

S.O.P. #: PERSONNEL-19

SUBJECT: PHYSICAL FITNESS PROGRAM

DIVISION: EMERGENCY OPERATIONS

Objective: To assist Baltimore County Fire Department Career members in achieving and maintaining optimal health, physical fitness and to avoid unnecessary risk of injury and/or death. This is achieved through a holistic approach to overall wellness via exercise, nutrition, weight control, tobacco cessation, and health and wellness education in a non-punitive environment. The ultimate goals of this procedure are to:

- Meet physical job demands
- Reduce the risk of injury or illness
- Enhance overall health and safety

SCOPE: This SOP applies to all uniformed members of the Baltimore County Fire Department. The reasonable standards included in this SOP were derived from other Fire Departments and uniformed agencies.

Section 1: Administration

- A. The Fire Chief will designate an individual to serve as the Health and Wellness Manager for the Baltimore County Fire Department. The Health and Wellness Manager will manage the Department's Fitness and Wellness program in its entirety. The Health and Wellness Manager should have a degree or background in health sciences.
- B. The Health and Wellness Manager will assemble a Fitness Core Group, with representation from, but not limited to, the Administration and Baltimore County Firefighters' Local 1311.
- C. The Fitness Core Group will meet at least twice per year to discuss the progress of the program and to address concerns and questions generated by members. This meeting, which will be advertised in the Fire Department Staff Report, can be opened for input from the field at the discretion of the Health and Wellness Manager.
- D. Members certified as an IAFF/IAFC/ACE Peer Fitness Trainer (PFT) should provide exercise leadership through guidance and supervision, and encourage safety and participation in regular physical fitness programs.
- E. Personnel from the field can send questions or fitness tips to fire_fitness@baltimorecountymd.gov.

Section 2: Peer Fitness Program

Definitions: Peer Fitness Coordinator (PFC): A member who has met all of the requirements of a PFT, tasked Administration of the Department's Peer Fitness Program.

Peer Fitness Trainer (PFT): A member who has met all of the requirements of a PFT, tasked with Assisting peers reach their health and fitness goals.

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- A. PFC/PFT'S will participate in the Fitness Core Group and assist with various tasks designated to steer the Department's Health & Wellness initiative including but not limited to:
 - 1. Research & Training
 - 2. Fitness Equipment
 - 3. Publishing/Morale
 - 4. Grants
 - B. PFT's will be available to provide individual fitness goal setting, design fitness programs, education and coaching. Use of PFT services is voluntary.
 - C. PFT's will coordinate and administer the annual Physical Readiness Training for all members and be available to address any health/fitness question or concerns.
 - D. PFT's may be consulted in the development of recruit physical fitness programs, ergonomics as it pertains to new apparatus design and other appropriate projects and programs as assigned.
 - E. PFT's will report, on a monthly basis, the number of member interactions they have to the PFC.
 - F. All PFT's will responsible for adhering to the IAFF/IAFC Wellness & Fitness Initiative Code of Ethics at all times.
 - G. All PFT's must maintain their certifications in order to participate in the program.

Section 3: Physicals

- A. Each career member of the Department should communicate with their personal primary care provider (PCP) and be physically assessed by them once every 18 months. Members are encourage to get whatever tests their PCP believes are necessary for someone in our profession. Members are required to provide a copy of Appendix F to their PCP to help them better understand what they may be exposed to throughout their career and what additional tests may be applicable.
- B. Baltimore County provides health care coverage that includes annual physicals for employees. Therefore, any co-pay or other expenses not covered by the county health care policies shall be the employee's responsibility.
- C. When the employee sees his or her PCP, they should take with them a copy of their job description as well as a copy of the Medical Authorization Form 503 (**APPENDIX D**), AND **APPENDIX F**. Blue Tag (EMS) members should provide the EMT or Paramedic job description. White Tag (SUPPRESSION) members should provide the Firefighter job description. The link to Job descriptions is:
<http://agency.governmentjobs.com/baltimorecounty/default.cfm?action=agencyspecs>
- D. Once the employee has received their physical, the employee and their OIC should complete the section of the Form 504 (**APPENDIX C**). The OIC will track the members of their shift on the 504 to ensure

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that each member has physical at least once every 18 months. The OIC will send a copy of the form 503 electronically to fire-safety@baltimorecountymd.gov using the following naming convention; Station shift 503 last name first initial rank.

