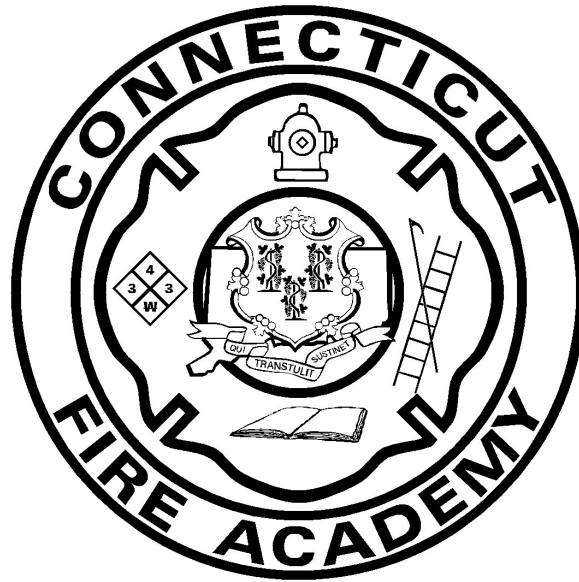


State of Connecticut
Department of Emergency Services and Public Protection

Connecticut Fire Academy Recruit Firefighter Program



NFPA 1582 Medical Examination Guidance for Physician

Revision 07/20/2015

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During the medical evaluation, the physician shall evaluate each individual to ascertain the presence of any medical conditions listed in documents similar to or from the National Fire Protection Association's 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments. The medical evaluation should also include any medical conditions not listed which would prevent the individual from performing the "Essential Job Tasks" of a firefighter without posing significant risk. It is our intent to encourage the use of professional judgment regarding medical conditions which are not specifically listed in the medical evaluation reference material specific to the firefighting occupation.

A recruit shall NOT be certified as meeting the medical requirements of these standards if the physician determines that the candidate has any Category "A" medical condition specified in these standards. Furthermore, a recruit shall not be certified as meeting the medical requirements of these standards if the physician determines that the candidate has a Category "B" medical condition that is of sufficient severity to prevent the recruit from performing the essential functions of a firefighter without posing a significant risk to the safety and health of self or others.

For the purpose of these guidelines at minimum the OSHA 1910.134, Respiratory Protection Program Guidelines Medical Evaluation Questionnaire should be considered as one important and critical element of the overall medical evaluation process.

Essential Firefighter Job Tasks potentially to be Performed

(Condensed from NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments)

1. Performing firefighting tasks – hose handling, lifting, crawling, carrying heavy objects, etc, all performed under stressful conditions while in full firefighting gear (PPE).
2. Wearing an SCBA (airpak) in all potential circumstances.
3. Exposure to all forms of potentially toxic environments despite the use of PPE and SCBA.
4. Climbing up to and beyond six flights of stairs in full PPE.
5. Wearing encapsulating/insulated gear causing raised internal temperatures and dehydration.
6. Performing search and rescue of victims, possibly weighing over 200 lbs.
7. Advancing water filled hose lines up to 2 1/2" in diameter, upstairs and around corners.
8. Climbing ladders, working from heights, working in poor visibility and operating around electrical and other hazards.
9. Operating in unpredictable emergencies for prolonged periods in extreme conditions without warm-up, rest, nutrition/hydration, or access to medications.
10. Operating fire apparatus in "emergency mode" (vehicles and equipment).
11. Performing complex problem solving in extreme conditions.
12. Communicating under very poor conditions in full PPE.
13. Functioning as a part of a firefighting team where there are great risks of injury and/or death to emergency responders and civilians.



The medical evaluation shall minimally include the following:

- A comprehensive medical history
- A baseline (pre-placement) occupational history, including significant past exposures and training and experience with personal protection equipment
- Height and Weight
- Vital signs: pulse, respiration, blood pressure, and, if indicated, temperature
- Dermatological system
- Ears, Eyes, Nose, Mouth, Throat
- Cardiovascular system
- Respiratory system
- Gastrointestinal system
- Genitourinary system
- Endocrine and metabolic systems
- Musculoskeletal system
- Neurological system
- Mental status evaluation.
 - Based on the severity, diagnosis, and impairment of any identified behavior or condition, the initial examiner is encouraged to consider referral of the applicant to a doctoral level mental health professional for further evaluation. In general, the current or recent use of psychotropic medications shall be reviewed by a Board certified psychiatrist.
- Audiometry.
 - Audiograms should be performed in an ANSI approved "soundproof" booth (ANSI S3.1-1977) with equipment calibrated to ANSI standards (ANSI S3.6-1973). If a booth is unavailable, the test room sound pressure levels should not exceed those specified in the Federal OSHA noise regulations (29 CFR 1910.25),
- Visual acuity and peripheral vision testing
- Pulmonary function testing.
 - A baseline test should be administered by an experienced individual. Only a spirogram that is technically acceptable and demonstrates the best efforts by an individual should be used to calculate the Forced Vital Capacity (FVC) and Forced Expiratory Volume in one second (FEV1.0),
- Review of hepatitis B immunization status including hepatitis B surface antibody titer if immunized, offer of hepatitis B vaccine if not fully immunized or HbgAb titer less than 10 and documentation of declination if vaccination refused by examinee,
- A Purified Protein Derivative (PPD) test for tuberculosis, based on individual departmental infection control plans, and,
- Other diagnostic testing where indicated.

The medical evaluation process should also include:

- A review of tetanus immunization status.



All medical information collected as part of a medical evaluation shall be considered confidential medical information, and shall be released by the physician only with the specific written consent of the recruit. The physician shall report the results of the medical evaluation to the recruit, including any medical condition(s) disclosed during the medical evaluation, and the recommendation whether the recruit is medically certified to perform as a firefighter. The physician shall inform the fire department only whether or not the recruit is medically certified to perform as a firefighter. The specific written consent of the recruit shall be required to release confidential medical information to the fire department, following guidelines set forth under the Americans with Disabilities Act (ADA) and other relevant policies.

Category A and Category B Medical Conditions:

- A Category "A" Medical Condition is a medical condition that would preclude an individual from performing the essential job tasks of a municipal firefighter in a training or emergency operational environment, or present a significant risk to the safety and health of that individual or others.
- A Category B Medical Condition is a medical condition that, based on its severity or degree, may or may not preclude an individual from performing the essential job functions of a municipal firefighter in a training or emergency operational environment, or present a significant risk to the safety and health of that individual or others.

The following biological systems should be components of the medical evaluation for fire fighters:

Musculoskeletal

- Head and Skull
 - Category A medical conditions shall include:
 - None.
 - Category B medical conditions shall include:
 - Deformities of the skull or loss or congenital absence of the bony substance of the skull which limit the ability to wear a mask and/or protective breathing apparatus,
 - Thoracic outlet syndrome sufficient to compromise required activity,
 - Congenital cysts, chronic draining fistulas, or similar lesions,
 - Any other head condition that results in an individual not being able to perform the job of fire fighter.
- Neck and Cervical Spine
 - Category A medical conditions shall include:
 - None
 - Category B medical conditions shall include:
 - Cervical arthrodesis/fusion,/instability
 - Cervical canal stenosis,
 - Cervical radiculopathy or myelopathy,
 - Herniated disc,
 - Degenerative disc disease,
 - Abnormal chronic contraction of neck muscles,
 - Any other neck condition that results in an individual not being able to perform the job of a firefighter



- Thoracic/lumbar/sacral Spine
 - Category A medical conditions shall include:
 - Symptomatic spondylolisthesis, whether or not surgically corrected.
 - Category B medical conditions shall include:
 - Lumbar laminectomy or discectomy, with or without fusion.
 - Degenerative disease/spondylolysis/pars defect
 - Structural abnormality, fracture, or dislocation,
 - Degenerative disk disease,
 - Herniated disk/sciatica/radiculopathy,
 - Spinal stenosis,
 - Spinal surgery not covered in Category A,
 - Any other spinal condition that results in an individual not being able to perform the job of firefighter

- Extremities
 - Category A medical conditions shall include:
 - Hemipelvectomy,
 - Hip disarticulation,
 - Above-the-ankle amputation,
 - Upper extremity amputation at or above the wrist
 - Category B medical conditions shall include:
 - Severe limitation of motion of a joint, fibrosis, or arthrodesis,
 - Other amputations not covered in Category A,
 - Total joint arthroplasty:
 - Shoulder
 - Elbow
 - Wrist
 - Hip
 - Knee
 - Deformity or dislocation of a joint or limb,
 - Joint reconstruction, ligamentous instability, or joint replacement not covered in (iii),
 - Chronic osteoarthritis or traumatic arthritis,
 - Inflammatory arthritis,
 - Osteomyelitis,
 - Compressive neuropathies including carpal tunnel syndrome or ulnar nerve palsy,
 - Required use of stabilizing orthopedic braces,
 - Any other extremity condition that results in an individual not being able to perform the job of firefighter



Eyes and Vision

The medical evaluation shall minimally include visual acuity (Snellen) and peripheral vision testing using a Titmus or Optec Vision Screener or other similar standardized testing device. Contact lenses are not permitted to meet the uncorrected standard. When the candidate is being tested, he/she must present without wearing contact lenses, so that uncorrected vision can be accurately tested.

