Medical Standards for Municipal Police Officers

(1) Medical Evaluation: Each municipal police department shall establish and implement a pre-placement medical evaluation process for candidates. During the medical evaluation, the physician shall evaluate each individual to ascertain the presence of any medical conditions listed in these standards, or any medical conditions not listed which would prevent the individual from performing the essential job functions without posing significant risk to the safety and health of him/herself or others. It is our intent to encourage the use of professional judgment regarding medical conditions that are not specifically listed.

The examining physician shall not certify as having met the medical requirements of these standards any candidate who is determined to have a Category A condition.

The examining physician shall not certify as having met the medical requirements of these standards any candidate who is determined to have a Category B condition that is of sufficient severity, either from the condition or the treatment, to prevent the candidate from performing the essential functions of a police officer without posing a significant risk to the safety and health of him/herself or others.

- (2) The medical evaluation shall minimally include the following:
 - a comprehensive medical history in addition to the medical history check-off list completed as Section E of the MA-HRD Medical Examination Form, to include significant past exposures, including, but not limited to, noise, blasts (concussive forces), indoor shooting range (lead), and any prior injuries, with particular attention to head injuries, any hospitalizations and surgeries and any medications used on a regular basis or repeatedly for any perceived medical condition (e.g.: over-the-counter allergy medications or over-the-counter pain medications).
 - 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
 - audiometry. Audiograms should be performed in a sound-treated booth compliant with the most recent version of ANSI S3.1 (<u>Criteria for permissible ambient noise during audiometric testing</u>) with equipment calibrated to the most recent version of ANSI standard S3.6 (<u>Specification for Audiometers</u>). If a booth is unavailable, the test room sound pressure levels should not exceed those specified in the Federal OSHA "Audiometric test rooms" standard (29 CFR 1910.95, Appendix D).
 - visual acuity, color vision and peripheral vision testing.
 - pulmonary function screening . Screening pulmonary function evaluation shall consist of spirometry with no use of short acting bronchodilator agents for 8 hours prior to testing. Testing should be performed in accordance with the most recent version of the American Thoracic Society "Standardization of Lung Function Testing." Screening spirometry should be administered by an individual both trained in the use of the spirometry instruments and experienced in performing the examinations.
 - a review of hepatitis B immunization status.

- a Purified Protein Derivative (PPD) test or interferon-gamma release assay (IGRA) for tuberculosis, and other diagnostic testing where indicated.
- basic mental status evaluation to include, at a minimum, the following¹:
 - general appearance (e.g.: kempt, disheveled), affect, state of alertness, orientation to place, person and time, comprehensibility in expression, insight, coherence of thought processes.
- (3) The medical evaluation process may also include:
 - a review of tetanus immunization status.
- (4) 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 candidate. The physician shall report the results of the medical evaluation to the candidate, including any medical condition(s) disclosed during the medical evaluation and the recommendation whether the candidate is medically certified to perform as a police officer. The physician shall inform the police department and HRD only whether or not the candidate is medically certified to perform as a police officer. The specific written consent of the candidate shall be required to release confidential medical information to the police department and HRD, following guidelines set forth under the Americans With Disabilities Act (ADA) and other relevant policies.
- (5) 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 functions of a municipal police officer, 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 police officer, or present a significant risk to the safety and health of that individual or others.

The following biological systems shall be components of the Initial Medical Standards for police officers:

I) Musculoskeletal

- 1) Head and Skull
 - A) Category A medical conditions shall include:
 - (i) uncorrected decompression craniectomy with residual defect larger than 1 square inch.
 - B) Category B medical conditions shall include:
 - (i) deformities of the skull, loss or congenital absence of the bony substance of the skull which limit the ability to wear a mask and/or protective breathing apparatus,
 - (ii) thoracic outlet syndrome sufficient to compromise required activity,
 - (iii) congenital cysts, chronic draining fistulas, or similar lesions,
 - (iv) any other head condition that results in an individual not being able to safely and effectively perform the job of police officer.
- 2) Neck and Cervical Spine
 - A) Category A medical conditions shall include:
 - (i) none.

¹ The initial examiner is encouraged to refer any applicant found to have an apparent abnormality in mental status evaluation to a doctoral level mental health professional (psychologist or psychiatrist) for further evaluation. Current or recent use of psychotropic medications shall be reviewed by a board-certified psychiatrist. Candidates with current or past psychiatric diagnoses in the domains noted in Section IV.(6)(o) must be referred to a board-certified psychiatrist, preferably one with experience evaluating individuals for safety-sensitive job positions, for final determination of appropriateness to function as a police officer or fire fighter.

