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# FIREFIGHTER CANCER AWARENESS STUDY

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## We Still Have Work to Do

Through the work of many in our industry, we've come to understand fire ground dangers extend beyond the heat and flame as evidenced by the increased cancer rates in the fire service. LION and its partners are committed to finding ways to reduce the risks associated with exposure to carcinogens.

LION has commissioned Hanover Research to conduct a survey of

our nation's firefighters to assess awareness and current preventive practices dealing with this issue.

Key findings from this 2018 Firefighter Cancer Awareness Study include the following:

- Firefighter concerns and beliefs
- Fire department procedures
- Compliance
- Training

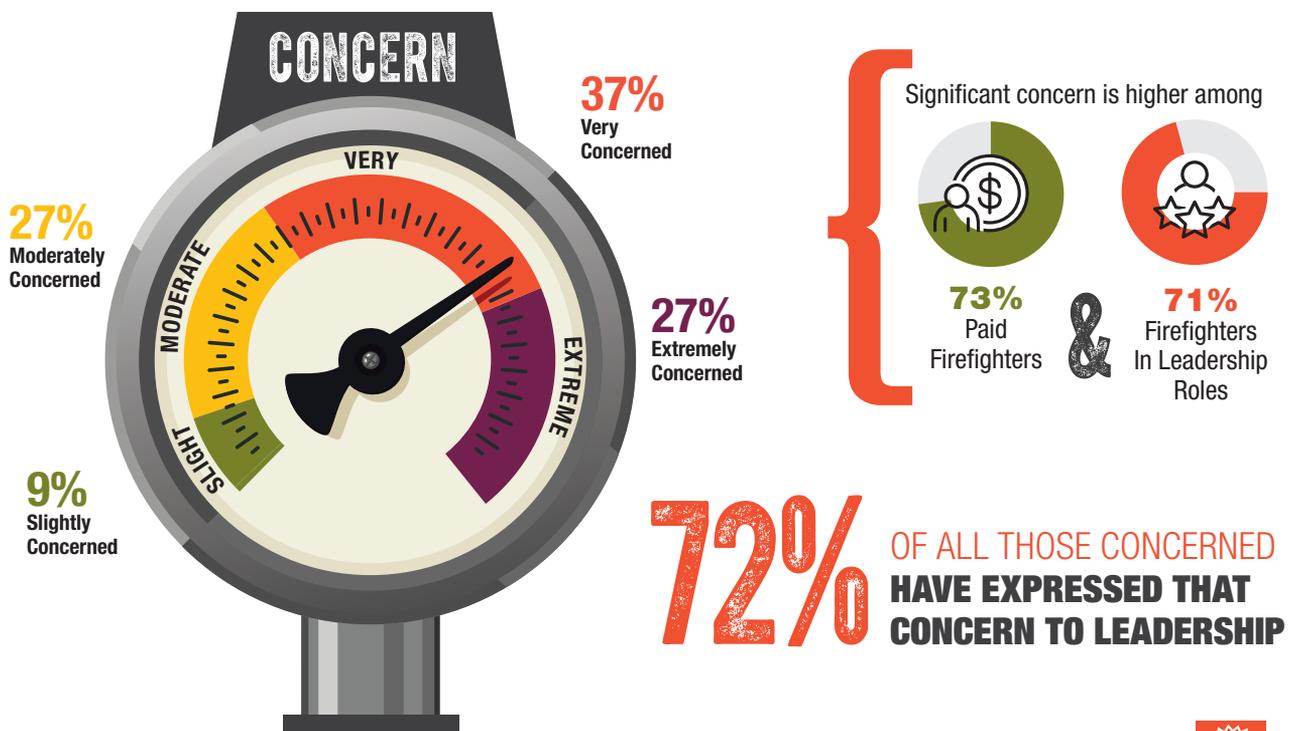
- NFPA 1851
- Future goals
- Supporting organizations

To learn more about LION's commitment to firefighter safety, visit [www.lionprotects.com](http://www.lionprotects.com) or [www.notinourhouse.com](http://www.notinourhouse.com).