Section 4: Annual Physical Fitness Assessment

- A. Each career member must, on an annual basis, attempt a Physical Fitness Assessment that is outlined in **APPENDIX A**.
- B. The employee will use the results from the annual Physical Fitness Assessment to establish fitness goals. The employee can communicate with a PFT to assist with this process, if they desire.
- C. The employee is encouraged to discuss their goals with their Station Officers so they can assist with the logistics of working towards the achievement of those goals.
- D. Fitness goals may be documented on the employee's yearly performance evaluation.
- E. The Station Officer will record that the annual Physical Fitness Assessment is completed each year by December 31, using Form 504.

Section 5: Physical Readiness Assessment

- A. Each career member must, on an annual basis, attempt a Physical Readiness Assessment as outlined in **APPENDIX B**.
- B. The assessment will be timed and the time will be provided to the member for purposes of self-assessment. Age, gender, and times will be collected and compiled to provide a general view of the Department's fitness level and allow members to compare themselves to their peers.
- C. The member will use the Physical Readiness Assessment to establish fitness goals. A Peer Fitness Trainer (PFT) will be available for consultation before and after the assessment.
- D. The Station Officer will record that the annual Physical Readiness Assessment is completed each year by December 31, using Form 504.

Section 6: Disposition

- A. In January of each year, the Battalion Chief/Division Chief (BC/DC) validates that every member under their command has completed a physical, the annual Physical Fitness Assessment, and the Physical Readiness Assessment.
- B. Cases where members are off long term or on light duty assignments will be evaluated on a case by case basis by the BC/DC in consultation with the Health and Fitness Manager.
- C. If a member has not completed a physical by their PCP, the annual Physical Readiness Assessment or the Physical Fitness Assessment for a valid reason, they will be allowed a make-up period that will be determined by the Fitness Manager in consultation with the BC/DC. This period will not count towards the benchmarks for the following year.

Section 7: Smoking / Use of Tobacco Products

Overview: The Baltimore County Fire Department has taken great strides over the past 20 years to improve the quality of life for our employees and their families. On the fire ground, each firefighter is equipped with Self-Contained Breathing Apparatus and a personal face piece. Additionally, the quality of air during a fire is monitored for harmful chemicals such as carbon monoxide, hydrogen cyanide and hydrogen sulfide. For each fire station, the department along with support from Local 1311 and the County Government retro-fitted each equipment bay area with exhaust mitigation systems to diminish the byproducts of diesel emissions. Several years ago the Baltimore County Government enacted a “smoke-free” workplace and prohibited smoking in all government buildings and vehicles.

For the Department, it seems appropriate to take additional measures to ensure your health and wellbeing and help our members overcome the challenges associated with using tobacco or being exposed to second hand tobacco smoke.

1. Effective July 1, 2016 the use of any tobacco product is prohibited on Baltimore County property.
2. All applicants hired after July 1, 2015 must agree to abstain from the use of tobacco products as a condition of employment. (Refer to **Appendix E**)

For those members needing assistance with a smoking cessation program, the Baltimore County Health Department offers assistance. We also strongly encourage each member to utilize their PCP and seek appropriate treatment.

A. Tobacco Products Defined

1. Tobacco products will be defined as products that include tobacco and are intended or expected for human use or consumption, including but not limited to, any lighted or unlighted cigarette, cigar, pipe, bidi cigarette, vapor cigarette, clove cigarette, and any other smoking product, and spit tobacco, also known as smokeless, dip, chew and snuff, in any form (i.e. lozenges, strips, pouches, etc.).

B. The Center for Disease Control and Prevention has listed the following Health Benefits of Cessation:

1. Lowers the risk for lung and other types of cancer.
2. Reduces the risk for coronary heart disease, stroke, and peripheral vascular disease. Coronary heart disease risk is substantially reduced within 1 to 2 years of quitting.
3. Reduces respiratory symptoms, such as coughing, wheezing, and shortness of breath. The rate of decline in lung function is slower among people who quit smoking than among those who continue to smoke.
4. Reduces the risk of developing chronic obstructive pulmonary disease (COPD), one of the leading causes of death in the United States.
5. Reduces the risk for infertility in women during their reproductive years. Women who stop smoking during pregnancy also reduce their risk of having a low birth weight baby.
6. Working together we can improve the quality of life for each member of the department and their families.

