Firefighter Screening Tool Kit

The AAD is honored to be working with the network of firefighters to further avail skin screenings to firefighters across the country. Started in 2017 by board-certified dermatologist, Christine Kannler, more than 2400 firefighters have been screened in 100 locations. This program is exciting, and we are delighted to be working with you to further implement this opportunity throughout your state.

The goal is to initiate contacts in fire services within all fifty states to help arrange OR have a position within AAD to make scheduling arrangements OR have a Firefighter Union position. Difficulty is that each state has different rules, benefits and some firefighter groups do not have safety/ wellness positions.

FACTS

- In the 1980's, the Boston Fire Dept noticed that fellow firefighters were being diagnosed with cancer more frequently than non-firefighters. Cancer registry data showed that firefighter cancer rates were the highest followed by police and then all other occupations. [1,2]
- The September 2011 attack on the World Trade Center resulted in the largest cohort of firefighters and first responders with a similar exposure.
- Firefighters are exposed to benzene, polyaromatic hydrocarbons, per-polyfluoroalykyl substances (PFAS, PFOA, PFOS, PFC) diesel exhaust, chloroform, styrene that are inhaled, ingested, and absorbed into the skin.[3,4]
- US Firefighters have a 9% higher rate of cancers and a 14% higher mortality rate from cancer c/w age matched controls.[5]
- A Nordic firefighter study in 2014 collaborated the above results but also found an elevated rate of melanoma and prostate cancer in firefighters in the 30–49-year age range.[6]
- World Trade 14 year follow up study showed melanoma was a higher rate. Most importantly the firefighters who arrived at time zero had a higher rate of thyroid and prostate cancer compared with firefighters who arrived on 9/17/01.[7]
- Numerous meta-analysis and systemic reviews have shown there is an increase in the incidence and mortality of melanomas in firefighters.[8,9]
- Polyaromatic hydrocarbon (PAH) levels in firefighter urine sample increase 3.2 to 5.5-fold after a fire as compared to before the exposure to the fire.[10]

SUPPLIES:

- Exam gloves- S, M, L
- Hand sanitizer - 3M Avaguard
- Paper johnnies- for FF that desire, or females (Usually only a small number are used per screening)
- Paper underwear- available through Amazon (Kekafu disposable men shorts, one size fits all, 50 pack)

- Lights 5000 lumens with electric outlet one per screening area, extension cord per light (I like the extension cords with three receptacles because they are more versatile) Also make sure the light and extension cord are compatible (2 vs 3 prong)
- Battery operated light as back up if no plugs are available
- Dermatoscope or Dermlite Lumio scope
- Pens, Scotch tape, Clear packing tape, binder clips, clip boards (note-CA forms are 11X17 and can be folded on the clip board)
- Sanitizer wipes to wipe down chairs
- Handouts- AAD handouts, screening forms and Privacy Poster, NSTAR firefighter physical form, NFOR app form, FCSN 11 things to prevent CA, and state specific information about occupational cancer programs.
- "Walls"/ Partitions (can be purchased on Amazon- would recommend- dark color, opaque and hinges that are two-way rotation) or pipe and drape if in a conference center (would recommend extra drape to provide privacy and can use the binder clips to adhere exam rooms labels to the drape)
- Tables and seats for firefighters to fill out forms (if at a small station- can use the kitchen table or conference room)
- Samples of sunblock

PLANNING TIPS FOR DERMATOLOGISTS:

1.Record name, email, telephone number, location of work, location of residence, availability to volunteer (Monday- Friday after work, weekdays, weekend days)

2. Usually a 1:1 ratio to dermatology provider but 1:2 ratio would work as well

3. The fire service is responsible for organizing the arrival of the trucks/ scheduling firefighters

4. One to two fire service administrative person is available during screening to help with logistical issues

5. Dermatologist organizing the SPOT skin cancer event works with the fire department to be screened to organize the date, location, and time of the screening. If the event is held in Massachusetts, screenings should be organized through Abby Baker, Department of Fire Services. (Telephone 978-567-3205) as it is a prerequisite for additional cancer screenings

6. Helpful link-https://www.mass.gov/info-details/occupational-cancer-in-the-fire-service#resources-for-dermatologists-

7. Scheduling via signupgenius is a good idea to avoid wait times.

Medical Assistants/ Nurses

- Usually a 1:1 ratio to dermatology provider but 1:2 ratio would work as well. Bring firefighters to the exam room after paperwork is completed, instruct firefighter to disrobe and take a seat in the exam room
- Make sure exam room has small table and wipeable chair and is stocked with gloves, lighting, hand sanitizer, samples, handouts (AAD SPOT, list of local dermatologists)

- At end of exam, assistant collects the AAD SPOT paperwork and gives the firefighter a goodie bag with information about skin cancer and sun block samples
- Assistant then places the paperwork into labeled bins- no follow up, follow up recommended

Fire Service Personnel

- The fire service is responsible for organizing the arrival of the trucks/ scheduling firefighters
- One to two fire service admin people are available during screening to help with admin issues
- Can have firefighter administrative staff help with rooming firefighters, if needed- see above
- If it is a large screening -scheduling can be via survey monkey. In Massachusetts it is scheduled through LMS (the state firefighter education system). Boston Fire Dept (a large department) is 3 to 4 engines/trucks every 30minutes for three dermatology screeners.
- The National Firefighter Cancer Support Network has a lecture that we encourage before the screening event as firefighters seem more open to signing up for a screening after being educated on the cancer risks. https://firefightercancersupport.org/lms/