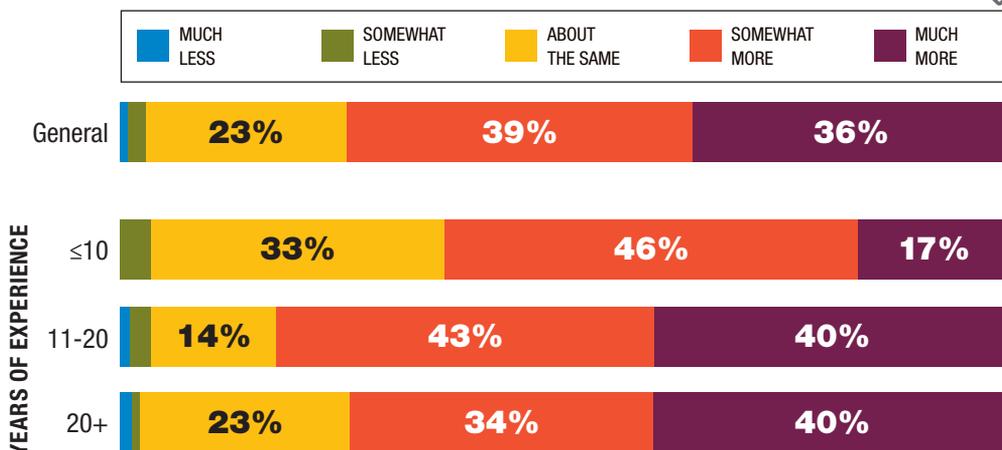
## FIREFIGHTER CONCERN

### HOW CONCERNED ARE YOU ABOUT CANCER RISKS ASSOCIATED WITH WORKING IN THE FIRE SERVICE?



# HOW DOES YOUR CURRENT CONCERN ABOUT CANCER RISKS ASSOCIATED WITH WORKING IN THE FIRE SERVICE COMPARE TO 5 YEARS AGO?

CURRENT CONCERN OF CANCER RISKS VS. 5 YEARS AGO



**UP CLOSE**

Increased concern is more pronounced among experienced firefighters.

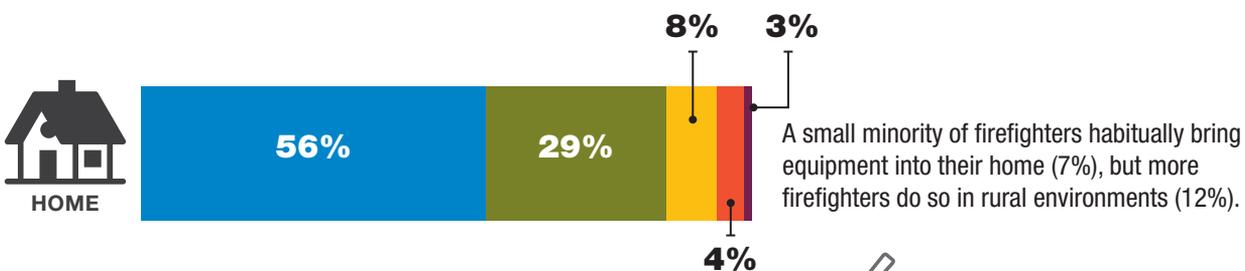
**83%**

**63%**

< 10      11-20

YEARS OF EXPERIENCE

## FREQUENCY OF BRINGING EQUIPMENT INTO PERSONAL SPACE



**UP CLOSE**

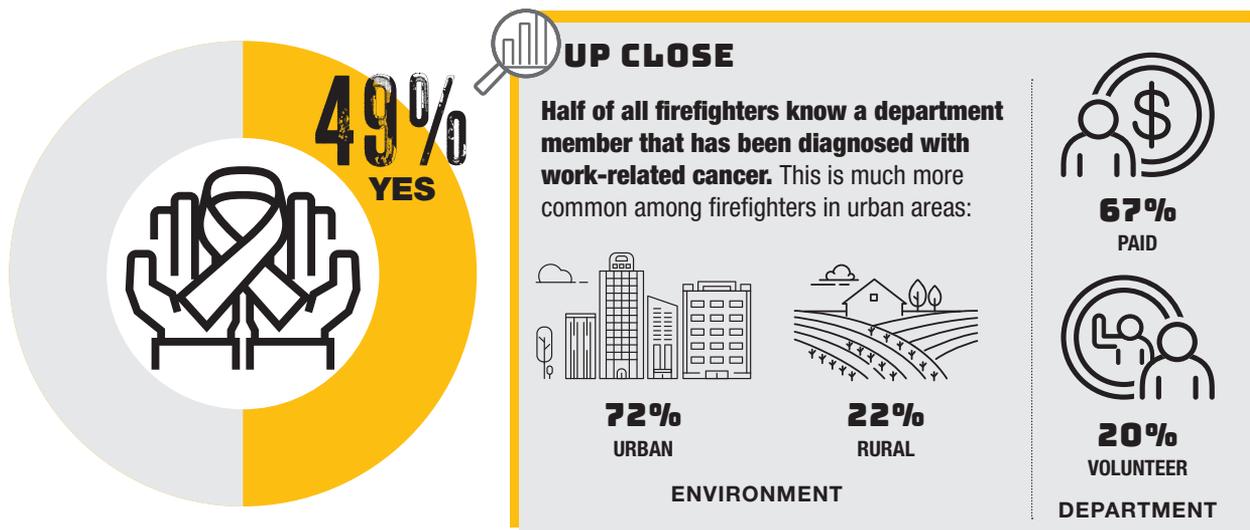
Of the 25% who carry equipment in their personal vehicle