C. Violation of the Tobacco Policy

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Employee who are found in violation of this tobacco policy will be disciplined consistent with the Rules and Regulations of the Baltimore County Fire Department.

APPENDIX A

Physical Fitness Assessment Planks

- 0 Seconds-Very Poor
- Less than 20 seconds-Poor
- 20-40 seconds-Below Average
- 40-60 seconds-Average
- 60-80 seconds-Above Average
- 80-100 seconds-Good
- 100+seconds Excellent

Physical Fitness Assessment Push-ups (2 min)

Males

| | <u>Age 20-29</u> | <u>Age 30-39</u> | <u>Age 40-49</u> | <u>Age 50-59</u> | <u>Age 60-69</u> |
|--------------------------|------------------|------------------|------------------|------------------|------------------|
| Outstanding | ≥77 | ≥70 | ≥63 | ≥56 | ≥44 |
| Excellent | 67-76 | 60-69 | 52-62 | 46-55 | 36-43 |
| Good | 44-66 | 37-59 | 32-51 | 16-45 | 10-35 |
| Satisfactory | 34-43 | 27-36 | 21-31 | 10-15 | 4-9 |
| Needs Improvement | <34 | <27 | <21 | <10 | <4 |

Females

| | <u>Age 20-29</u> | <u>Age 30-39</u> | <u>Age 40-49</u> | <u>Age 50-59</u> | <u>Age 60-69</u> |
|--------------------------|------------------|------------------|------------------|------------------|------------------|
| Outstanding | ≥43 | ≥39 | ≥35 | ≥26 | ≥18 |
| Excellent | 37-42 | 34-38 | 30-34 | 20-25 | 12-17 |
| Good | 19-36 | 14-33 | 11-29 | 6-19 | 4-11 |
| Satisfactory | 13-18 | 9-13 | 5-10 | 2-5 | 1-3 |
| Needs Improvement | <13 | <9 | <5 | <2 | <1 |

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Physical Fitness Assessment
1.5mile run

Males

| | <u>Age 20-29</u> | <u>Age 30-39</u> | <u>Age 40-49</u> | <u>Age 50-59</u> | <u>Age 60-69</u> |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Outstanding | ≤9:38 | ≤10:08 | ≤10:30 | ≤11:25 | ≤12:43 |
| Excellent | 10:52-9:39 | 11:23-10:09 | 12:08-10:31 | 13:12-11:24 | 14:34-12:44 |
| Good | 12:53-10:53 | 14:08-11:24 | 14:53-12:09 | 16:15-13:13 | 18:13-14:35 |
| Satisfactory | 14:00-12:54 | 15:00-14:09 | 16:08-14:54 | 17:09-16:16 | 20:35-18:14 |
| Needs Improvement | >14:00 | >15:00 | >16:08 | >17:09 | >20:35 |

Females

| | <u>Age 20-29</u> | <u>Age 30-39</u> | <u>Age 40-49</u> | <u>Age 50-59</u> | <u>Age 60-69</u> |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Outstanding | ≤11:45 | ≤12:08 | ≤12:30 | ≤13:57 | ≤16:19 |
| Excellent | 13:23-11:46 | 13:45-12:09 | 14:08-12:31 | 15:20-13:58 | 17:30-16:20 |
| Good | 14:53-13:24 | 15:53-13:46 | 16:30-14:09 | 17:48-15:21 | 19:54-17:31 |
| Satisfactory | 16:08-14:54 | 17:00-15:54 | 17:23-16:31 | 18:34-17:49 | 20:52-19:55 |
| Needs Improvement | >16:08 | >17:00 | >17:23 | >18:34 | >20:52 |

Planks

1. Start by getting into a press up position
2. Bend your elbows and rest your weight onto your forearms and not on your hands
3. Your body should form a straight line from shoulders to ankles
4. Engage your core by sucking your belly button into your spine
Hold this position as long as possible

Figure 1



Figure 2



Push-ups

Figure 1



Figure 2



To begin, the employee should assume the front-leaning rest position (arms extended) by placing your hands where they are comfortable for you; your feet may be together or up to 12 inches apart; when viewed from the side, your body will form a straight line from your shoulders to your ankles (Figure 1). On the command "GO," begin the push-up event by bending your elbows and lowering your entire body as a single unit until your upper arms are at least parallel to the ground - 90 degrees (Figure2).

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Then, return to the starting position by extending your arms and raising your entire body as a single unit until your arms are fully extended.

