Firefighter Cancer Awareness & Prevention Programs

Firefighter Cancer Awareness & Prevention Programs

Designing Apparatus, Equipment, Programs and Procedures Around Firefighter Safety, Health and Wellness

PRESENTED BY:

- Frank Babinec - Fire Chief
- Steve Frey - Assistant Chief
- John Whalen – Assistant Chief
- Natasha Schaefer Solle - Research Assistant Professor
- Chris Bator - Captain Safety & Health Officer

Florida Firefighters Safety and Health Collaborative

- The Florida Firefighter Safety & Health Collaborative is a free Program to Fire Departments looking to enhance, and maintain an effective Safety Committee and Safety and Health Program.

- Meetings are set in the different regions and designed to build relationships, share ideas, SOPS, resources, best practices, research, and training with the goal to minimize risk and exposure to our firefighters.

SYLVESTER COMPREHENSIVE CANCER CENTER
UNIVERSITY OF MIAMI HEALTH SYSTEM

UHealth
UNIVERSITY OF MIAMI HEALTH SYSTEM

FFSHC Team

Mission Statement

“Our mission is to focus on Firefighter Safety & Health by providing education, training and sharing of best practices to minimize the risks and exposure to our Florida Firefighters.”

FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

Collaborative Cornerstones

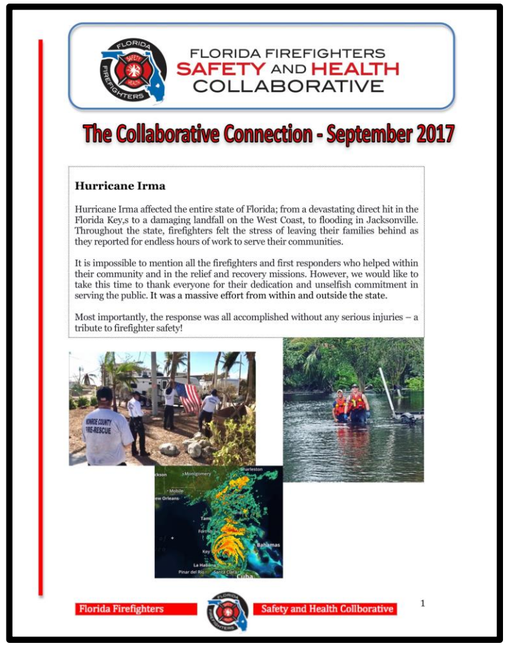
- The collaborative encompasses several topics; all aimed at improving firefighter safety.

- Firefighter Cancer Prevention
- Mental Wellness

- Health and Fitness
- Incident Scene Safety

Communication – Website/Newsletter/Social Media

- www.FloridaFirefighterSafety.org
- May 2017 first newsletter sent out to members.
- Follow us @FloridaFirefighterSafety on Facebook and Instagram.
- Follow us on Twitter @floridaFFsafety



FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

WHY ARE WE HERE?

RISK FACTORS

AGE

(lifetime risk: 42% in men; 38% in women)

LIFESTYLE

(smoking, poor diet, excessive alcohol consumption, lack of physical activity, obesity)

ENVIRONMENTAL FACTORS

(e.g. sunlight, infectious diseases).

OCCUPATIONAL - CARCINOGEN EXPOSURES

RADIATION

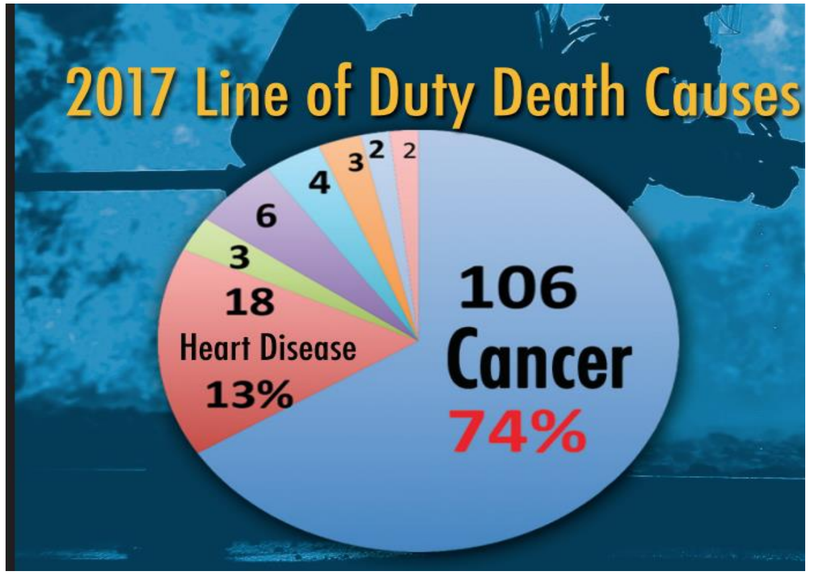
FAMILY HISTORY

Vis ne inani vocibus. An vis timeam oblique, id munere utamur assentior pro.

CHEMICALS

Firefighter Cancer Statistics

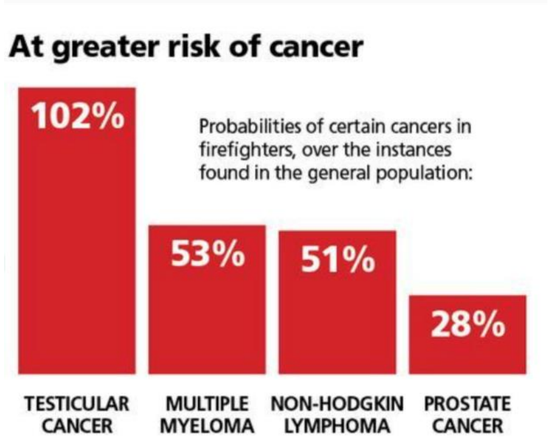
- Firefighters are at a 9% higher risk of being diagnosed and 14% dying from cancer than the general population
- According to the IAFF - 74% of firefighter line-of-duty deaths from 2002 to 2017 were cancer-related