- Category A medical conditions shall include:
 - Uncorrected vision worse than 20/100 in either eye,
 - Corrected vision worse than 20/20 in the better eye UNLESS – the vision in the good eye alone is at least 20/25 AND the vision with both eyes together is 20/20 or better.
 - Peripheral vision of less than 70 degrees temporally and 45 degrees nasally in either eye AND/OR any history of conditions limiting field of vision will necessitate additional assessment by an eye care professional who will use a Goldmann-type perimeter to determine if the binocular visual field is 140 degrees (at least 70 degrees temporally in each eye) with a III4e isopter.
- Category B medical conditions shall include:
 - Diseases of the eye such as cataracts, retinal detachment, progressive retinopathy, or optic neuritis,
 - Ophthalmological procedures such as radial keratotomy or repair of retinal detachment,
 - Any other vision disorder or eye condition that results in an individual not being able to perform the essential functions of a firefighter.

Nose, Mouth, and Throat

- Category A medical conditions shall include:
 - Tracheostomy,
 - Aphonia,
 - Congenital or acquired deformities which interfere with wearing a face mask or other required protective equipment.
- Category B medical conditions shall include:
 - Congenital or acquired deformities not covered in Category A,
 - Defects of articulation that materially interfere with verbal communication
 - Defects of rate (stuttering, stammering, or cluttering) that interfere with verbal communication
 - Chronic severe rhinitis,
 - Any other nose, oropharynx, trachea, esophagus, or larynx condition that interferes with breathing or speech or otherwise results in an individual not being able to perform as a firefighter or to communicate effectively.



Dental

- Category A medical conditions shall include:
 - Dental, jaw structural, or other abnormalities which preclude the ability to be fitted for and safely use protective equipment.
- Category B medical conditions shall include:
 - Diseases of the jaws or associated tissues,
 - Orthodontic appliances,
 - Oral tissues, extensive loss,
 - Any other dental condition that results in an individual not being able to perform as a fire fighter.

Ears and Hearing

The medical evaluation shall minimally include audiograms performed in an ANSI approved sound-treated booth (ANSI S3.1-1999) with equipment calibrated to the ANSI S3.6-1996, or current, standard. If a booth is unavailable, the test room sound pressure levels should not exceed those specified in the Federal OSHA noise regulations (29 CFR 1910.95 Appendix D).

- Category A (Failure of general standard):
 - Hearing deficit in pure tone thresholds in both ears, the deficit in each ear averaging 35 dB HL or worse at 500, 1000, 2000, and 3000 Hz,
- Category B: Candidates failing the Category A standard and who still wish to be considered for appointment will be required to have follow-up examinations that include:
 - Full audiological examination, including speech reception threshold (SRT) and speech discrimination testing (NU-6 word lists) in both ears,
 - Full otological examination,
 - In order to pass:
 - Pure tone thresholds in better ear indicating average hearing levels at 500, 1000, 2000, and 3000 Hz to be lower than 35 dB HL,
 - AND
 - Performance score of 80% or better on the speech discrimination test in the better ear.
 - Category B medical conditions shall include:
 - Perforated tympanum,
 - Auditory canal - atresia, severe stenosis, or tumor,
 - Severe external otitis,
 - Auricle - severe agenesis or traumatic deformity,
 - Mastoid - severe mastoiditis or surgical deformity,
 - Meniere's disease, labyrinthitis or any disorder of equilibrium,
 - Otitis media,
 - Any other hearing disorder or ear condition that results in an individual not being able to perform the essential functions of a fire fighter.

HEARING AIDS: Non-implantable hearing aids are not permitted; must pass above-described standards unaided, or pass with the use of implantable hearing aids based on sound field-testing.