Employees may rest in the "up" position, flexing or bowing the back as long as he/she does not lift a hand/foot off the floor, or touch any other body part on the floor. Employees must return to the generally straight body position before attempting another repetition.

The assistant will give the command "GO" and start the stopwatch for the 2-minute trial. He/she will monitor each repetition making sure the body remains rigid in a generally straight line, moves as a single unit, the upper arm is parallel to the floor in the "down" position and the arms come to full extension in the "up" position. At the 2-minute mark, the assistant will give the command "Stop" and record the number of properly executed repetitions.

One and a Half Mile Run

The employee must assume a starting position behind the start/finish line. On the command "GO," the employee will run continuously for one and a half miles (walking is allowed). The employee's time stops when he/she crosses the finish line.

The assistant will give the command "GO" and start the stopwatch.

The assistant will stop the watch as soon as the employee crosses the finish line and record the time in minutes/seconds.

This test can be performed on a treadmill. When running on the treadmill, be sure to let your arms swing freely at your sides (do not hold on to the handrails). Keep the incline of the treadmill level (at zero). You or your partner need to record the time on the treadmill when you complete 1.5 miles at your testing speed (keep in mind it takes a few seconds to increase the speed of the treadmill).

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Physical Readiness Assessment Course
Muscle/Exercise Focus

White PAT Tag Physical Readiness Assessment

To be completed in full PPE including SCBA (not on air), helmet and gloves. Rescue gloves are permitted.

Station 1 – Tire drag: Using the attached rope, drag the tire 25 feet down and cross the line marked on the pavement. Turn around and drag the tire 25 feet back.

LEGS, CORE.

Station 2 – Hose Drag: Grab the 3 inch hose in the marked area and drag the hose 50 feet down around the barrel then another 25 feet to the box marked on the ground. Go down on one knee in the marked box and hand over hand pull the hose 25 feet.

LEGS, UPPER BODY, CARDIO.

Station 3 - High rise and equipment raise: Place high rise pack from the table over your shoulder. Enter the tower and climb stairs to the top floor, wave out the window, then begin down. Stop on the 3rd floor to complete the equipment raise. **Equipment raise:** Place high rise bundle on the table. Go to the window and raise section of hose (25 lb.) 20 feet up until the marker on the rope reaches the edge of the window and lower back down. Re-shoulder the high rise bundle, then continue down to 1st floor and exit the tower.

LEGS, UPPER BODY, CARDIO.

Station 4 – Ladder extension: Extend and lower 35 foot ladder fully.

UPPER BODY.

Station 5 – Ladder climb: Ascend a pre-positioned & secured ground ladder to the 3rd floor window, touch the windowsill and descend.

LEGS, CORE.

Station 6 – Equipment carry: Pick up 2 20 pound weights from the ground. Stand up with the weights and walk 25 feet down and around barrel and back. Place equipment back on the ground.

UPPER BODY.

Station 7 – Crawl: Begin at the point of entry and crawl thorough the gear rack in a serpentine to the end.

FULL BODY, CARDIO.

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Blue PAT Tag Physical Readiness Assessment

To be completed in issued gear with gloves and helmet. Rescue gloves are permitted.

Station 1 – Tire drag: Using the attached rope, drag the tire 25 feet down and cross the line marked on the pavement. Turn around and drag the tire 25 feet back.

LEGS, CORE.

Station 2 – Stair Climb: Pick up 30 pound medical bag, enter tower and climb stairs to the top floor, wave out the window, then begin down. Stop on the 3rd floor to complete station 3. Then continue down to 1st floor and exit the tower.

LEGS, CARDIO

Station 3 – Backboard Lift: Raise 65# hinged back board prop on the 3rd floor from ground to waist height 10 times. Finish station 2.

LEGS, CORE, UPPER BODY

Station 4 – CPR: perform CPR for 5 cycles of 30 compressions.

CARDIO, CORE.

Station 5 - Crawl: Begin at the point of entry and crawl thorough the gear rack in a serpentine to the end.

FULL BODY, CARDIO.

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APPENDIX C



Physical Fitness Compliance Form

Name: _____

Date: _____

| Benchmark | Date Completed | Employee Signature | OIC Signature |
|--|-----------------------|---------------------------|----------------------|
| Physical/ Medical Assessment | | | |
| Physical Fitness Assessment | | | |
| Physical Readiness Assessment | | | |

Form 504 (Rev. May 2014)

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APPENDIX D



Medical Authorization Form

Patient's

Employee

Name: _____ Number: _____

This is to verify that I have read and understand the attached job description as well as Appendix F of the above named individual and that I have performed a complete history and physical exam and that the employee is medically able to perform all of the physical requirements listed in all of the sections of the job description.