- B) Category B medical conditions shall include:
 - (i) cervical arthrodesis/fusion,/instability,
 - (ii) cervical canal stenosis,
 - (iii) cervical radiculopathy or myelopathy,
 - (iv) herniated disc,
 - (v) degenerative disc disease,
 - (vi) abnormal chronic contraction of neck muscles,
 - (vii) decompression laminectomy,
 - (viii) any other neck condition that results in an individual not being able to safely and effectively perform the job of police officer.
- 3) Thoracic/lumbar/sacral Spine
 - A) Category A medical conditions shall include:
 - (i) symptomatic spondylolisthesis, whether or not surgically corrected.
 - B) Category B medical conditions shall include:
 - (i) lumbar laminectomy or discectomy, with or without fusion,
 - (ii) degenerative disease/spondylolysis/pars defect
 - (iii) structural abnormality, fracture, or dislocation,
 - (iv) degenerative disk disease,
 - (v) herniated disk/sciatica/radiculopathy,
 - (vi) spinal stenosis,
 - (vii) spinal surgery not covered in Category A,
 - (viii) any other spinal condition that results in an individual not being able to safety and effectively perform the job of police officer.
- 4) Extremities
 - A) Category A medical conditions shall include:
 - (i) hemipelvectomy,
 - (ii) hip disarticulation,
 - (iii) above-the-knee amputation,
 - (iv) lack of either hand,
 - (v) lack of either thumb proximal to the nail cuticle.
 - B) Category B medical conditions shall include:
 - (i) severe limitation of motion of a joint, fibrosis, or arthrodesis,
 - (ii) amputations not covered in Category A:
 - (a) whole or partial digit amputation other than the thumb,
 - (b) amputation of multiple digits,
 - (c) partial foot amputations including multiple toes on the same foot,
 - (d) transtibial amputation,
 - (e) any other amputation not covered in Category A.
 - (iii) total joint arthroplasty:
 - (a) shoulder,
 - (b) elbow,
 - (c) wrist,
 - (d) thumb, first, or second digit,
 - (e) hip,
 - (f) knee,
 - (g) ankle,
 - (iv) deformity or dislocation of a joint or limb,
 - (v) joint reconstruction, ligamentous instability, or joint replacement not covered in (iii),
 - (vi) chronic osteoarthritis or traumatic arthritis,
 - (vii) inflammatory arthritis,
 - (viii) osteomyelitis,
 - (ix) compressive neuropathies including carpal tunnel syndrome or ulnar nerve palsy,
 - (x) required use of stabilizing orthopedic braces,

(xi) any other extremity condition that results in an individual not being able to safety and effectively perform the job of police officer.

II) Eyes And Vision

The medical evaluation shall minimally include visual acuity (Snellen) and peripheral vision testing using a standardized testing device (Titmus or Optec Vision Screener or other similar vision screening device). Contact lenses are not permitted to meet the uncorrected standard.

X-chrom contact lens use is not permitted to meet the color standard.

When the candidate is being tested, he/she must present without wearing contact lenses for at least several hours, so that uncorrected vision can be accurately tested.

A) Category A medical conditions shall include:

- (i) Uncorrected distance vision worse than 20/100 in either eye.
- (ii) corrected distant vision worse than 20/20 in the better eye UNLESS the vision in the better eye alone is at least 20/25 AND the vision with both eyes together is 20/20 or better,
- (iii) Peripheral vision of less than 70 degrees temporally and 45 degrees nasally in either eye on screening examination AND/OR any history of conditions limiting field of vision will necessitate additional assessment by an eye care professional who will perform a formal detailed quantitative visual field assessment to determine if the binocular visual field is 140 degrees (at least 70 degrees temporally in each eye) above and below the meridian,
- (iv) Demonstration of color vision deficit on testing by Ishihara or Richmond pseudoisochromatic plates.
- (v) Candidates who demonstrate a color deficiency with Ishihara or Richmond testing may be retested with a Farnsworth D-15. Two or more major "cross-over" errors (defined as a sequence jump of 4 or more in the cap sequence created by the test subject) on the Farnsworth D-15 is a Category A condition.
- (vi) Vision (refraction) corrective surgery that has not stabilized in terms of diopter changes documented at least 2 weeks apart or if there is residual glare, halos, starburst, monocular diplopia, continued use of steroid drops, presence of haze on examination, microstriae, dryness affecting functional vision, active infection or loose epithelium.
- B) Category B medical conditions shall include:
 - diseases of the eye such as cataracts, retinal detachment, progressive retinopathy, glaucoma or optic neuritis, which, if present, and not severe enough to be disqualifying should be followed on a regular basis to ascertain continued adequate visual capability to safety and effectively perform the essential police duties,
 - (ii) any other ophthalmological surgical procedures, such as, but not limited to retinal detachment repair, periorbital muscle procedures,
 - (iii) any other vision disorder or eye condition that results in an individual not being able to safely and effectively perform the job of police officer.