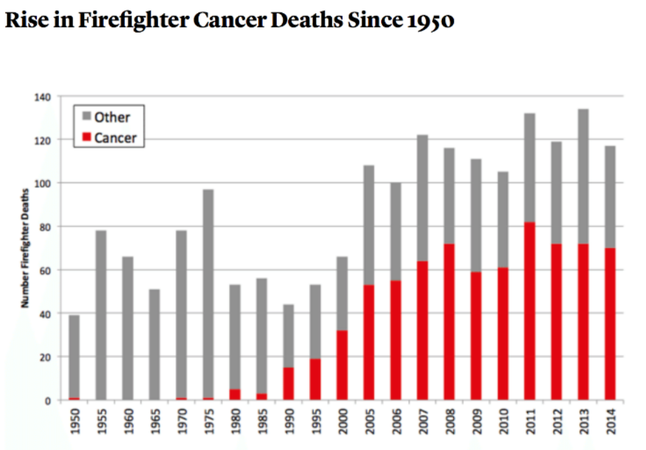


Firefighter Occupational Cancers

Known Firefighter Cancers

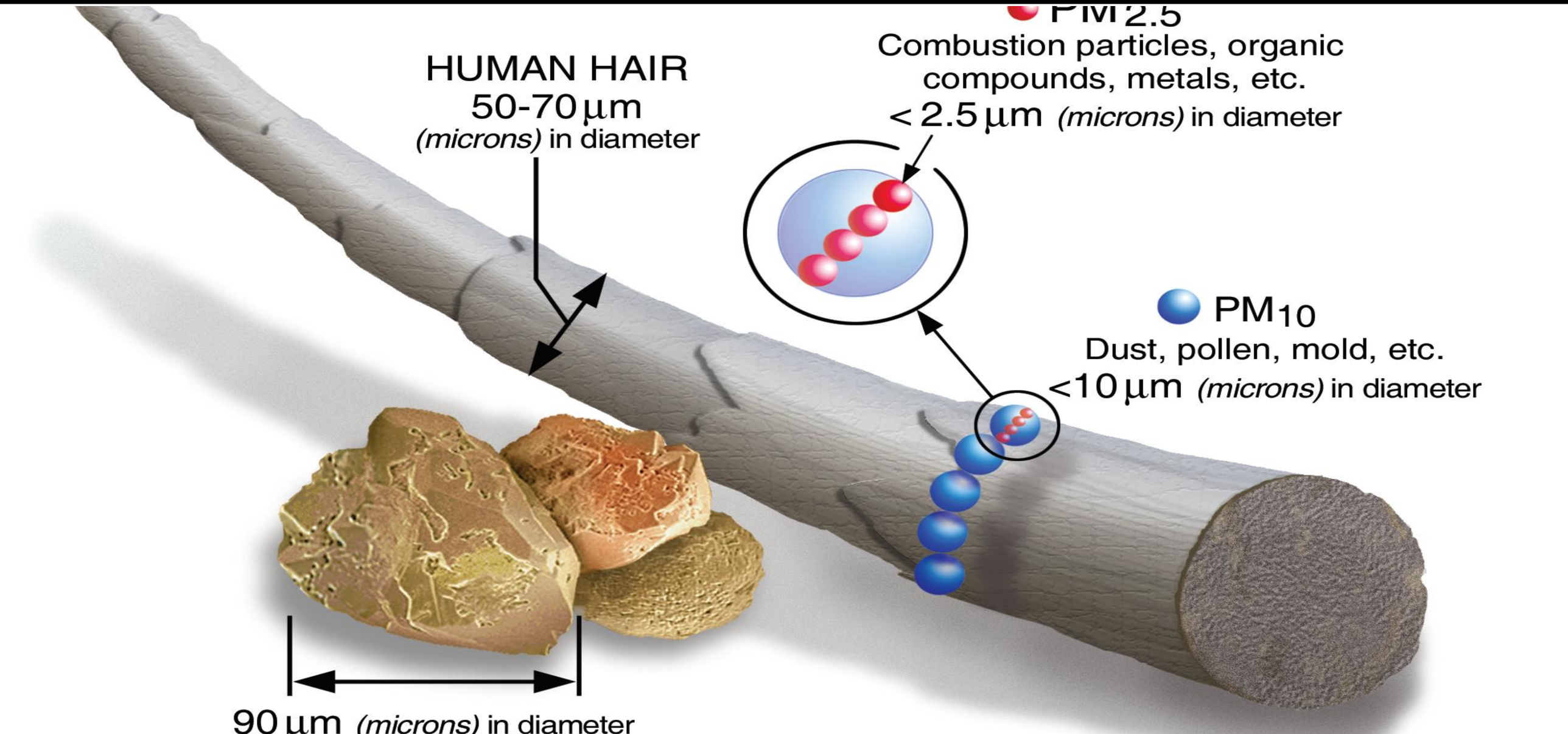
- Testicular cancer (2.02 times greater risk)
- Mesothelioma cancer (2 times greater risk)
- Multiple myeloma cancer (1.53 times greater risk)
- Non-Hodgkin's lymphoma (1.51 times greater risk
- Skin cancer (1.39 times greater risk)
- Malignant melanoma (1.31 times greater risk)
- Brain cancer (1.31 times greater risk)
- Rectum cancer (1.29 times greater risk)
- Prostate cancer (1.28 times greater risk)
- Buccal Cavity/Pharynx cancer (1.23 times greater risk)
- Stomach cancer (1.22 times greater risk)
- Colon cancer (1.21 times greater risk)
- Leukemia (1.14 times greater risk)





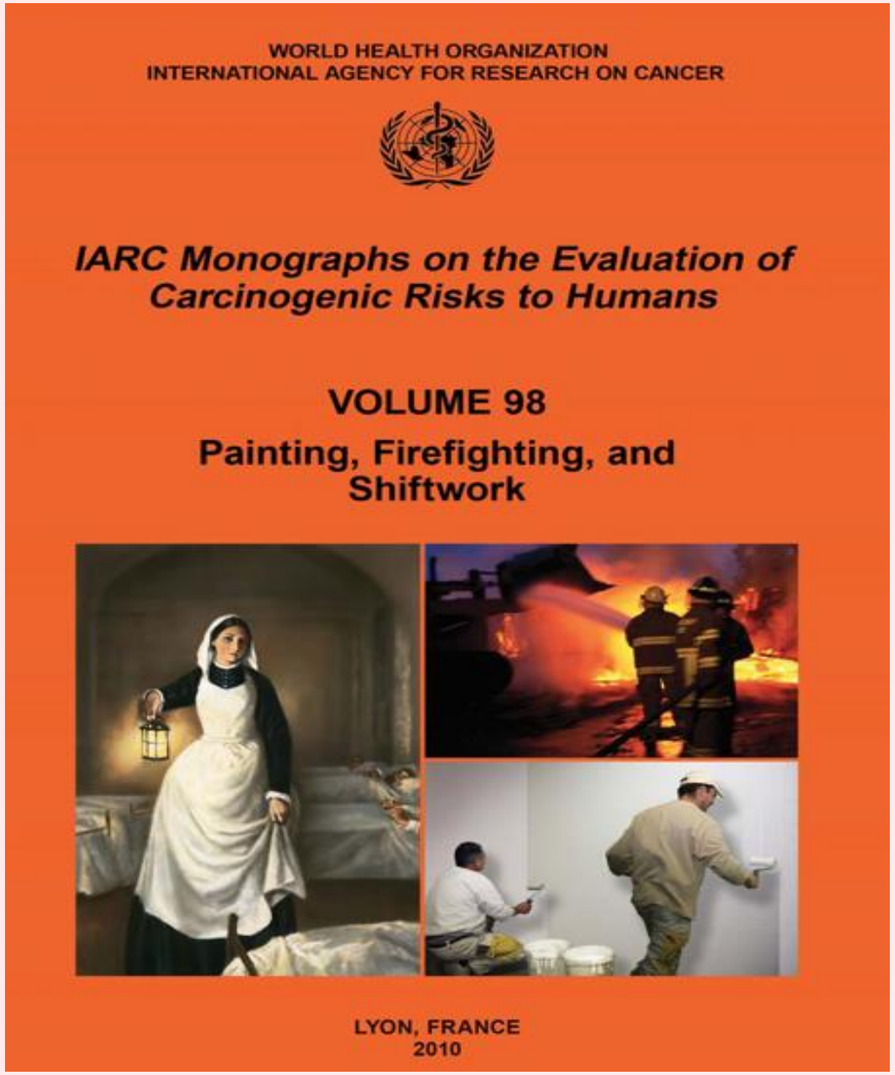
IAFF / Susan Shaw

Types of Occupational Exposures
EXPOSURES: Comparing smoke to other substances

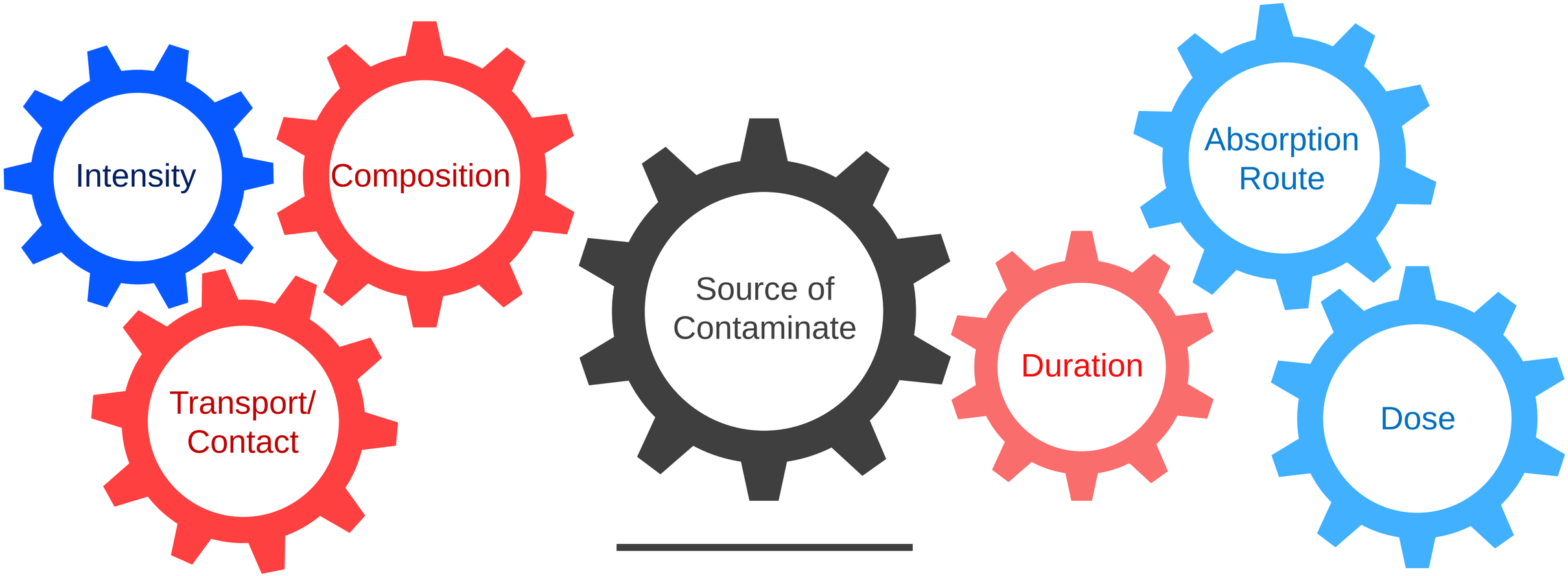


OCCUPATIONAL EXPOSURE

Large variations in exposure across different types of fires and different groups of firefighters. RR's consistently increased for:



- TESTICULAR
- PROSTATE
- NON-HODGKIN LYMPHOMA


Intensity
Composition
Transport/
Contact
Source of
Contaminate
Duration
Absorption
Route
Dose

SYNTHETIC MATERIALS

STRUCTURAL MATERIALS

MATERIALS USED IN VEHICLES, HOMES AND VARIOUS OTHER STRUCTURES ARE INCRESINGLY BECOMING SYNTHETIC.

- **POLYMERS:** FOAMS, PLASTICS, RESINS, COATINGS
- **CHEMICALS** ADDED AS FLAME RETARDANTS, STAIN RESISTANCE, PLASTICIZERS

MODERN STRUCTURES

MODERN STRUCTURES BURN FASTER THAN MID-20TH CENTURY STRUCTURES

- 5 MINUTE TO FLASHOVER VS. 30 MINUTES

TOXIC COMBUSTION BYPRODUCTS

HUNDREDS OF CHEMICALS ARE PRODUCED AS BYPRODUCTS OF COMBUSTION

Source

Chemicals of Concern

May be produced when organic materials are burned

May be produced when synthetic materials are burned

CHEMICAL CLASS	POTENTIAL HEALTH EFFECTS
Polycyclic aromatic hydrocarbons (PAHs)	**Carcinogenic** (benzo[a]pyrene)
Volatile organic compounds (VOCs)	**Carcinogenic** (benzene, 1,3-butadiene), central nervous system effects
Aldehydes	**Carcinogenic** (formaldehyde), respiratory sensitizer (formaldehyde), pulmonary edema (acrolein)
Acid gases	Respiratory irritation, pulmonary edema, chemical asphyxiation (HCN)
Phthalates	Endocrine disruption, **liver tumors in animals** (DEHP)
Polybrominated diphenyl ethers (PBDEs)	Accumulates in the body, thyroid, liver, immune system effects, neurodevelopmental effects, **liver tumors in animals** (deca-BDE)
Dioxins and furans	Accumulates in the body, similar health effects as PBDEs, **carcinogenic** (TCDD)
Organophosphate flame retardants (OPFRs)	Neurotoxicity, cytotoxicity
Diesel exhaust	**Carcinogenic**

POTENTIAL FOR CHEMICAL CONTACT

MAINTENANCE/ CLEANING

ALARM

SUIT UP

TRANSPORT TO SCENE

ESTABLISH COMMAND

SIZE UP SCENE

KNOCKDOWN

OVERHAUL

DOFF GEAR

REHAB

PACK UP EQUIPMENT

TRANSPORT BACK TO STATION

EXPOSURE INTENSITY AND DURATION

HIGH INTENSITY-SHORT DURATION EXPOSURES

- RESPIRATORY IRRITANTS, SENSITIZERS, AND ASPHYXIANTS – CAN OVERWHELM THE RESPIRATORY SYSTEM
- PARTICLES – CAN PRECIPITATE CARDIOVASCULAR EVENTS
- CARCINOGENS – MAY PRESENT GREATER RISK OF CANCER

EXTENDS BEYOND THE FIREGROUND

- POLYCYCLIC AROMATIC HYDROCARBONS, PHTHALATES, FLAME RETARDANTS, AND METALS HAVE BEEN MEASURED ON TURNOUT GEAR
- HIGHER LEVELS OF FLAME RETARDANTS HAVE BEEN MEASURED IN FIRE STATION DUST THAN OTHER OCCUPATIONAL SETTINGS

ROUTES OF ABSORPTION

INHALATION

- EXTERIOR OPERATIONS WITHOUT RESPIRATORY PROTECTION
- OVERHAUL WITHOUT RESPIRATORY PROTECTION
- OFF-GASSING CONTAMINATION ON TURNOUT GEAR

DERMAL

- PERMEATION/PENETRATION OF CONTAMINANTS
- DIRECT UPTAKE OF GASES/VAPORS
- CROSS-TRANSFER OF CONTAMINATION FROM GEAR/EQUIPMENT

INGESTION

CAN OCCUR WHEN EATING WITH CONTAMINATED HANDS

DOSE

- ELEVATED LEVELS OF BENZENE AND POLYCYCLIC AROMATIC HYDROCARBONS HAVE BEEN DETECTED IN THE BODY AFTER FIREFIGHTING. BOTH THROUGH INHALATION AND DERMAL ABSORPTION ROUTES.

- ELEVATED LEVELS OF POLYROMINATED DIPHENYL ETHERS AND ORGANOPHOSPHATE FLAME RETARDANTS HAVE BEEN FOUND IN FIREFIGHTERS.

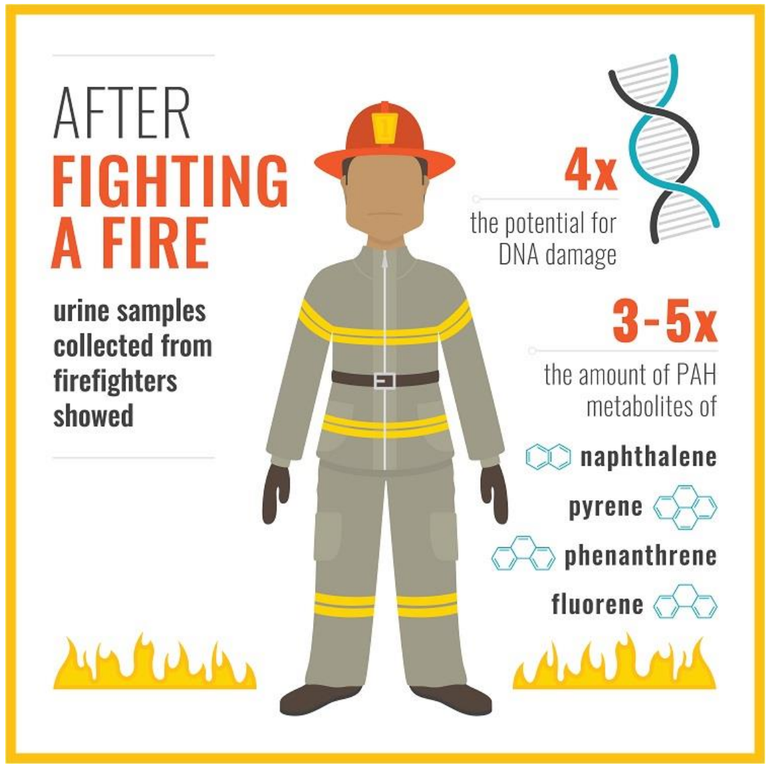
NIOSH Study

- Dr. Kenny Fent - 2 years study
- PBCFR, Boston Fire, Tucson Arizona Fire
- Select crews in Battalion 3 and 7
- Research post fire – urine and breath samples
- Study what is being absorbed, inhaled

Research Reveals

- Firefighters - Blood, urine, skin swabs all show toxins, carcinogens post fire incidents