Respiratory

- Category A medical conditions shall include:
 - Lung abscess or empyema,
 - Active tuberculosis,
 - Pneumothorax,
 - Interstitial disease with abnormal exercise oxygen desaturation,
 - Moderate to severe obstructive pulmonary disease, using the following criteria:
 - Frequent exacerbation of symptoms (>1-2 times per week),
 - Cough and low grade wheezing between exacerbations,
 - Diminished exercise tolerance,
 - Signs of airway obstruction using spirometry,
 - Regular drug therapy required.
- Category B medical conditions shall include:
 - Lobectomy or pneumonectomy,
 - Obstructive disease not meeting Category A criteria,
 - Chronic bronchitis,
 - Emphysema,
 - Bronchiectasis,
 - History of bronchiectasis, bronchitis, fibrous pleuritis, fibrosis, cystic disease, tuberculosis, mycotic lung disease, or pneumothorax,
 - Interstitial disease with normal exercise oxygen saturation,
 - Any other respiratory condition that results in an individual not being able to perform as a firefighter.

Skin

- Category A medical conditions shall include:
 - None.
- Category B medical conditions shall include:
 - Non-localized, i.e., widespread, skin disease.
 - Extensive skin grafts,
 - Any other dermatologic condition that results in an individual not being able to perform as a firefighter.

Hematopoietic and Lymphatic

- Category A medical conditions shall include:
 - Hemorrhagic states requiring replacement therapy, including hemophilia,
 - Sickle cell disease (homozygous).
- Category B medical conditions shall include:
 - Anemia, leukopenia, or thrombocytopenia or chronic anticoagulation therapy,
 - Polycythemia vera,
 - Splenomegaly,
 - History of thromboembolic disease,
 - Any other hematological condition that results in an individual not being able to perform as a firefighter.



Cardiovascular

- Heart
 - Category A medical conditions shall include:
 - Current diagnosis of angina pectoris,
 - Congestive heart failure,
 - Aneurysm,
 - Acute or chronic pericarditis, endocarditis, or myocarditis. Endocarditis with resultant significant valvular lesions, or myocarditis leading to myocardial insufficiency,
 - Cardiac or multi-organ transplant or left ventricular assist device,
 - Third degree AV block without cardiac pacemaker,
 - Coronary artery disease, cardiac hypertrophy, or other cardiac condition without evidence of a functional capacity greater than 9 METs,
 - Recurrent syncope,
 - History of sudden cardiac death syndrome,
 - Hemodynamically significant valvular heart disease,
 - Current diagnosis of embolism or thrombophlebitis,
 - Automatic implantable cardioverter defibrillator (AICD).
 - Category B medical conditions shall include:
 - Coronary artery disease not covered in Category A,
 - Significant arrhythmias,
 - Cardiac hypertrophy,
 - History of myocardial infarction, coronary artery bypass, coronary angioplasty, stent placement, or atherectomy,
 - Congenital abnormality,
 - Cardiac pacemaker,
 - Any other cardiac condition that results in an individual not being able to perform as a firefighter.
- Vascular System
 - Category A medical conditions shall include:
 - Congenital or acquired lesions of the aorta and major vessels,
 - Marked circulatory instability as indicated by orthostatic hypotension, persistent tachycardia, and severe peripheral vasomotor disturbances,
 - Aneurysm of a major vessel, congenital or acquired,
 - Untreated persistent hypertension (systolic blood pressure of 160 mmHg or greater or diastolic blood pressure of 100 mmHg or greater).
 - Category B medical conditions shall include:
 - Persistent hypertension controlled through medication (systolic blood pressure less than 160 mmHg and diastolic blood pressure less than 100 mmHg),
 - Peripheral vascular disease, including intermittent claudication and Raynaud's Phenomenon,
 - Thrombophlebitis,
 - Chronic lymphedema,
 - Severe varicose veins,
 - Any other vascular condition that results in an individual not being able to perform as a fire fighter.



Gastrointestinal

- Category A medical conditions shall include:
 - Liver or multi-organ transplantation,
 - Active gastrointestinal bleeding.
- Category B medical conditions shall include:
 - Cholecystitis,
 - Gastritis,
 - Chronic or acute hepatitis,
 - Hernia,
 - Inflammatory bowel disease,
 - Intestinal obstruction,
 - Any other gastrointestinal condition that results in an individual not being able to perform as a fire fighter.
 - Pancreatitis,
 - Bowel resection,
 - Gastrointestinal ulcer,
 - Cirrhosis,
 - Diverticulitis,

Reproductive

- Category A medical conditions shall include:
 - None.
- Category B medical conditions shall include:
 - Pregnancy, for its duration. Any appointee who is pregnant shall be evaluated based on the appointee's ability to perform as a fire fighter in a training or emergency operational environment. Furthermore, a pregnant appointee shall be informed of the potential risks to her fetus due to possible exposures during fire fighter duties
 - Any other reproductive condition that results in an individual not being able to perform as a firefighter.