Environment	Department
29% RURAL	29% VOLUNTEER
20% URBAN	20% PAID

**DID YOU KNOW**

Paid firefighters engage less in potentially dangerous behavior: **20%** store equipment in their personal vehicle and **3%** in their home.

# HAS A MEMBER OF YOUR DEPARTMENT EVER BEEN DIAGNOSED WITH CANCER THAT WAS DIRECTLY RELATED TO WORKING IN FIRE SERVICE?



# HAVE YOU EVER BEEN DIAGNOSED WITH CANCER?





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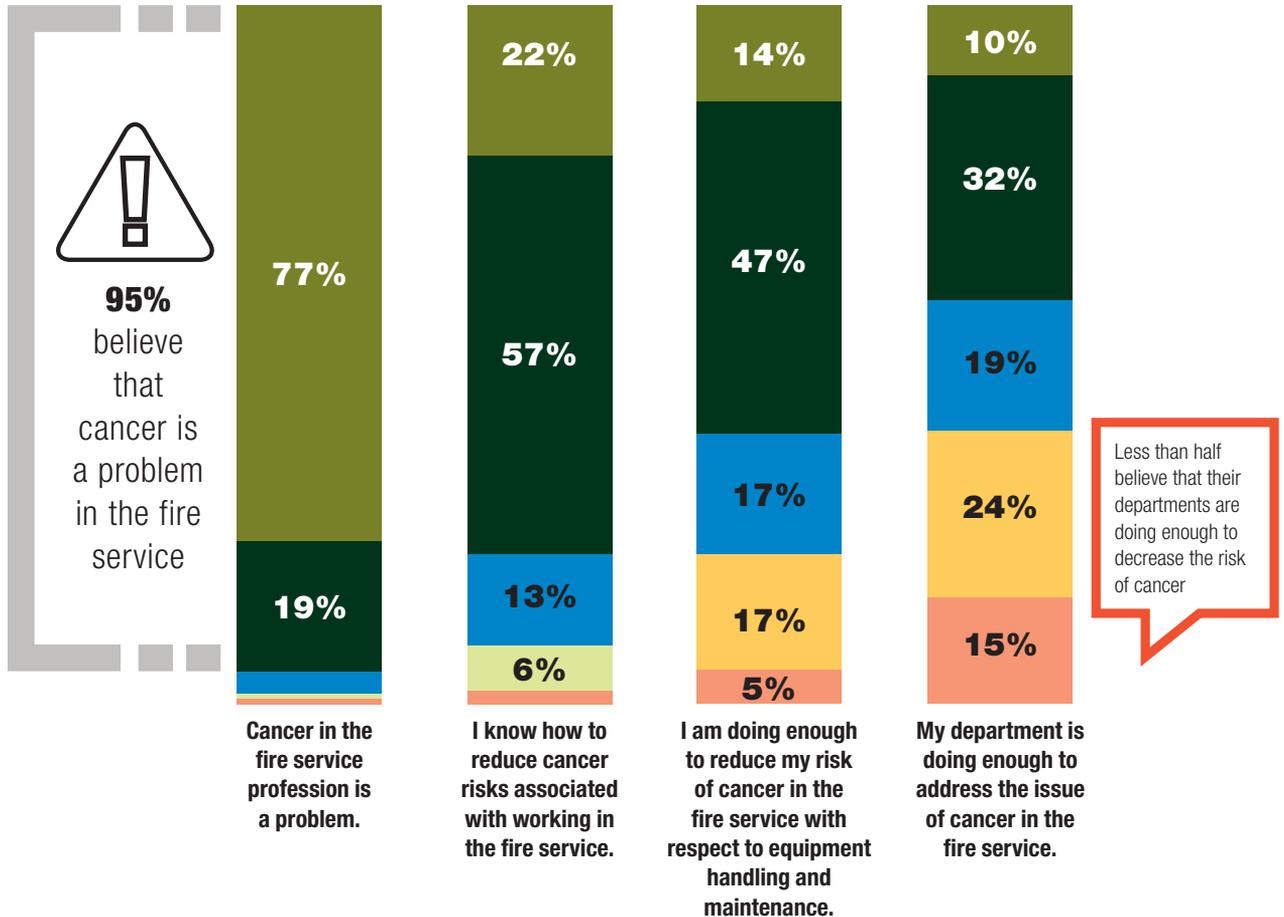
**LION CONTAMINANT  
CONTROL NETWORK**