- Major route of entry is absorption

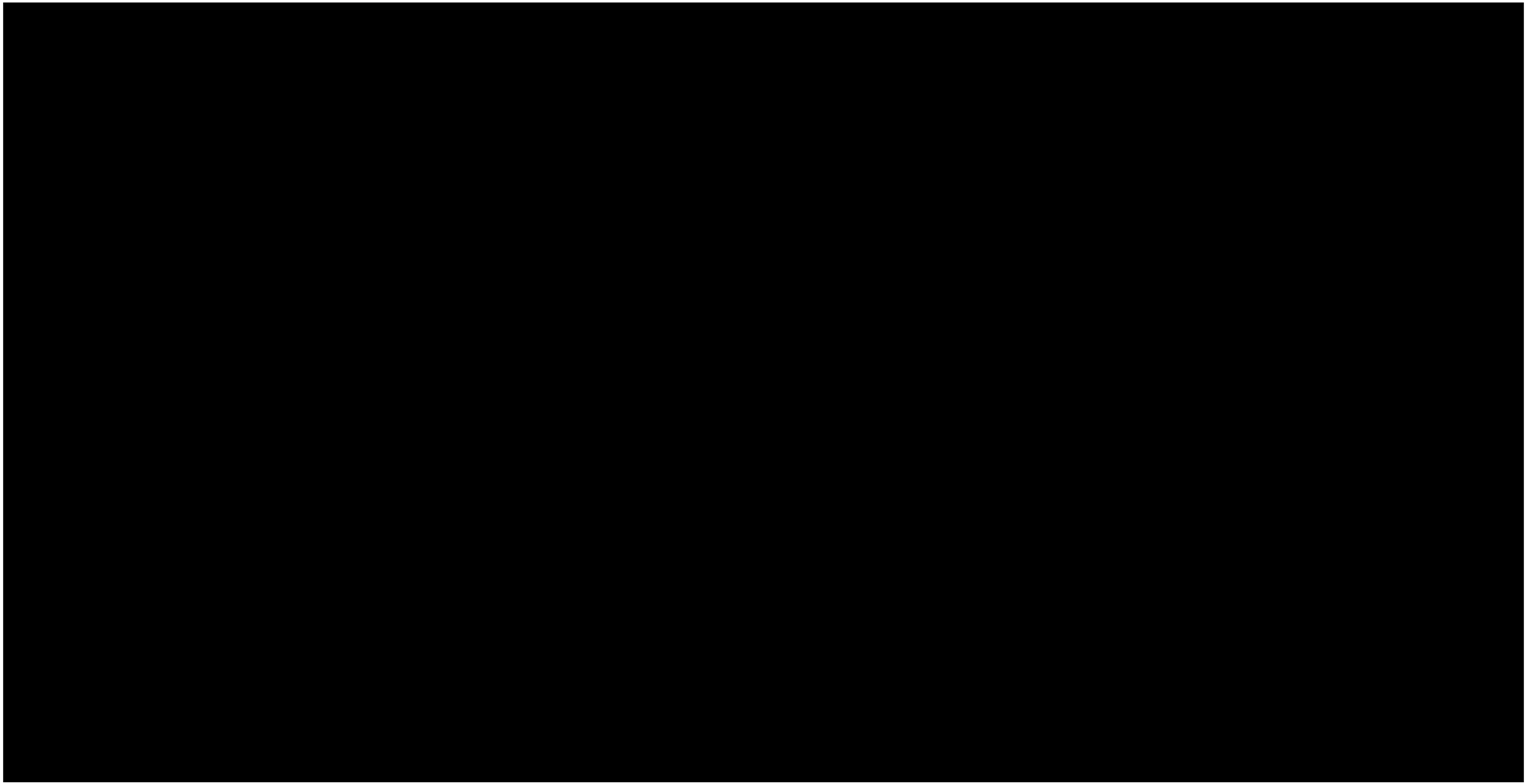


Sylvester Comprehensive Cancer Center

- Firefighter Cancer Initiative – in 3rd year of projects
  - Annual Firefighter Cancer Survey
  - Gear Off Gassing
  - Invisible Dye
  - PPE Swabs
  - Dermal Wristbands
- www.SylvesterNewBadgeOfHonor.com

SYLVESTER
COMPREHENSIVE CANCER CENTER
UNIVERSITY OF MIAMI HEALTH SYSTEM

Cross Contaimination



The INTERNATIONAL'S LINE OF DUTY DEATH RESOURCES

The IAFF considers ALL cancer losses to be a LODD
Line of Duty Death

http://www.iaff.org/

FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

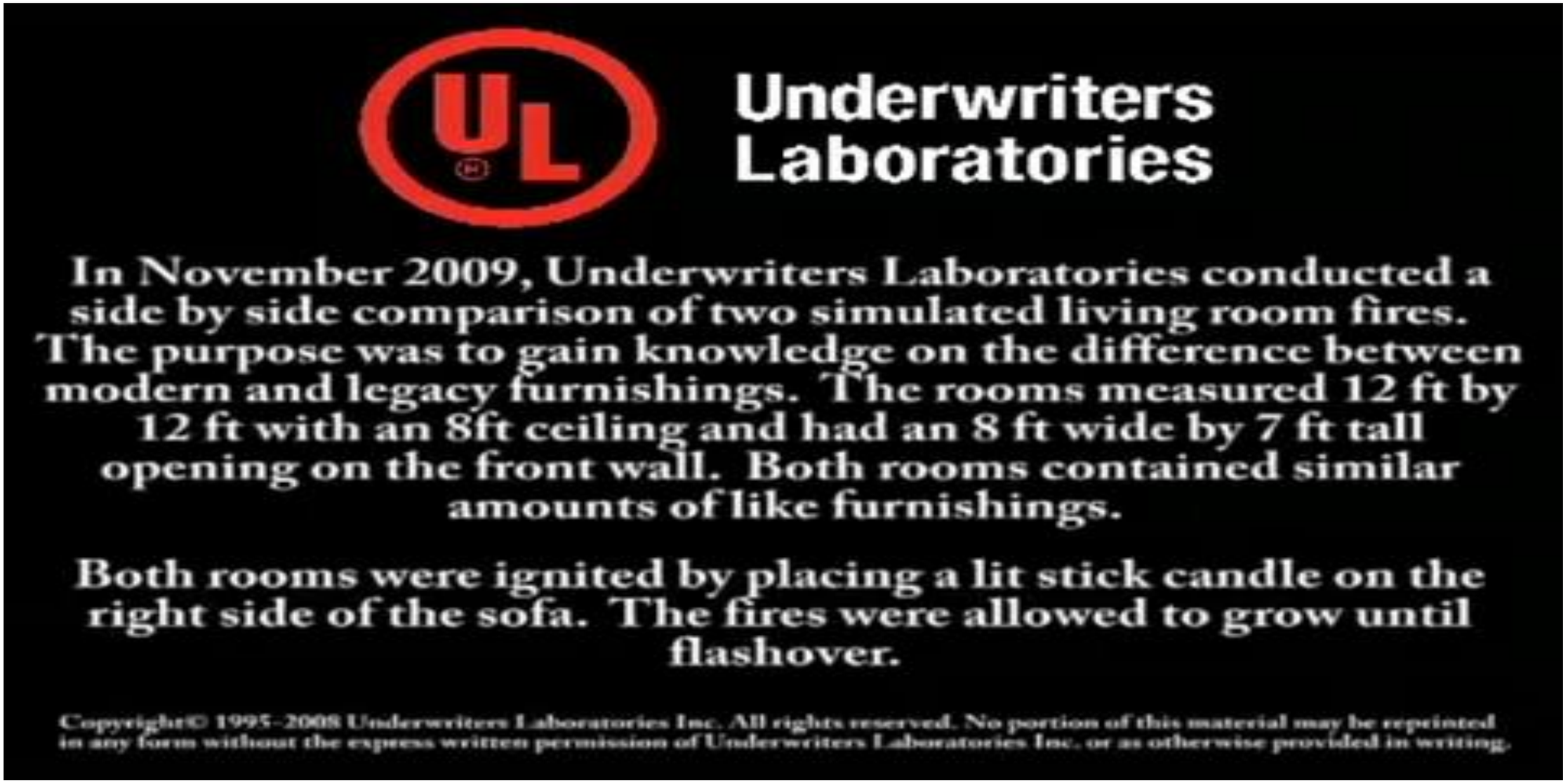
State F.A.C.E. Team

- 15 exceptional departments state wide and the FCSN
- Each chosen for their determination to make positive change in firefighter cancer prevention.
- Now includes connections: Wisconsin, Minnesota, FDNY, Orange County Ca., Idaho, Texas, British Columbia, Sweden

FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

UL Modern Verses Legacy Furnishings




CORAL SPRINGS-PARKLAND
CORAL SPRINGS
PARKLAND
FIRE
DEPARTMENT
PARAMEDICS
ISO CLASS 1
7748
43
CLEAN CAB
DESIGN

INTERIOR CAB DESIGN

SMOOTH SURFACES

USE AS MANY SMOOTH SURFACES AS POSSIBLE

ELECTRONICS

KEEP ELECTRONICS AS HIGH OFF OF THE FLOOR AS POSSIBLE

NON-POROUS MATERIALS

USE NONPOROUS OR NON ABSORBENT MATERIALS WHEREVER POSSIBLE.