III) Ears And Hearing

The medical evaluation shall minimally include audiograms performed in a sound-treated booth compliant with the most recent version of ANSI S3.1 (Criteria for permissible ambient noise during audiometric testing) with equipment calibrated to the most recent version of ANSI standard S3.6 (Specification for Audiometers). If a booth is unavailable, the test room sound pressure levels should not exceed those specified in the Federal OSHA "Audiometric test rooms" standard (29 CFR 1910.95, Appendix D).

A) Category A medical conditions shall include:

- (i) 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,
 - (a) Candidates failing the Category A pure tone threshold standard and who still wish to be considered for appointment will be required to have follow-up examinations that include:

- (b) full audiological examination, including speech reception threshold (SRT) and speech discrimination testing (NU-6 word lists) in both ears individually, AND full otological examination.
 - (1) In order to pass they must demonstrate:
 - (2) Pure tone thresholds in better ear indicating average hearing deficit 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.

HEARING AIDS: Initial hearing examinations must take place unaided.

Candidates who cannot pass the initial examination should be referred to a licensed audiologist for the followup examination. Candidates may use hearing aids for the follow-up examination. Candidates using hearing aids must pass the follow-up examination based on sound field-testing, using the criteria listed above.

B) Category B medical conditions shall include:

- (i) perforated tympanum,
- (ii) auditory canal atresia, severe stenosis, or tumor,
- (iii) severe external otitis,
- (iv) auricle severe agenesis or traumatic deformity,
- (v) mastoid severe mastoiditis or surgical deformity,
- (vi) Meniere's disease, labyrinthitis or any disorder of equilibrium,
- (vii) otitis media,
- (viii) any other hearing disorder or ear condition that results in an individual not being able to safely and effectively perform the job of police officer.

IV) Nose, Mouth, And Throat

A) Category A medical conditions shall include:

- (i) tracheostomy,
- (ii) aphonia,
- (iii) absent sense of smell,
- (iv) congenital or acquired deformities which interfere with wearing a gas mask.
- B) Category B medical conditions shall include:
 - (i) congenital or acquired deformities not covered in Category A,
 - (ii) defects of articulation that materially interfere with verbal communication,
 - (iii) defects of rate (stuttering, stammering, or cluttering) that interfere with verbal communication,
 - (iv) chronic severe rhinitis,
 - (v) 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 safely and effectively perform the job of police officer.

V) Respiratory

- A) Category A medical conditions shall include:
 - (i) current lung abscess or current empyema,
 - (ii) active untreated pulmonary tuberculosis,
 - (iii) current pneumothorax,
 - (iv) interstitial disease with abnormal exercise oxygen desaturation(<90%),
 - (v) obstructive pulmonary disease, meeting the following criteria:
 - (a) cough and low grade wheezing between exacerbations,
 - (b) FEV1/FVC < 0.7 AND FEV1 < 50% predicted at testing with spirometry performed as described in Section IV(2)(o)1,²
 - (c) required use of short-acting bronchodilatory medications prior to exercise.
- B) Category B medical conditions shall include:

I) ² 1 Vestbo J, Hurd SS, Agusti AG, et al. Global Strategy for the Diagnosis, Management and Prevention of Chronic Obstructive Pulmonary Disease, GOLD Executive Summary. Am J Respir Crit Care Med. 2012.

- (i) lobectomy or pneumonectomy,
- (ii) obstructive disease not meeting Category A criteria,
- (iii) chronic bronchitis,
- (iv) emphysema,
- (v) bronchiectasis,
- (vi) history of bronchiectasis, bronchitis, fibrous pleuritis, fibrosis, cystic disease, tuberculosis, mycotic lung disease, or pneumothorax,
- (vii) interstitial disease with normal exercise oxygen saturation,
- (viii) any other respiratory condition that results in an individual not being able to safely and effectively perform the job of police officer.