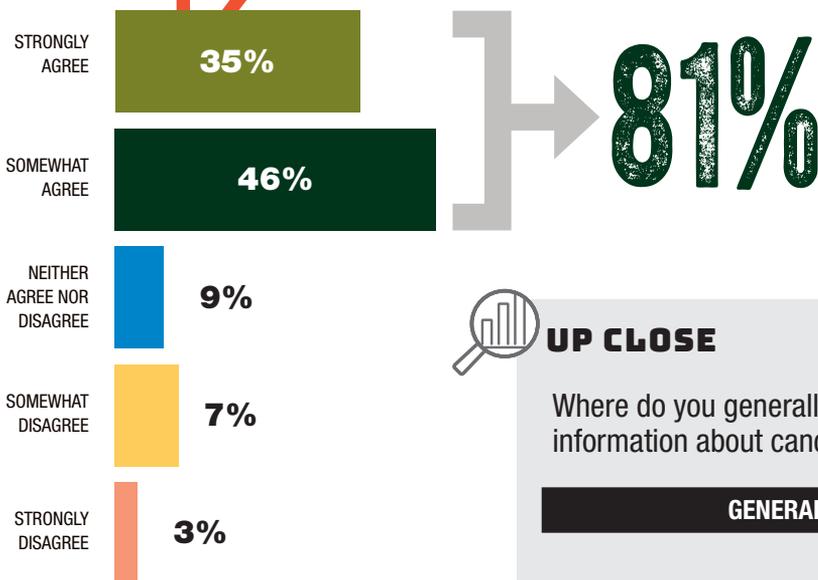
# FIREFIGHTER AWARENESS

## CANCER IS WIDELY RECOGNIZED AS A PROBLEM IN THE FIRE SERVICE

■ STRONGLY AGREE   
 ■ SOMEWHAT AGREE   
 ■ NEITHER AGREE NOR DISAGREE   
 ■ SOMEWHAT DISAGREE   
 ■ STRONGLY DISAGREE



**I AM INFORMED ABOUT CANCER RISKS ASSOCIATED WITH WORKING IN THE FIRE SERVICE.**



MOST FIREFIGHTERS BELIEVE THEY ARE INFORMED ABOUT THE RISK OF CANCER ASSOCIATED WITH THE FIRE SERVICE PROFESSION.



**UP CLOSE**

Where do you generally obtain information about cancer risks?

	GENERAL	YEARS OF EXPERIENCE		
		≤10	11-20	20+
Fire-service publications	83%	72%	81%	88%
Training in my department	67%	73%	63%	66%
Other firefighters	61%	77%	66%	52%
NFPA	53%	51%	51%	56%
Professional organizations (e.g., IAFS, IAFD)	53%	46%	53%	55%
Social media	45%	55%	56%	35%
Fire service trade shows	34%	21%	33%	39%
Local union	32%	31%	37%	29%
Smartphone apps	19%	22%	20%	17%
Sales reps	12%	14%	11%	12%
Television	4%	6%	5%	3%
Local newspaper	3%	5%	4%	2%
Radio	2%	4%	1%	1%

**DID YOU KNOW**



Fire service publications (**83%**), department training (**67%**) and word of mouth from other firefighters (**61%**) are the most common ways that firefighters obtain information about cancer risks.



**FIREFIGHTERS OVERWHELMINGLY RECOGNIZE CROSS-CONTAMINATION AS A PROBLEM**

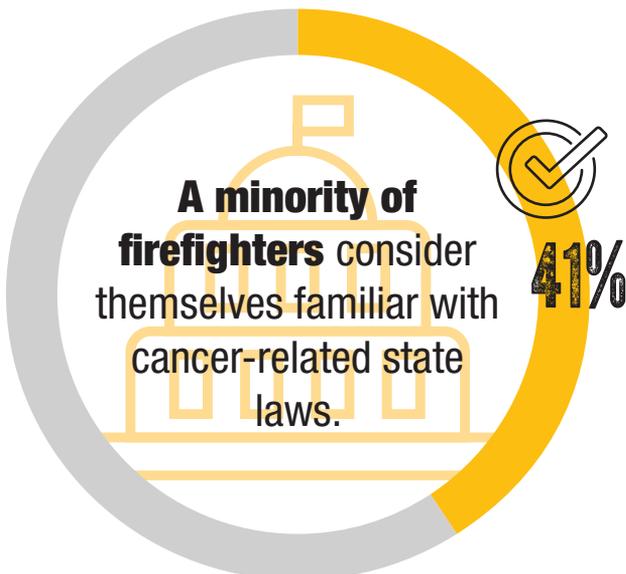
**91%** BELIEVE THAT **CROSS-CONTAMINATION IS A PROBLEM**