AS A NOTE WE ARE WORKING WITH MANUFACTURES TO DETERMINE THE BEST SEATBELT MATERIALS.

INTERIOR CAB DESIGN CONTINUED

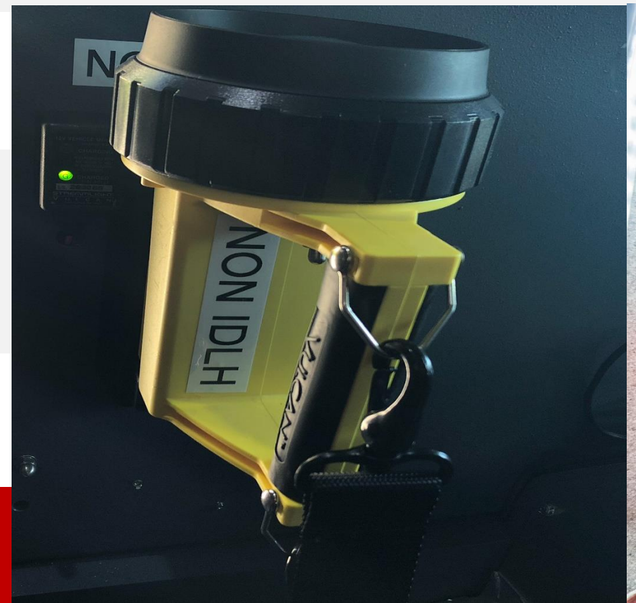
- THE CAB SHOULD BE DESIGNED TO CARRY VERY LIMITED FIREFIGHTING EQUIPMENT.

- EXAMPLE: NO SCBAS, NO IRONS, NO THERMAL IMAGING CAMERAS

CLEAN CAB DESIGN

INTERIOR CAB DESIGN CONTINUED

- ADEQUATE LIGHTING FOR NIGHTTIME OPERATIONS
- EXTRA HANDLE RAILS FOR SAFE MOUNTING AND DISMOUNTING
- TWO COLOR FLASHLIGHT SYSTEM



INTERIOR CAB DESIGN CONTINUED

- A POLICY SHOULD BE IN PLACE THAT ALLOWS FOR THE CLEANING/DECONTAMINATION OF THE CAB ONCE PER MONTH.
- MANUFACTURERS CAN UTILIZE CURRENT TECHNOLOGY TO ACCOMPLISH THIS

EXTERIOR DESIGN

COMPARTMENT SPACE FOR SCBAS
OUTSIDE THE CAB

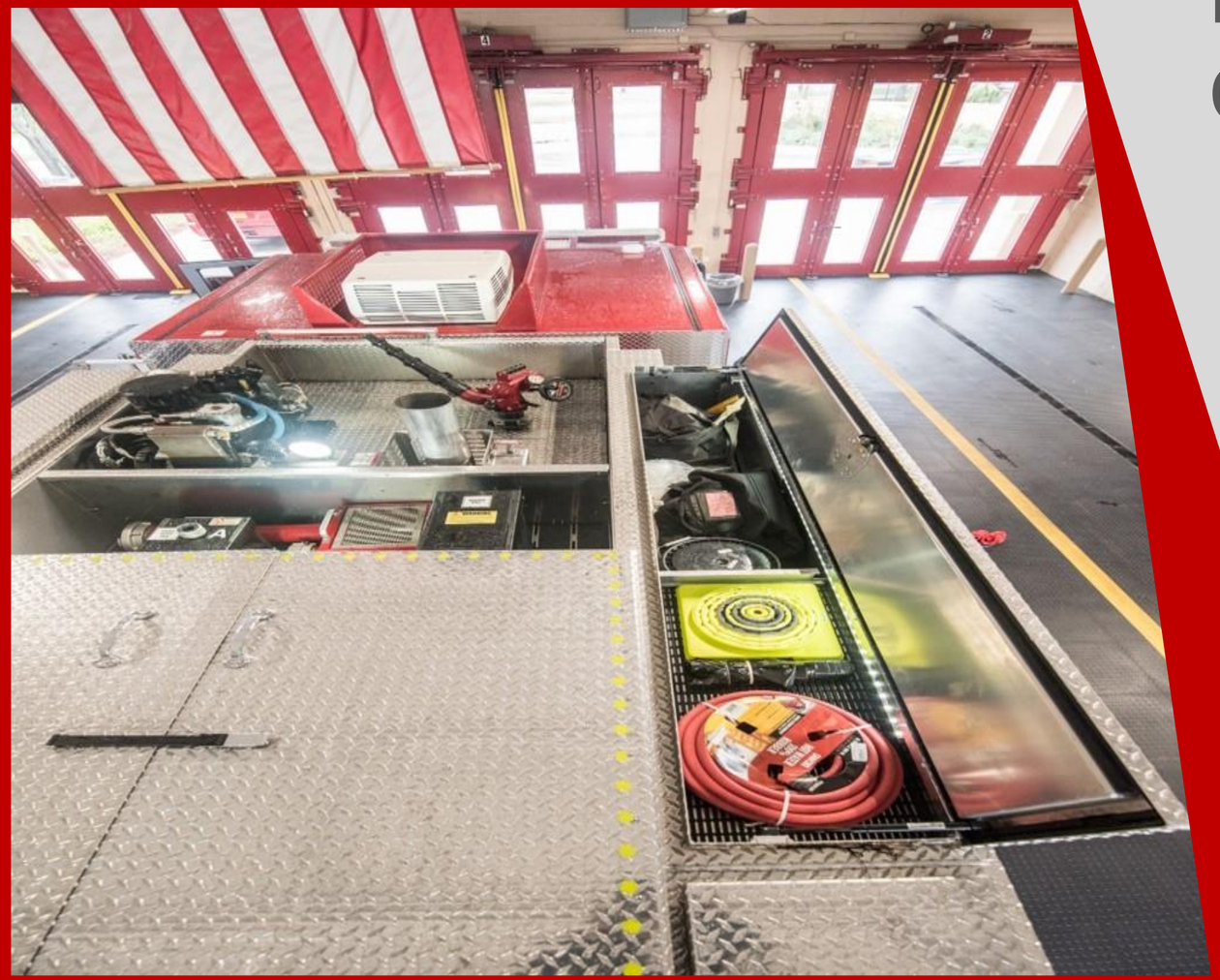
EXTERIOR DESIGN CONTINUED

EQUIPMENT THAT WILL HELP FACILITATE DECONTAMINATION IS A BOOSTER REEL OR A GARDEN HOSE OUTLET ON THE TRUCK

CLEAN CAB DESIGN

EXTERIOR DESIGN CONTINUED

COMPARTMENT SPACE FOR FIREFIGHTING TOOLS OUTSIDE THE CAB



EXTERIOR DESIGN CONTINUED

COMPARTMENT SPACE TO STORE CONTAMINATED GEAR OUTSIDE THE CAB

*There is a decontamination SOP available that shows full procedures

CLEAN CAB POLICY

- CLEAN CAB ENVIRONMENT
- ANY EQUIPMENT USED WITHIN THE IDLH ENVIRONMENT SHALL NOT ENTER THE CAB OF ANY VEHICLE. (EXCEPTION)
- INCLUDE ALL APPARATUS
- HOW TO DEAL WITH CONTAMINATED GEAR AND EQUIPMENT
- WHERE TO POSITION APPARATUS
- GO BAGS

CLEAN CAB POLICY CONTINUED

- STORAGE OF EQUIPMENT AND PPE IN STATIONS
- NO PPE IN LIVING QUARTERS.
- IDLING OF APPARATUS
- HOW TO PROPERLY CARE FOR AND CLEAN CONTAMINATED PPE AND UNIFORMS
- PERSONAL HYGIENE

DECONTAMINATION POLICY

THE POLICY SHOULD ESTABLISH A SAFE AND EFFECTIVE PRACTICE FOR REMOVING TOXIC PARTICULATES FROM EQUIPMENT AND THE FIRE PROTECTIVE ENSEMBLE AFTER EXPOSURE

ESTABLISH WORK ZONES

PROCEDURES FOR ON SCENE DECON

EQUIPMENT

PROCEDURES FOR THOROUGH CLEANING AT THE STATION.