National Firefighter Cancer Support Network

- Cancer class for firefighters is an excellent class to offer prior to skin cancer screenings.
- Can pair you with local firefighters/ local firefighter unions. Contact Russel Osgood at rosgood@fcsn.net and copy Sandi Ring sring@aad.org

When to schedule with a Fire station

Can schedule at the fire station:

  - After work
  - On Saturday morning at shift change
  - Union meetings- Occur monthly and the larger conventions are annually

Local fire station: can use bunk rooms or large open room if have partitions

Large vs small fire departments:

- Small: Some educational piece then screen in bulk rooms. One time appearance
- Large: 4 Saturdays in a row from 8 – 3pm 170 ff screened if three derm volunteers in 2-hour shifts

Fire station specific issues

- Union- Confidentiality. No information to the town or union of the skin exam results. Some firefighters are worried about losing their jobs if they are ill.
- Some firefighters do not wear underwear- so the paper underwear is helpful for those situations
- Dermatologic specific issues commonly seen in firefighters- many firefighters have tattoos and facial hair which can make a complete skin exam more challenging. Educating firefighters that non healing wounds for longer than 3-4 weeks, recurring wounds in the same spot or changes to tattoos should be evaluated by a dermatologist can occur quite frequently when examining this subset of the population.

- Usually, four groups of 24-hour shifts- so at shift change you can sometimes grab folks from two shifts
- Usually a town/ municipality has a larger station and then smaller satellite stations – so can do the screening at the larger station and rotate folks to that location for screening
- Firefighters usually have a second job- so if the screening is after work hours of on a Saturday those folks can swing by and get screened.
- The folks at the screening can be rotated off the call roster if a large department. If the department is small, then hopefully it is a quiet day as the team may need to leave for a call. The station is normally able to help advise when a quiet time is to schedule.

A good sense of humor tends to be helpful when dealing with most firefighters!

Professional vs volunteer firefighters

- Professionals tend to be younger and have insurance
- Volunteers tend to be older and have other jobs so they may or may not have insurance

How to order Forms

Go to AAD website- www.aad.org/member/career/volunteer/spot

Each English screening packet contains 50 forms and handouts, along with PHI poster. Spanish screening packets are bundled with 10 forms in each packet.

Note-Most forms are 8.5X14" with the exception of California which are 11X17"

****WHEN FILLING OUT AAD FORMS PUT THE LOCATION AS FIRE STATION OR FIREFIGHTER****

How to contact your local Fire station

- Local Chief
- Union President
- State Fire Marshall
- Department of Fire Services
- National Firefighter Cancer Support Network

Fire Service

The fire service has many subspecialities, like medicine. This program could be expanded to include:

- Education Methodology/Instructor
- Education- new recruits
- Education- Officer
- Advanced firefighting skills
- Hazmat
- Industrial
- Airport
- Fire Safety

- EMS
- Gas
- Water rescue
- Arson
- Fire prevention
- Certification to clean hoods at restaurants
- Certification to be firefighter, fire instructor, officer
- IMPACT
- Brush fire/wildfire
- Bomb squad/ accelerant dog sniffing
- Public Education
- Rapid Intervention Training/ RIT

Citations

1. Kang et al. Cancer incidence among male Massachusetts firefighters, 1987-2003. AM J Ind Med. 2008 May;51(5):329-35
2. Sama et al. Cancer incidence among Massachusetts firefighters, 1982-1986. Am J Ind Med. 1990;18(1):47-54
3. Lemasters et al. Cancer risk among firefighters: a review and meta-analysis of 32 studies. J Occup Environ Med. 2006 Nov;48(11):1189-202.
4. National Firefighter Support Network. Accessed on 4/2/2022 https://firefightercancersupport.org/resources/faq/
5. Daniels RD, Kubale TL, Yiin JH et al. Mortality and cancer incidence in a pooled cohort of US firefighters from San Francisco, Chicago, and Philadelphia (1950-2009). Occup Environ Med 2014:71:388-397.
6. Pukkala et al. Cancer incidence among firefighters: 45 years of follow up in five Nordic countries. Occup Environ Med. 2014 Jun; 71 (6):398-404.
7. Jalilian et al. Cancer Incidence and mortality among firefighters Int J Cancer. 2019 Nov 15:145(1): 2639-2646
8. Laroche et al. Cancer Incidence and Mortality among Firefighters: An Overview of Epidemiologic Systemic Reviews. Int. J. Environ. Res. Public Health 2021, 18, 2519
9. Li et al. Cancer incidence in World Trade Center Rescue and Recovery Workers: 14 Years of Follow Up. J Natl Cancer Inst. 2022 Feb 7;114(2):210-219.
10. Hoppe-Jones C, Griffin SC, Gulotta, JJ, et al. Evaluation of fireground exposure using urinary PAH metabolites. J Expo Sci Environ Epidemiol. 2021 Sept; 31(5):913-922.