VI) Cardiovascular

A) Category A medical conditions shall include:

- (i) current diagnosis of angina pectoris,
- (ii) current congestive heart failure,
- (iii) ventricular aneurysm,
- (iv) acute or chronic pericarditis, endocarditis, or myocarditis. Endocarditis with resultant significant valvular lesions, or myocarditis leading to myocardial insufficiency,
- (v) cardiac or multi-organ transplant or left ventricular assist device or other mechanical aide to circulation,
- (vi) third degree AV block without cardiac pacemaker,
- (vii) coronary artery disease, cardiac hypertrophy, or other cardiac condition without evidence of a functional capacity equal to or greater than 12 METs without evidence of ischemia,
- (viii) recurrent syncope,
- (ix) history of sudden cardiac death syndrome,
- (x) hemodynamically significant valvular heart disease,
- (xi) Non-rheumatic atrial fibrillation with CHADS 2 score \geq 2 or CHA2DS2-VASc score \geq 1 not taking anticoagulant medication. (for persons taking anticoagulant medication, see section IV.(l)1.(c)),
- (xii) automatic implantable cardioverter defibrillator (AICD).

B) Category B medical conditions shall include:

- (i) coronary artery disease not covered in Category A,
- (ii) significant arrhythmias (either hemodynamically significant or in representing an elevated risk of hemodynamically compromising rhythm alteration),
- (iii) cardiac hypertrophy,
- (iv) history of myocardial infarction, coronary artery bypass, coronary angioplasty, stent placement, or atherectomy,
- (v) congenital abnormality,
- (vi) cardiac pacemaker,
- (vii) any other cardiac condition that results in an individual not being able to safely and effectively perform the job of police officer.

VII) Vascular System

- A) Category A medical conditions shall include:
 - (i) congenital or acquired lesions of the aorta and major vessels,
 - (ii) marked circulatory instability as indicated by orthostatic hypotension, persistent tachycardia, and severe peripheral vasomotor disturbances,
 - (iii) aneurysm of a major vessel, congenital or acquired,
 - (iv) untreated persistent hypertension (systolic blood pressure of 160 mmHg or greater or diastolic blood pressure of 100 mmHg or greater),
 - (v) current diagnosis of embolism or thrombophlebitis.
- B) Category B medical conditions shall include:
 - (i) persistent hypertension controlled through medication (systolic blood pressure less than 160 mmHg and diastolic blood pressure less than 100 mmHg),

- (ii) peripheral vascular disease, including intermittent claudication, Raynaud's disease, and Buerger's disease,
- (iii) recurrent thrombophlebitis,
- (iv) chronic lymphedema,
- (v) severe or symptomatic varicose veins or venous insufficiency,
- (vi) any other vascular condition that results in an individual not being able to safely and effectively perform the job of police officer.

VIII) Gastrointestinal

A) Category A medical conditions shall include:

- (i) liver or multi-organ transplantation,
- (ii) active gastrointestinal bleeding.
- B) Category B medical conditions shall include:
 - (i) cholecystitis,
 - (ii) gastritis,
 - (iii) chronic or acute hepatitis,
 - (iv) hernia,
 - (v) inflammatory bowel disease,
 - (vi) intestinal obstruction,
 - (vii) pancreatitis,
 - (viii) bowel resection,
 - (ix) gastrointestinal ulcer,
 - (x) cirrhosis,
 - (xi) diverticulitis,
 - (xii) any other gastrointestinal condition that results in an individual not being able to safely and effectively perform the job of police officer.

IX) Reproductive

- A) Category A medical conditions shall include:
 - (i) none.
- B) Category B medical conditions shall include:
 - (i) pregnancy, for its duration. Any candidate who is pregnant shall be evaluated based on the candidate's ability to perform as a police officer. Such evaluation shall be based in part on the timing of training and duties as related to pregnancy duration and postpartum recovery. Furthermore, a pregnant candidate shall be informed of the potential risks to her fetus in the performance of essential job functions, due to possible exposures to hazardous materials and physical contact,
 - (ii) any other reproductive condition that results in an individual not being able to safely and effectively perform the job of police officer.

X) Genitourinary

- A) Category A medical conditions shall include:
 - (i) renal disease requiring dialysis,
 - (ii) renal or multi-organ transplantation.
- B) Category B medical conditions shall include:
 - (i) any other renal, urinary, or genital condition that results in an individual not being able to safely and effectively perform the job of police officer.