DECONTAMINATION KIT

THE PURPOSE OF THE SOP IS TO ESTABLISH A SAFE AND EFFECTIVE PRACTICE OF REMOVING TOXIC PARTICULATES FROM EQUIPMENT AND THE FIRE PROTECTIVE ENSEMBLE AFTER THEIR EXPOSURE TO PRODUCTS OF COMBUSTION. THIS GUIDELINE SHOULD AID IN REDUCING FIREFIGHTER EXPOSURES AND SUBSEQUENTLY HAVE A SHORT AND LONG-TERM POSITIVE HEALTH IMPACT.

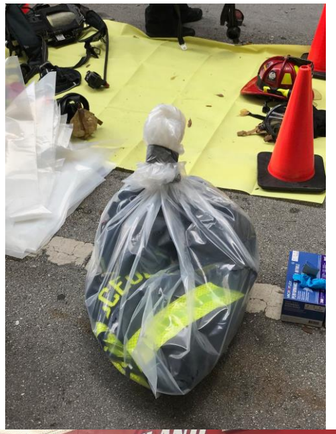
HOT ZONE, WARM ZONE AND COLD ZONE

- **2.5 TO GARDEN HOSE ADAPTER FOR SUPRESSION UNIT OUTLET**
- **5 GALLON PLASTIC BUCKET WITH HANDLE AND LID**
- **25' LAWN AND GARDEN HOSE**
- **MEDIUM BRISTLE SCRUB BRUSH**
- **HEAVY DUTY DUCT TAPE**
- **6 MILLIMETER HIGH STRENGTH PLASTIC BAGS**
- **GREEN SAFETY CONE (COLLAPSIBLE OR RIGID)**
- **LEAD REMOVING EQUIPMENT CLEANER SPRAY**
- **LEAD REMOVING NON-RINSE WIPES**
- **DAWN DISH SOAP**


CLEAN CAB
DESIGN
Swan
HOT WATER
RUBBER


CS
CLEAN CAB
DESIGN

Post Fire On Scene Decon



FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

Best Practices – On Scene Gross Decon Kits

- Florida – million dollar grant to distribution 4,500 kits to all fire suppression apparatus in the State.

Florida

State of NJ begins distributing DECON kits to their departments. Another win!

NJ.COM

Home Depot donates Decontamination Bucket Kits to Hunterdon fire chiefs

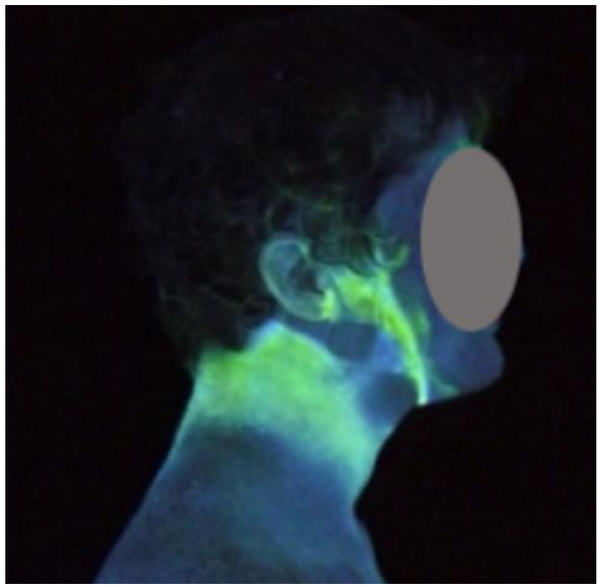
New Jersey

Washington

Best Practices – Hood / Glove Swap

WHY WIPE ?

WHY SWAP ?



RTI International

Fluorescent Aerosol Screening Test
(FAST)

Test Report

RTI Project Number: 0212534.112
Prepared by:
Jay Hill
RTI International
919-541-7443; jhill@rti.org

Prepared for:
Jeffrey O. Stull
International Personnel Protection, Inc.

January 7, 2015

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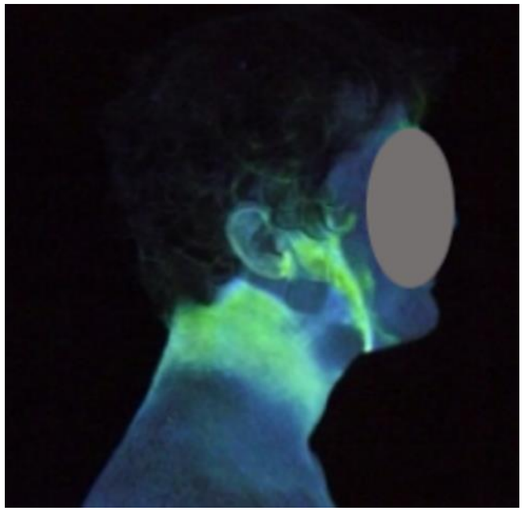
FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

Best Practices – Hood / Glove Swap

- For every 5-degree increase in skin temperature, skin absorption increases 400 percent



Skin Absorption Rates of Toxins
(Dr. Stuart Baxter, Jan. 22, 2009 – UC Seminar)

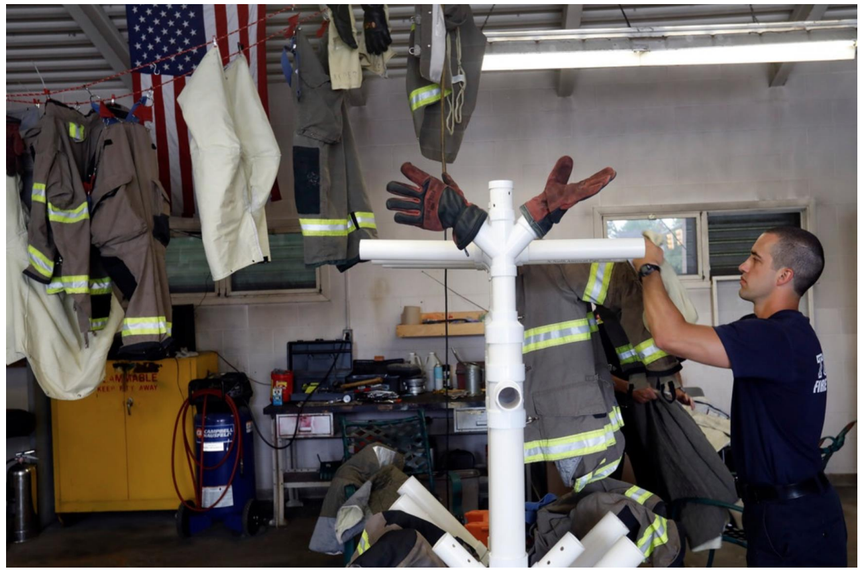
Groin Area	300%
Jaw Angle	93%
Forehead	43%
Scalp	25%
Back	12%
Forearm	7%
Palm	6%
Ankle	3%

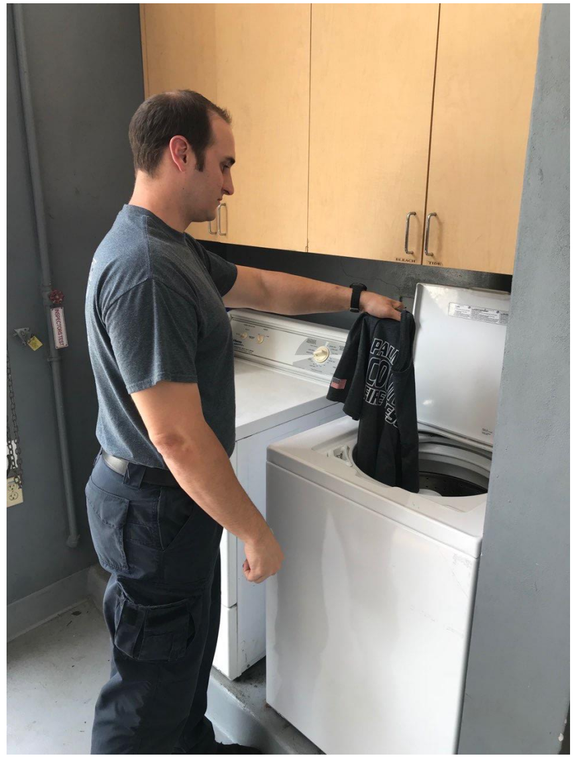
Best Practices – Gear Transport

- Bag Gear – minimum 6 mil bags
- Investigator vehicles - consider Clean/Dirty side of vehicle
- Store PPE in container

