

## FIREFIGHTER PRE-PHYSICAL (PREP) GUIDE

Cancer Type	Signs & Symptoms		Workup	
Skin	<p><b>"ABCDE" Skin Lesion Criteria:</b></p> <ul style="list-style-type: none"> <li>○ Asymmetry</li> <li>○ Border irregularities</li> <li>○ Color variation (within the same region)</li> </ul>		<ul style="list-style-type: none"> <li>○ Diameter 6mm or larger</li> <li>○ Enlargement or change in shape, color or symptoms</li> </ul>	May require dermatology referral
Respiratory system: throat, airways and lung	<ul style="list-style-type: none"> <li>○ Chronic cough and sputum</li> <li>○ Dyspnea (shortness of breath)</li> <li>○ Chest pain</li> </ul>		<ul style="list-style-type: none"> <li>○ Weight loss</li> <li>○ Hemoptysis (coughing up blood)</li> <li>○ Hoarseness or chronic pharyngitis</li> </ul>	May require chest CT scan and ENT or pulmonary consult
Blood: leukemia, lymphoma and multiple myeloma	<ul style="list-style-type: none"> <li>○ Bleeding</li> <li>○ Fatigue</li> <li>○ Easy bruising</li> <li>○ Pale color</li> <li>○ Dyspnea</li> </ul>	<ul style="list-style-type: none"> <li>○ Fever or night sweats</li> <li>○ Weight loss</li> <li>○ Itching</li> <li>○ Large nodes</li> <li>○ Bone pain</li> </ul>	<ul style="list-style-type: none"> <li>○ Chronic infections</li> <li>○ Poor wound healing</li> <li>○ Brittle nails</li> </ul>	Complete labs sets; hematology referral may be required
Gastrointestinal (GI) system: mouth, liver, esophagus, colon and pancreas	<ul style="list-style-type: none"> <li>○ Bloody or dark stools</li> <li>○ Abdominal pain</li> <li>○ Change in bowel habits (pencil thin or loose stools or constipation)</li> </ul>		<ul style="list-style-type: none"> <li>○ Vomiting</li> <li>○ Fatigue</li> <li>○ Pain or difficulty with swallowing</li> <li>○ Jaundice</li> <li>○ Early satiety</li> <li>○ Weight loss</li> </ul>	GI referral, colonoscopy, and imaging studies may be required
Genito-urinary: kidneys, bladder, prostate, testicles for males; and uterine and ovarian for females	<ul style="list-style-type: none"> <li>○ Hematuria (blood in urine)</li> <li>○ Urinary frequency, urgency or slow stream</li> <li>○ Abdominal mass/pain</li> <li>○ Painless testicle mass</li> </ul>		<p><b>Females:</b></p> <ul style="list-style-type: none"> <li>○ Pelvic pain or bloating</li> <li>○ Abnormal gyn bleeding</li> </ul>	May need urinalysis, biomarkers, PSA testing, cystoscopy, imaging, urology referral, gynecology referral

## FIREFIGHTER CANCER AWARENESS AND PREVENTION PROGRAM

Dear Primary Care Provider:

Thank you for providing medical care to firefighters and playing a vital role in helping prevent the disturbingly high incidences of heart disease and cancer in firefighters. Boston firefighters have two and a half times the risk of developing cancer and acute coronary syndromes than other Boston residents because of chronic exposure to heat, smoke, diesel exhaust, and toxic flame retardants. These carcinogenic chemicals are absorbed, inhaled, and ingested into the skin, airways, and gastrointestinal system of firefighters at building fires as well as on a daily basis at the firehouse where they accumulate on and inside the bunker gear.

These exposures help account for the very alarming discovery that every three weeks a Boston firefighter is diagnosed with cancer. Boston firefighters have been found to have elevated rates of cancers of the brain, lung, colon, prostate, bladder, kidney, and skin. Every firefighter should obtain a thorough and confidential firefighter physical exam and undergo the screening tests listed below for prevention and early detection of these specific cancers annually.

### Recommended Firefighter Physical Exam and Screening Tests

Annual Exam	Annual Labs and Screening Tests
○ Blood pressure, pulse	○ Comprehensive metabolic and chemistry panel
○ Respiratory rate , temperature	○ Liver function tests
○ Oxygen Saturation	○ Hepatitis profile
○ Weight and body fat index	○ Complete blood count
○ Thorough skin exam	○ Thyroid panel
○ Eye exam and hearing testing	○ Hemoglobin A1c (for diabetes monitoring)
○ Oral exam	○ Fasting lipid profile and blood glucose
○ Heart and lung exam	○ Urinalysis and urine biomarkers
○ Abdominal and testicular exam	○ EKG
○ Prostate and rectal exam	○ PSA (begin at age 40 for prostate cancer screening)
○ Fecal occult blood testing	○ Pulmonary function test every 3 years
○ Pelvic and Pap for females	○ Low dose helical Chest CT scanning to begin at age 50
○ Vascular and neurological exams	○ Colonoscopy (begin age 40 and every 5 years)
○ Mental status exam	○ Exercise stress echocardiogram test (begin age 40 and every 3 years)
○ Musculoskeletal exam	○ Mammograms for females (begin age 35)

I have gained a unique perspective and understanding of the tremendous dangers and health risks associated with firefighting from my 20 years of combined experience as a Boston firefighter and the department physician for the BFD. Now as a practicing PCP who treats many firefighters, I am convinced that these screening protocols work and are very effective tools for early detection and prevention of these serious occupational related illnesses.

These high rates of cancer and heart disease in firefighters are no longer acceptable. Thank you for taking the time from your busy schedules to review these medical surveillance evaluations for firefighters. I do hope you seriously consider using these screening protocols for all your firefighter patients.

Sincerely,

Michael G. Hamrock, MD

(Dr. Hamrock is working closely with the Last Call Foundation to help develop a Boston Firefighter Cancer Awareness and Prevention Program. He practices primary care and addiction medicine at St. Elizabeth's Medical Center.)