Signature of Primary Care Provider

Date

Printed Name of Primary Care Provider

Type of Practice

Address

Telephone Number

APPENDIX E



Baltimore County Fire Department
Tobacco Abstinence Agreement



ALL APPLICANTS OFFERED A POSITION OF EMPLOYMENT WILL BE REQUIRED TO SIGN THIS ABSTINENCE AGREEMENT.

The Baltimore County Fire Department is committed to promoting health, wellness, and disease prevention within the community and to provide a safe, clean and healthy environment for our employees and the citizens that we serve. The use of tobacco products has been proven to be an established hazard to those who use them as well as those around them. In recognition of these findings, the Baltimore County Fire Department has taken measures to ensure a tobacco free work place. As part of that initiative, employees hired after July 1, 2015 will agree, as a condition of employment that they will abstain from the use of any tobacco products, on or off duty, throughout the duration of their employment with the Baltimore County Fire Department.

For the purposes of this agreement, tobacco products will be defined as products that include tobacco and are intended or expected for human use or consumption, including but not limited to, any lighted or unlighted cigarette, cigar, pipe, bidi cigarette, an electronic cigarette including a battery operated device that delivers nicotine or tobacco, vapor cigarette, clove cigarette, and any other smoking product, and spit tobacco, also known as smokeless, dip, chew and snuff, in any form (i.e. lozenges, strips, pouches, etc.).

APPLICANT AGREEMENT

I, _____ (print name), affirm and understand a condition of my employment is that I will remain tobacco free, on duty and off duty, for the duration of my employment with the Baltimore County Fire Department. I understand that if it is determined that I am in violation of this abstinence agreement, it will result in the initiation of progressive disciplinary action consistent with the Rules and Regulations of the Baltimore County Fire Department that could result in termination of employment, consistent with all applicable laws.

Signature of Applicant

Date

Witness

Date

Tobacco Abstinence Agreement

06/15/15

APPENDIX F

YOUR PATIENT IS A FIREFIGHTER/EMS PROVIDER

The purpose for this document is to assist the healthcare provider in the evaluation, treatment, and ongoing surveillance of the health and wellness of the Firefighter/EMS Provider. 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/EMS provider. As with any clinical references, they should be used with the understanding that ongoing research may result in new information and revised recommendations.

PHYSICAL EXAMINATION CHECKLIST

RECOMMENDED YEARLY SCREENING

- Vitals: BP, HR, RR, weight, body fat percentage
- Multi-System PE: skin, mouth, thyroid, vascular, neurologic and musculoskeletal
- Labs: CMP, CBC, Lipid Panel, TSH, Urinalysis, HbA1c
- Testing: 12-lead EKG, eye exam, hearing test, oxygen saturation
- Family History: CVD, sudden cardiac death, diabetes and cancer
- Personal Health Behaviors: tobacco use, alcohol, exercise, dietary habits

CARDIOVASCULAR HEALTH AND FITNESS

Significant cardiovascular demands of firefighting lead to acute coronary events that account for 45% of deaths among on-duty firefighters, in contrast to 15% of all deaths occurring on conventional jobs. Myocardial infarction is the leading cause of death of firefighters, and these events occur almost exclusively in susceptible firefighters with underlying cardiovascular disease (CVD). It is therefore prudent to thoroughly screen for, and aggressively treat, all CVD risk factors, including diabetes, in this very high risk group of patients.

- Ischemia is best evaluated by an imaging exercise stress test (nuclear or echocardiography) beginning at age 40 or earlier for clinical suspicion. Exercise stress testing without imaging is not recommended as it may fail to identify one-third of those who may need cardiac intervention (angioplasty or bypass surgery).
- Consider Coronary Artery Calcium CT scan to evaluate occult coronary artery disease.
- Echocardiography is recommended once as a baseline to evaluate significant cardiac structural abnormalities, including LVH and HCM.