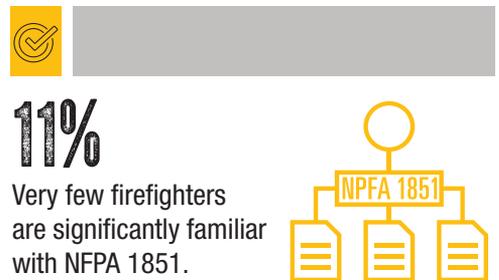
**UP CLOSE** The vast majority believe these are examples of cross-contamination.



**FIREFIGHTERS ARE NOT WELL-VERSED IN SAFETY REGULATIONS DESIGNED TO PREVENT WORK-RELATED CANCER**

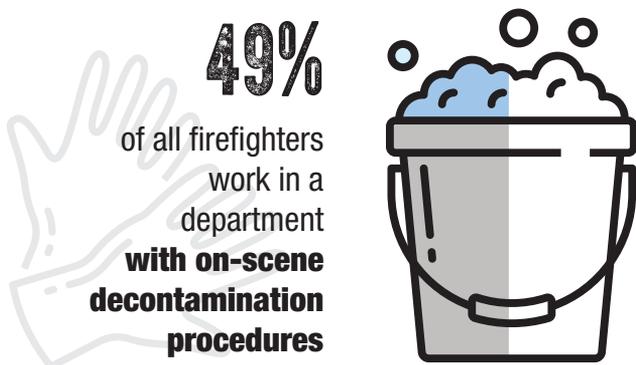


**HOW FAMILIAR ARE YOU WITH NFPA 1851?**



# FIRE DEPARTMENT PROCEDURES

## DOES YOUR DEPARTMENT HAVE ON-SCENE DECONTAMINATION PROCEDURES IN PLACE?



**DID YOU KNOW**

Less than half of fire departments implement procedures to reduce the risk of cross-contamination.

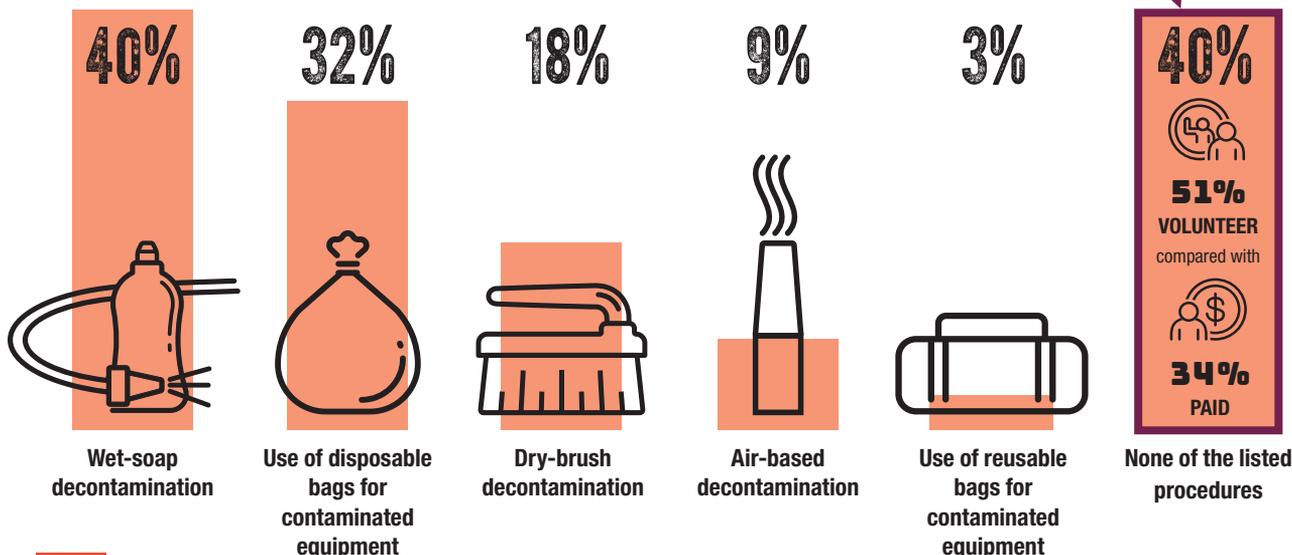
**UP CLOSE**

On-scene decontamination procedures are much more common in paid departments in urban environments:

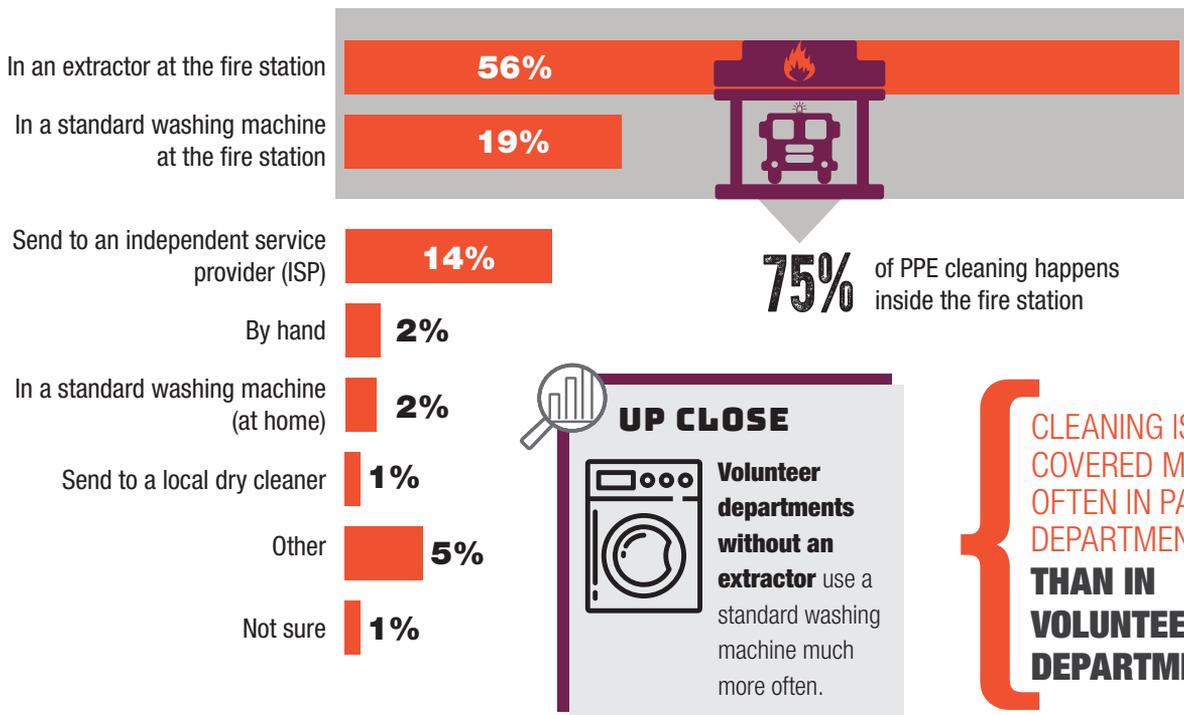
<b>54%</b> URBAN	<b>44%</b> RURAL
<b>ENVIRONMENT</b>	
<b>55%</b> PAID	<b>37%</b> VOLUNTEER
<b>DEPARTMENT</b>	

## WHICH PROCEDURES HAVE BEEN IMPLEMENTED AT YOUR DEPARTMENT TO REDUCE THE CONTAMINATION OF YOUR PPE?

Nearly half of firefighters work in departments that **have not implemented any** of the listed procedures.