Genitourinary

- Category A medical conditions shall include:
 - Renal disease requiring dialysis,
 - Renal or multi-organ transplantation.
- Category B medical conditions shall include:
 - Any other renal, urinary, or genital condition that results in an individual not being able to perform as a firefighter.

Tumors and Malignant Disease

- Category A medical conditions shall include:
 - None.
- Category B medical conditions shall include:
 - Malignant disease which is newly diagnosed,
 - Untreated, or currently being treated. The medical evaluation of any appointee with malignant disease which is newly diagnosed, untreated, or currently being treated shall be deferred until treatment has been completed. Treated malignant disease shall be evaluated based on that individual's current physical condition and on the likelihood of that individual's disease to recur or progress.
 - Any other tumor or malignancy that results in an individual not being able to perform as a firefighter.



Neurological

- Category A medical conditions shall include:
 - Ataxia,
 - Cerebral Arteriosclerosis as evidenced by documented episodes of neurological impairment, including cerebrovascular accidents (CVAs) and transient ischemic attacks (TIAs),
 - Multiple Sclerosis with activity or evidence of progression within previous three (3) years,
 - Muscular Dystrophy,
 - Myasthenia Gravis,
 - ALS,
 - All seizure disorders and choreoathetosis to include psychomotor, focal, petit mal, or grand mal seizures other than for those with:
 - Complete control during previous five (5) years with either no medication or a constant dose of the same medication,
 - Normal neurological examination, and
 - Definitive statement from qualified neurological specialist,
 - Dementia,
 - Any disorder affecting equilibrium which is acute, episodic, chronic, or recurrent.
- Category B medical conditions shall include:
 - Congenital conditions and malformations,
 - Migraines,
 - Clinical disorders with paresis, paralysis, loss of coordination, abnormal motor function, or abnormalities of sensation,
 - history of Subdural, Subarachnoid, or Intra-Cerebral Hemorrhage,
 - Recent severe head contusion or concussion,
 - Any other neurological condition that results in an individual not being able to perform as a firefighter.

Endocrine and Metabolic

- Category A medical conditions shall include:
 - Uncontrolled diabetes mellitus.
- Category B medical conditions shall include:
 - Diseases of the adrenal gland, pituitary gland, parathyroid gland, or thyroid gland of clinical significance,
 - Nutritional deficiency disease or metabolic disorder,
 - Diabetes mellitus not covered in Category A,
 - Any other endocrine or metabolic condition that results in an individual not being able to perform as a firefighter.

Psychiatric

- Category A medical conditions shall include:
 - None.
- Category B medical conditions shall include:
 - A history of any psychiatric condition, behavior disorder, or substance abuse problem not covered in Category A. Such history shall be evaluated based on that individual's history, current status, prognosis, and ability to respond to the stressors of the job,
 - Any other psychiatric condition that results in an individual not being able to perform as a firefighter.



Conditions Not Otherwise Covered

- Category A medical conditions shall include:
 - None.
- Category B medical conditions shall include:
 - Connective tissue and autoimmune diseases, including dermatomyositis, lupus erythematosus, scleroderma, and rheumatoid arthritis,
 - History of heat stroke, frostbite, or other thermal injury,
 - Potentially transmissible infectious disease, including HIV and AIDS,
 - Any other systemic condition that results in an individual not being able to perform as a firefighter.

Chemicals, Drugs, and Medications

- Category A medical conditions shall include:
 - Active alcoholism or substance abuse.
- Category B medical conditions shall include the regular use of various chemicals and drugs, including -- but not limited to -- the following categories:
 - Anticoagulant agents,
 - Cardiovascular agents
 - Narcotics,
 - Sedative-hypnotics,
 - Stimulants,
 - Psychoactive agents,
 - Systemic steroids,
 - Any other chemical, drug, or medication that results in an individual not being able to perform as a firefighter.

Reference: NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments

To help fire departments ensure that personnel are medically capable of performing their required duties, the 2013 *NFPA 1582* incorporates current research and knowledge to present the latest provisions for a comprehensive occupational medical program. The *Standard* provides separate chapters for the medical evaluation of candidates/prospective employees and for the occupational medical and fitness evaluations for fire department members. Requirements are equated against the essential job tasks based on several NFPA® Professional Qualification Standards and apply to career, volunteer, private, industrial, governmental, and military fire departments.

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Guidance for Physician**

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