fighting and Fire Department Operations (6th ed.). Upper Saddle River, N.J.: Brady Pub.; ISBN# 978-013-314080-4

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Preparation

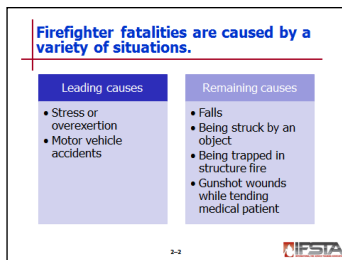
Introduction

- Instructor introduction
- Objectives
- Preparation Step

Presentation

Fatalities – 2010 NFPA® report

72 on-duty – Lowest annual figure since data collection began in 1977



Leading causes

Stress or overexertion

Heart attacks

Strokes

Motor vehicle accidents

Remaining causes

Falls

Being struck by an object

Being trapped in structure fire

Gunshot wounds while tending medical patient

Injuries – 2010 NFPA® report

Estimated slightly less than 72,000 injured

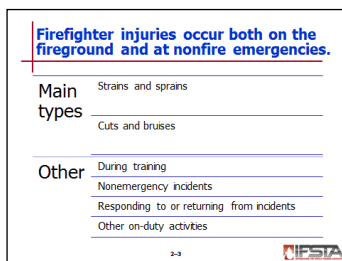
32,000 were injured on fire ground

14,200 were nonfire emergency incidents

Main types

Strains and sprains

Cuts and bruises



Other occurrences – During training, during nonemergency incidents, while responding to or returning from incidents, in other on-duty activities

Illnesses

Defined as acute or chronic

Acute – Short term, may only last a few days

Chronic – Long lasting, can be fatal

Can be hereditary, also result of lifestyle choices and exposure to toxic atmospheres or infected persons

Be aware of and protect yourself from certain chronic illnesses



Cardiovascular diseases

Leading cause of firefighter fatalities

Work-related causes

Exposure to smoke and chemicals

Heat stress from fires and ambient temperatures

Psychological stressors

Long, irregular work hours

Job-related prevention – Mitigated by policies, procedures, and equipment provided by department

Nonjob-related causes

Obesity

Tobacco use

Lack of physical fitness

Nonjob-related prevention – Mitigated by eating healthy diet, discontinuing tobacco use, exercising regularly

Respiratory diseases

Most common types

Asthma

Lung cancer

Chronic obstructive pulmonary disease
(COPD)

Can be caused by exposure to smoke, fire
gases, chemicals

Prevention – Individual responsibilities

Always follow departmental regulations
for wearing respiratory equipment

Always wear respiratory protection in
immediately dangerous to life and
health (IDLH) situations

Wear appropriate level of respiratory
protection for medical responses,
when working with paints,
thinners, cleaners, around dust or
particulates

Do not smoke or expose yourself to
secondhand smoke unnecessarily

Cancer

Firefighters at increased risk

Testicular

Non-Hodgkin's lymphoma

Prostate

Multiple myeloma – Bone cancer

Risk can be increased by exposure to
carcinogens present in fires and
apparatus exhaust fumes

Prevention measures

Follow departmental safety policies

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Wear correct level of respiratory protection

Thoroughly clean PPE when contaminated by smoke

Obesity

Avoid by exercising and following a healthy diet

Increases risk of chronic diseases

Type 2 diabetes

Coronary heart disease

Stroke

Hypertension

Some forms of cancer



Diabetes

Marked by high levels of sugar in blood – Type 1 controlled by insulin, Type 2 controlled through exercise, diet, oral medication

NFPA® 1582 changed in 2007 to allow persons under physician's care and that have control to be hired by departments

Steps toward prevention

Exercise, eat properly, annual medical exam

Be aware of symptoms and family medical history

Drug and alcohol abuse

Impairs ability to function and slows reaction times

Most departments prohibit responding to emergency operations if consumed

within specific period of time before
incident or duty shift

Prescription drugs can also impair ability to
safely operate equipment

Individual responsibility to prevent
impairment

Control use of alcohol when on-call or
prior to reporting for duty

Do not respond to call or report to
station if you have been drinking

Same rule of thumb for medications
that may impair your ability

Stress-induced hypertension

Physical and emotional stress build while
responding to emergency incidents
over time

Stress can cause

Headaches

Nausea

Weakness in legs

Stress can be mitigated

Stay in good physical condition

Have positive mental attitude

Relax when possible

Use personal stress management
program

Seek assistance from employee
assistance program (EAP) if
needed

Seek physician if not EAP in
organization

Tobacco use/dependence

Use is linked to chronic diseases – Cancer, cardiac arrest, COPD; makes other diseases last longer

Preventative actions taken by several agencies

Prohibit smoking in department facilities

Require that probationary firefighters do not smoke

Provide cessation programs for current members who do

Prevention – Do not start; if you do, take advantage of programs to stop

Exposure-related diseases

Contracted by exposure to victims during medical responses

Blood- and fluid-borne pathogens

Airborne pathogens

Viruses

Other easily transmitted diseases

Can also be caused by exposure to antibiotic resistant bacteria

Prevention

Use proper level of medical protection when treating patients – Correct protective clothing, respiratory protection

Use body substance isolation methods to treat patients

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Chart Pad:

Title Page

- Name, Department, Title of Presentation

Acronym

- **L.I.P.** (Life Safety, Incident Stabilization, Property Conservation)
instructor relates these priorities to the lecture

Summary (2-4 key points)

- Instructor reviews 2-4 key points of the lesson plan to clarify uncertainties, prevent misconceptions, increase learning and improve retention

Application (1 scenario)

- The student is given a scenario where the student will apply all of the knowledge that was given in the lecture. *This is not a question*, it is merely the explanation of the scenario.

Evaluation (2 questions)

- Instructor should ask students 2 direct questions that were presented during the lesson. *Answer to the questions must be give after asking the question.*