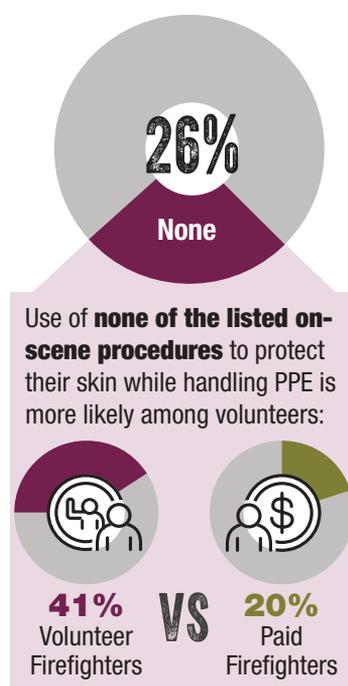
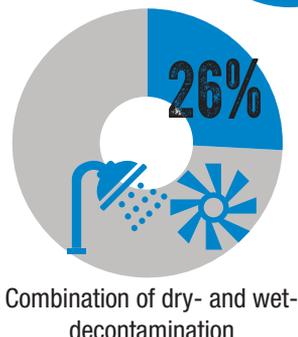
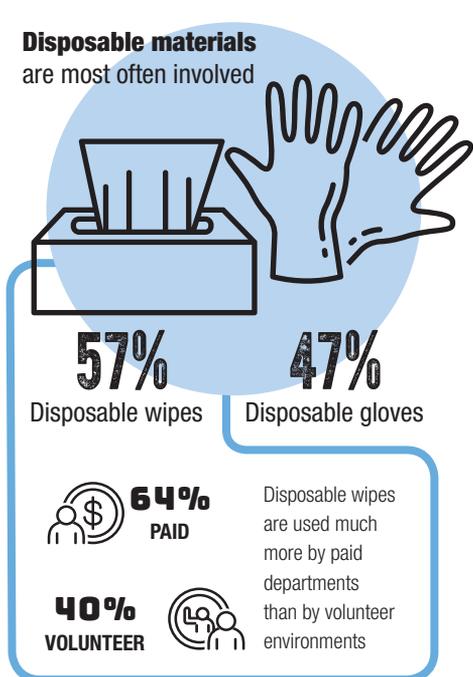


## HOW DOES YOUR DEPARTMENT USUALLY CLEAN CONTAMINATED PPE?



## ON-SCENE PROCEDURES IMPLEMENTED TO REDUCE CONTAMINATION OF YOUR SKIN WHEN DOFFING OR HANDLING YOUR PPE

Disposable materials are most often involved





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**LION CONTAMINANT  
CONTROL NETWORK**

**WHICH PPE  
ITEMS ARE  
COVERED UNDER  
YOUR ON-SCENE  
DECONTAMINATION  
POLICIES?**

HELMET

**45%**

SELF-CONTAINED  
BREATHING  
APPARATUS

**52%**

HOOD

**54%**

TURNOUT

**61%**

NOT SURE

**31%**

GLOVES

**52%**

BOOTS

**45%**

IN GENERAL, ITEMS  
ARE MORE LIKELY TO  
BE COVERED IN PAID  
DEPARTMENTS  
THAN IN VOLUNTEER  
DEPARTMENTS.

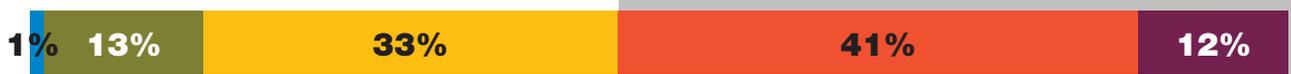


# FIRE DEPARTMENT COMPLIANCE

## HOW OFTEN ARE THE ON-SCENE DECONTAMINATION PROCEDURES FOLLOWED BY YOUR DEPARTMENT?

**53%**

of those departments **with on-scene decontamination procedures** in place follow those procedures regularly.



**Q. Do you think your department's on-scene decontamination procedures reduce exposure to cancer-causing substances?**

**A.** Most firefighters consider their department's procedures at least **"slightly" effective (98%)**, but very few consider them **"very" effective (22%)**.



### EFFECTIVENESS

COMPLIANCE WITH ON-SCENE DECONTAMINATION PROCEDURES IS GENERALLY VIEWED AS INEFFECTIVE

**Volunteer firefighters** are much **more likely (78%)** than **paid firefighters (49%)** to report a problem with lack of enforcement.

**TOP 4 REASONS DECONTAMINATION PROCEDURES ARE NOT FOLLOWED**

## CLEANING OF ALL FIREFIGHTING EQUIPMENT IS PERFORMED REGULARLY FOR MOST FIREFIGHTERS.

**70% SCBA**

**60% PPE**

**59% TOOLS**

**57% STATION**

PPE, tools, and the fire station are cleaned more regularly in paid fire departments than in volunteer fire departments.