Best Practices – Clean Gear

- Extractors or advanced cleaning
- Gear Drying Stations
- Confidence Burn





EDUCATI

CLEAN CAB DESIGN

Firefighters Cancer Initiative
I Answered the Call
SYLVESTER
UNIVERSITY OF MIAMI HEALTH SYSTEM

FLORIDA FIREFIGHTERS SAFETY HEALTH

FLORIDA FIRE CHIEFS' ASSOCIATION

CORAL SPRINGS FIRE DEPARTMENT LIFE SAFETY

THE NEW BADGE OF HONOR IS CLEAN GEAR

7 STEPS FOR DECONTAMINATION:

1. Perform gross field decontamination at the scene.
2. Use cleansing wipes at the scene.
3. Swap your dirty hood for a clean one.
4. Bag and seal your gear before leaving the scene.
5. Carry out routine cleaning when you get to the station.
6. Shower within the hour.
7. Never put dirty gear in your own car, always use a protective case.

TOMORROW'S HEROES PROTECT THEMSELVES TODAY.

TOMORROW'S HEROES CLEAN GEAR TODAY

Clean Cab Policy – Moving Forward

What Pierce is doing:

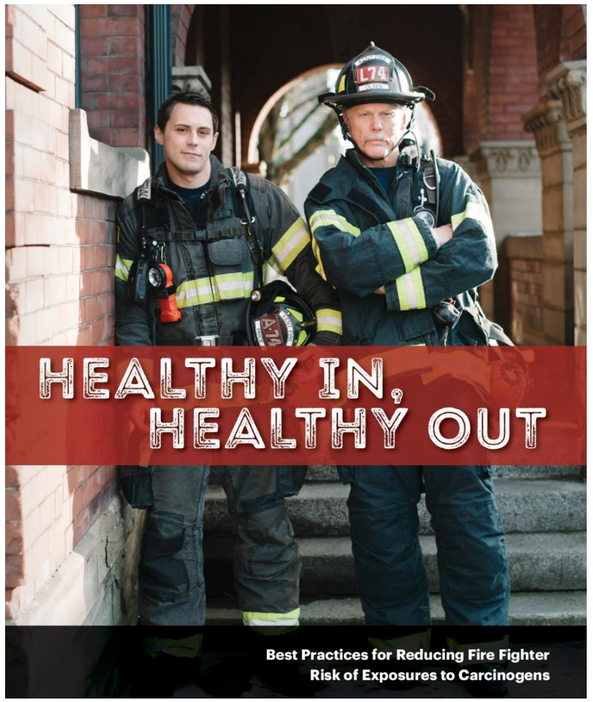
- Sustaining partnership with the Fire Cancer Support Network.
- Decon bucket provided as standard in 1,500 chassis.
- 250+ sales reps nationwide trained by members of the Florida Firefighter Safety & Health Collaborative on “Clean Cab Initiatives.”
- Cleanable apparatus seats and interior surfaces, exhaust options, decon outlets, high-impact HVAC filtration, and custom add-ons like decon showerheads reduce exposure to soot, exhaust particles, and other carcinogens.

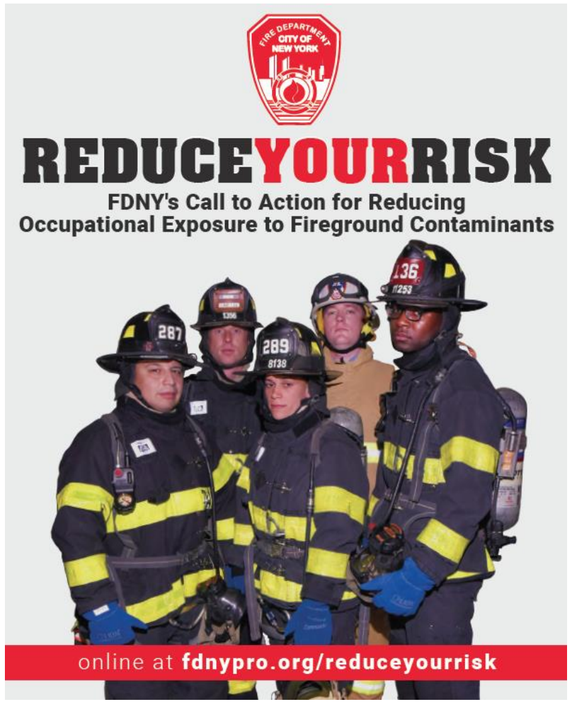
CARE™

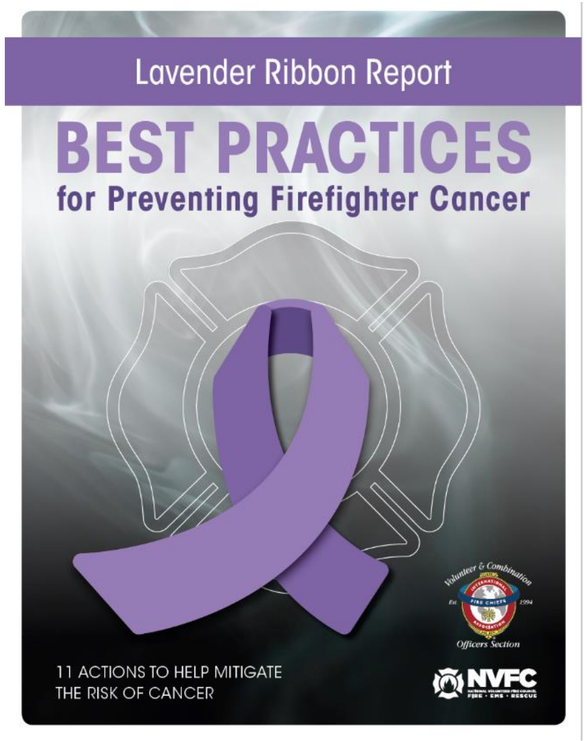
Pass it on.

Best Practices - National

- Utilize science and study results to determine best practices for firefighter safety procedures





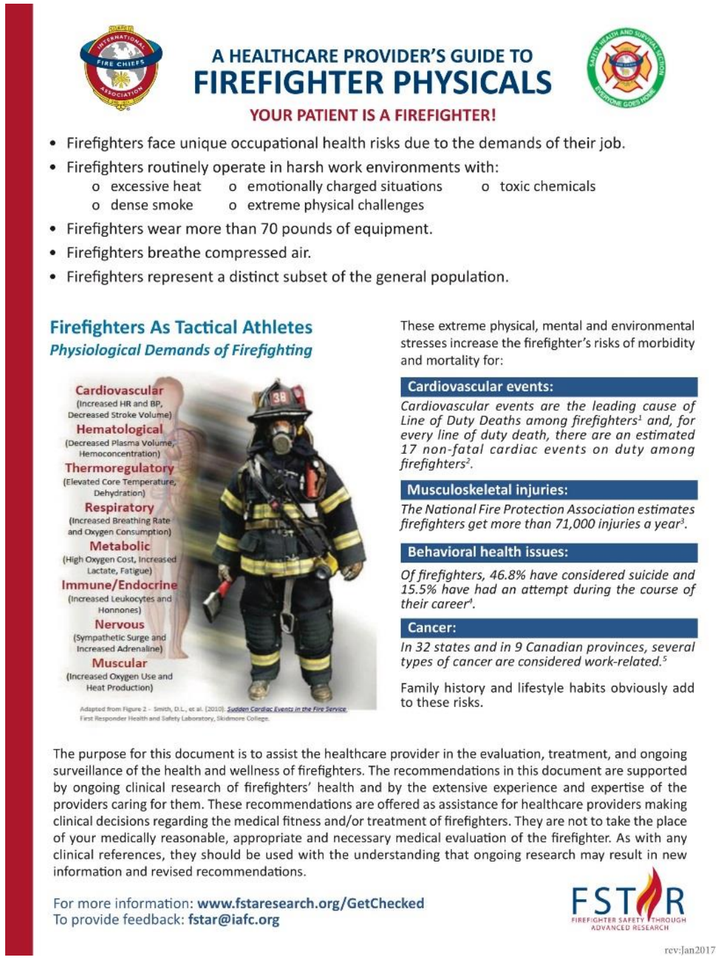


FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

Best Practices – Wellness Program

Wellness Program:

- Annual Physicals
- Early Detection (like LifeScan)
- Nutrition
- Fitness Analysis/Program



A HEALTHCARE PROVIDER'S GUIDE TO
FIREFIGHTER PHYSICALS

YOUR PATIENT IS A FIREFIGHTER!