CANCER

Chronic exposures to heat, smoke, and toxic flame retardants through inhalation, ingestion, and skin absorption put firefighters at risk for many cancers. The National Institute for Occupational Safety and Health (NIOSH) performed a multi-year study of nearly 30,000 firefighters to better understand the potential link between firefighting and cancer. The firefighters studied showed higher rates of certain types of cancer than the general U.S. population in digestive, oral, respiratory, and urinary cancers. Providers should be especially vigilant to conduct cancer screening efforts in these particular areas. The following cancer screening recommendations for firefighters do exceed those of the USPSTF guidelines for the general population. It is because of our extensive clinical experiences dealing with firefighting health issues that we are strongly advocating for these screening tests in this high risk group. We rely on your medical judgement to prescribe the most appropriate screenings in this unique patient population.

- Colonoscopy or other appropriate colon cancer screening beginning at age 40.
- Annual PSA with digital rectal exam between ages 40-45. Sufficient information regarding the risk and benefits of screening and treatment should be discussed.
- Annual pap smear.
- Annual mammograms beginning at age 40. Discuss screening at an earlier age if there is a family history or any patient concern.
- Annual head to toe skin examination and appropriate dermatology follow-up.
- Urinalysis annually for microscopic hematuria.

MUSCULOSKELETAL INJURIES

The high intensity and dynamic work environment of firefighting leads to a high incidence of musculoskeletal injuries. Low back injuries represent approximately 50% of all job related musculoskeletal injuries among firefighters. These include strains, sprains, and intervertebral disc injuries, often leading to significant morbidity with the possibility of permanent disability. Obesity and deconditioning are strong predictors of musculoskeletal injuries.

- Address underlying musculoskeletal issues. Assess for full range of motion, low back strength and flexibility as well as core muscle strength.
- Refer as necessary for treatment.
- Encourage flexibility and core strengthening exercises.

BEHAVIORAL HEALTH

The mental and physical stress of firefighting and repeated exposure to trauma can lead to depression, anxiety, acute stress reactions, post-traumatic stress, and suicidal ideation. Self-medication with alcohol and drugs can result in substance abuse disorders.

- Behavior health screening.
 - Prime MD: http://www.psy-world.com/prime-md_print1.htm
 - AUDIT & CAGE for Alcohol Screening: <http://pubs.niaaa.nih.gov/publication/arh28-2/78-79.htm>

LUNG DISEASE

In the line of duty, firefighters are often exposed to carbon monoxide and other inhaled toxins, or irritants that may lead to acute respiratory issues such as hypoxemia or bronchoconstriction. Repeated exposure may cause chronic pulmonary disease and abnormal lung function. Changes in lung function and the development of lung disease may be detected with baseline and periodic assessment and should include the following tests.

- Spirometry: Baseline and annual pulmonary function testing in those with a history of respiratory health problems and in healthy individuals; to include FEV1, FVC, and the absolute FEV1/FVC ratio.
- Chest x-ray: Baseline chest x-ray in those with any respiratory symptoms or disease and in healthy individuals. Repeat chest x-rays every 5 years or sooner if medically indicated.
- Consider low dose CT for screening for lung cancer in high risk individuals.

SLEEP DISORDERS

Sleep disorders are highly prevalent in firefighters and include sleep apnea, insomnia, shift-work disorder, and restless leg syndromes. It is imperative to screen firefighters for these disorders since they substantially increase the risks for motor vehicle accidents, cardiovascular disease, diabetes, depression, and anxiety in firefighters.

- Assess sleep and use of sleep medications.
- Screen for sleep apnea and consider sleep study as indicated.
- Helpful screening tools include:
 - Epworth Sleepiness Scale:
<http://bami.us/Sleep/SleepScale.html/yoursleep.aasmnet.org/pdf/Epworth.pdf>
 - STOP-Bang questionnaire: <http://www.stopbang.ca/osa/screening.php>
 - Berlin Questionnaire:
https://www.fairview.org/fv/groups/internet/documents/web_content/s_062202.pdf
 - Diagnosis of obstructive sleep apnea (OSA) algorithm:
http://www.guideline.gov/algorithm/6582/NGC-6582_1.pdf

INFECTIOUS DISEASES

Firefighters are often first on the scene of an emergency and may be exposed to HIV, hepatitis (A, B, and C), TB and other infectious diseases.

- Establish immunity by vaccination record review and/or titers and update vaccines including Tdap, MMR, HBV, and Varicella. Consider hepatitis A vaccine.
- Baseline and periodic screening for HIV, HBV, HCV and other communicable diseases.
- Provide annual influenza vaccine.