**58%**  
No enforcement of policies/procedures

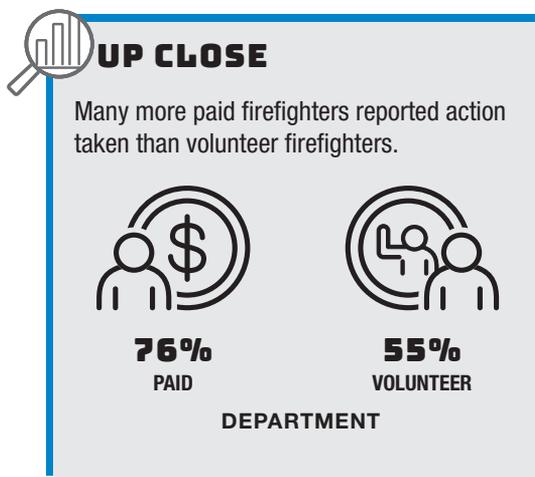
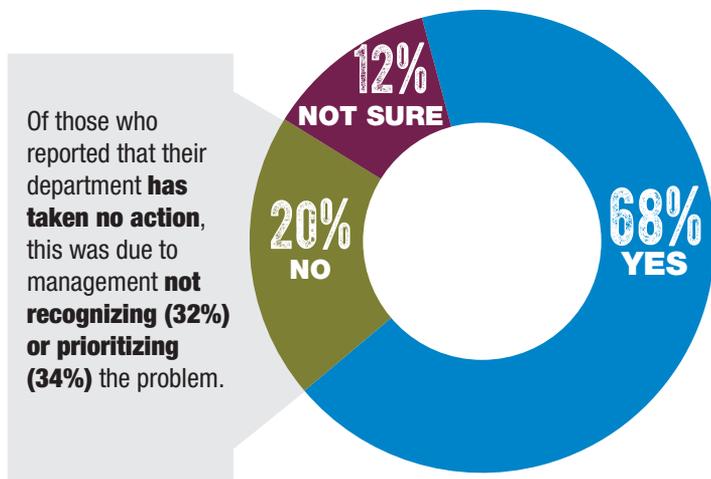
**46%**  
Takes too much **time**

**40%**  
Requires a **second set** of equipment

**22%**  
**Too wet and/or cold** where I work

# NEXT STEPS

## HAS YOUR DEPARTMENT TAKEN ANY ACTION TO ADDRESS THE RISK OF CANCER IN THE FIRE-SERVICE PROFESSION?



## CHANGES IN RESPONSE TO RISK

Increased laundering/cleaning of PPE	81%		
Decontamination procedures	66%		
Increased training of cancer-related risks	60%		
Changed standard operating procedures	53%		
Purchased a second set of turnout gear	45%	58%	14%
Implemented exposure tracking systems	26%	29%	10%
Require shower stations after a fire	23%	25%	9%
Purchased and installed a particulate hood	15%		
Changed station layout	12%		
None of the above	2%		

Volunteer fire departments occasionally cannot afford to implement the kinds of changes that paid fire departments can.

Firefighters consistently rank **“Training on how to reduce exposure”** as the top priority for handling cancer risks.



Firefighters universally agree that **more regulations are not the best** way to handle cancer risks

Volunteer firefighters report **more training exercises** in the past year than paid firefighters

### DID YOU KNOW

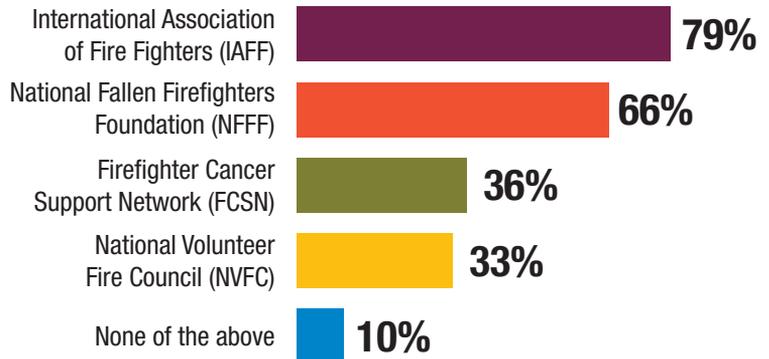


Most firefighters have participated in training exercises in the past year. Live burn exercises are the most commonly reported **(70%)** in the past year.

## FIREFIGHTERS ARE HIGHLY AWARE OF THE MAJOR FIREFIGHTER SUPPORT ORGANIZATIONS

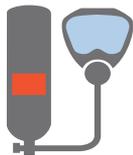
IAFF and NFFF are the two most prevalent firefighter support organizations.

## AIDED AWARENESS



# FIVE THINGS YOU CAN DO

1



**Wear** your SCBA from the fire attack through overhaul to limit inhalation of carcinogens.

2



**Clean** yourself off during gross decon to remove soot as soon as possible.

3



**Keep** contaminated gear out of your station's living and sleeping quarters. Also, don't take contaminated gear home.

4



**Make sure your gear is cleaned and inspected regularly internally or by a verified ISP.**

5



**Maintain** a personal exposure log of all fire calls.



## STOP CANCER AT THE DOOR.

To learn more about fire-related contaminant control best practices and to download Not in Our House firefighter cancer awareness materials, visit [www.notinourhouse.com](http://www.notinourhouse.com).



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