- Firefighters face unique occupational health risks due to the demands of their job.
- Firefighters routinely operate in harsh work environments with:
  - excessive heat
  - emotionally charged situations
  - toxic chemicals
  - dense smoke
  - extreme physical challenges
- Firefighters wear more than 70 pounds of equipment.
- Firefighters breathe compressed air.
- Firefighters represent a distinct subset of the general population.

Firefighters As Tactical Athletes

Physiological Demands of Firefighting

Cardiovascular
(Increased HR and BP, Decreased Stroke Volume)
Hematological
(Decreased Plasma Volume, Hemoconcentration)
Thermoregulatory
(Elevated Core Temperature, Dehydration)
Respiratory
(Increased Breathing Rate and Oxygen Consumption)
Metabolic
(High Oxygen Cost, Increased Lactate, Fatigue)
Immune/Endocrine
(Increased Leukocytes and Honnones)
Nervous
(Sympathetic Surge and Increased Adrenaline)
Muscular
(Increased Oxygen Use and Heat Production)

Adapted from Figure 2 - Smith, D.L., et al. (2010). Sudden Cardiac Events in the Fire Service. First Responder Health and Safety Laboratory, Skidmore College.

These extreme physical, mental and environmental stresses increase the firefighter's risks of morbidity and mortality for:

Cardiovascular events:
Cardiovascular events are the leading cause of Line of Duty Deaths among firefighters[1] and, for every line of duty death, there are an estimated 17 non-fatal cardiac events on duty among firefighters[2].

Musculoskeletal injuries:
The National Fire Protection Association estimates firefighters get more than 71,000 injuries a year[3].

Behavioral health issues:
Of firefighters, 46.8% have considered suicide and 15.5% have had an attempt during the course of their career[4].

Cancer:
In 32 states and in 9 Canadian provinces, several types of cancer are considered work-related.[5]

Family history and lifestyle habits obviously add to these risks.

The purpose for this document is to assist the healthcare provider in the evaluation, treatment, and ongoing surveillance of the health and wellness of firefighters. The recommendations in this document are supported by ongoing clinical research of firefighters' health and by the extensive experience and expertise of the providers caring for them. These recommendations are offered as assistance for healthcare providers making clinical decisions regarding the medical fitness and/or treatment of firefighters. They are not to take the place of your medically reasonable, appropriate and necessary medical evaluation of the firefighter. As with any clinical references, they should be used with the understanding that ongoing research may result in new information and revised recommendations.

For more information: **www.fstaresearch.org/GetChecked**
To provide feedback: **fstar@iafc.org**

FSTAR
FIREFIGHTER SAFETY THROUGH ADVANCED RESEARCH

rev:Jan2017

Best Practices – Diesel Exhaust

- Direct Source Capturing Devices
- Positive pressure fire station
- Turn engines off when available

Best Practices – Air Monitoring
Hot and Warm Zone

- Air Monitoring – now use multi-gas device for VOCs, PAH
- Includes Firefighters/Fire Investigators

Best Practices – Respiratory Protection

- Respiratory Protection for all incidents
  - SCBA
  - Half Mask w/multi gas/vapor cartridge
    - Warm Zone, Brush Fires, etc
- Includes Fire Investigators

Palm Beach County Fire Rescue
Fire Related Respiratory Protection

ONLY to be used in addition to current SCBA use
Do NOT use in lieu of SCBA during Overhaul
Do NOT use in IDLH

- **3m Half mask respirator**
  - Rugged comfort with quick latch
  - Series 6500QL
  - Silicone face seal
  - PNs 6501QL, 6502QL, 6503QL
  - List price - $21.43
  - We issued 1 per firefighter (sized to each person)

- **3m multi-gas/vapor cartridge**
  - Protection against organic vapors, chlorine, hydrogen chlorine, sulfur dioxide, hydrogen fluoride, chlorine dioxide, hydrogen sulfide, ammonia, methylamine, formaldehyde, and P100 particulate filtering
  - PN 60926
  - List price - $13.53/each
  - We issued 2 packages (4 cartridges) per seat on apparatuses
  - **Cartridges MUST remain sealed** until needed, one-time use.

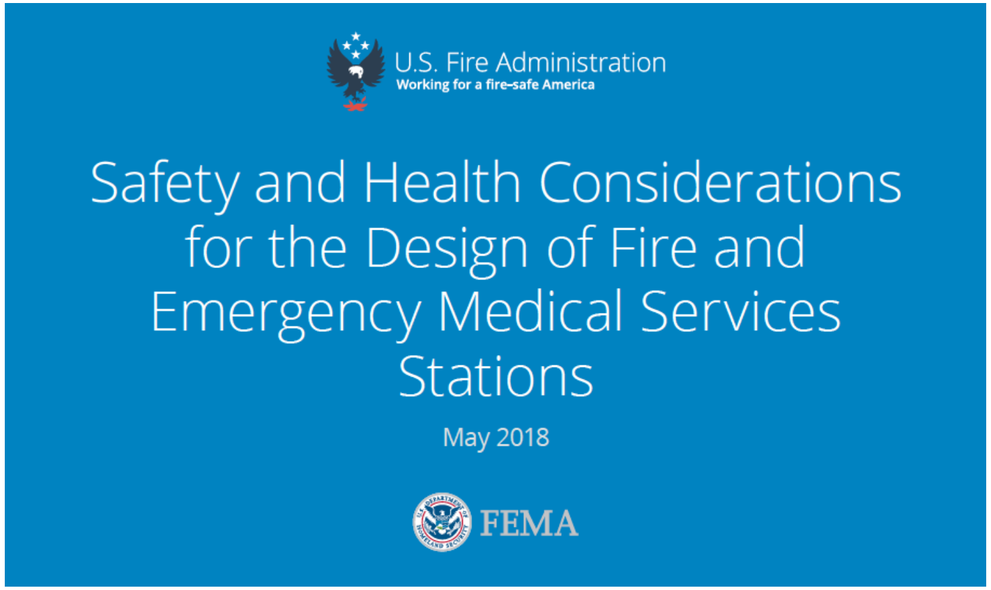
- **Draeger X-am 5000 atmospheric monitor**
  - Equipped with sensors
    - CH4 (lel) (CAT EX, PN 6812950)
    - O2 (XXS O2/CO-LC Dual, PN 6813275)
    - CO
    - EO (Organic Vapors) (XXS OV, PN 6811530)
    - HCN (XXS HCN, PN 6810887)
  - NiMH rechargeable battery
  - PN 8320000
  - Contact Draeger or distributor for pricing (approx. $2,250 list)
  - We issued 1 per ISO (approx. 1 per every 5 fire stations)

- **Draeger PAC 7000 OV gas monitor**
  - 0-200 PPM 0.5 Resolution
  - PN 8321006
  - List price - $784.00
  - *Considering buying one for each apparatus*

FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

Best Practices – Fire Station Design

- Hot / Transition / Cold zone design
- Change from gear in open bay to designated gear storage rooms



www.SylvesterNewBadgeOfHonor.com

SYLVESTER COMPREHENSIVE CANCER CENTER
UNIVERSITY OF MIAMI HEALTH SYSTEM

Firefighters Cancer Initiative
I Answered the Call
SYLVESTER

UNIVERSITY OF MIAMI
CENTER for COMMUNICATION, CULTURE, and CHANGE

FACE TEAM FLORIDA FIREFIGHTERS
SAFETY HEALTH
TOGETHER WE CAN FACE CANCER

FIREFIGHTER CANCER SUPPORT NETWORK

FLORIDA FIREFIGHTERS SAFETY AND HEALTH COLLABORATIVE

FLORIDA SAFETY HEALTH FIREFIGHTERS

Best Practices – FF Support

- Firefighter Cancer Support Network
- Training
- Resources
- Mentorship
- https://firefightercancersupport.org

THANK YOU!

CLEAN CAB DESIGN