XI) Neurological

- A) Category A medical conditions shall include:
 - (i) ataxia,
 - (ii) cerebrovascular disease with documented episodes of neurologic impairment such as cerebrovascular accidents (CVAs) and transient ischemic attacks (TIAs),
 - (iii) multiple sclerosis with activity or evidence of progression within previous three years,
 - (iv) muscular dystrophy,
 - (v) myesthenia gravis,
 - (vi) ALS,

- (vii) all epilepsy syndromes to include psychomotor, focal, petit mal, or grand mal seizures other than for those with all of the following:
 - (a) no seizure for 1 year off all anti-epileptic medications or 5 years on a constant dose of the same medication,
 - (b) normal CT and epilepsy protocol MRI of the brain,
 - (c) normal neurological examinations, and
 - (d) a definitive statement from a qualified neurologist specializing in seizure disorders (epileptologist) attesting to items i. through iii. above, and that the candidate is neurologically cleared for police academy training and the performance of a police officer's essential job functions.
- (viii) single first-time unprovoked seizure or unexplained episode of loss of consciousness less than 6 months prior to evaluation,
- (ix) choreoathetosis,
- (x) dementia,
- (xi) any disorder affecting equilibrium which is acute, episodic, chronic, or recurrent.
- B) Category B medical conditions shall include:
 - (i) congenital conditions and malformations,
 - (ii) migraines,
 - (iii) clinical disorders with paresis, paralysis, loss of coordination, abnormal motor function, or abnormalities of sensation,
 - (iv) history of subdural, subarachnoid, or intracerebral hemorrhage,
 - (v) traumatic brain injury, concussion or multiple incidents of head trauma,
 - (vi) any other neurological condition that results in an individual not being able to safely and effectively perform the job of police officer.

XII) Skin

- A) Category A medical conditions shall include:
 - (i) none.
- B) Category B medical conditions shall include:
 - (i) non-localized, i.e., widespread, skin disease,
 - (ii) extensive skin grafts,
 - (iii) contact allergies,
 - (iv) any other dermatologic condition that results in an individual not being able to safely and effectively perform the job of police officer.

XIII) Hematopoietic and Lymphatic

- A) Category A medical conditions shall include:
 - (i) hemorrhagic states requiring replacement therapy, including hemophilia,
 - (ii) sickle cell disease (homozygous),
 - (iii) chronic anticoagulation therapy.
- B) Category B medical conditions shall include:
 - (i) anemia, leukopenia, or thrombocythemia,
 - (ii) polycythemia vera,
 - (iii) splenomegaly,
 - (iv) history of thromboembolic disease,
 - (v) any other hematological condition that results in an individual not being able to safely and effectively perform the job of police officer.

XIV) Endocrine And Metabolic

- A) Category A medical conditions shall include:
 - (i) uncontrolled diabetes mellitus,
 - (ii) insulin dependent diabetes not controlled by the use of a pump or basal/bolus techniques,
 - (iii) insulin dependent diabetes not meeting criteria described in Appendix A.
- B) Category B medical conditions shall include:
 - (i) Diabetes mellitus,

- (a) Note: Any patient with diabetes is required to provide medical information indicating that they meet the requirements described in Appendix A.
- (ii) diseases of the adrenal gland, pituitary gland, parathyroid gland, or thyroid gland of clinical significance,
- (iii) nutritional deficiency disease or metabolic disorder,
- (iv) any other endocrine or metabolic condition that results in an individual not being able to safely and effectively perform the job of police officer.

XV) Tumors and Malignant Disease

A) Category A medical conditions shall include:

(i) none.

- B) Category B medical conditions shall include:
 - (i) malignant disease which is newly diagnosed, untreated, or currently being treated. The medical evaluation of any candidate 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.
 - (ii) any other tumor or malignancy that results in an individual not being able to safely and effectively perform the job of police officer.

XVI) Psychiatric

- A) Category A medical conditions include current or past diagnoses of:
 - (i) disorders of behavior,
 - (ii) anxiety disorders,
 - (iii) disorders of thought,
 - (iv) disorders of mood,
 - (v) disorders of personality.
- B) Category B medical conditions shall include:
 - (i) 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,
 - (ii) any other psychiatric condition that results in an individual not being able to safely and effectively perform the job of police officer.

XVII) Conditions Not Otherwise Covered

- A) Category A medical conditions shall include:
 - (i) none.
- B) Category B medical conditions shall include:
 - (i) connective tissue and autoimmune diseases, including dermatomyositis, lupus erythematosis, scleroderma, and rheumatoid arthritis,
 - (ii) history of heat stroke, frostbite, or other thermal injury,
 - (iii) potentially transmissible infectious disease,
 - (iv) sleep disorders such as obstructive sleep apnea, central sleep apnea and narcolepsy,
 - (v) multi-system degenerative disorders,
 - (vi) any other systemic condition that results in an individual not being able to safely and effectively perform the job of police officer.

XVIII) Chemicals, Drugs, And Medications

A) Category A medical conditions shall include:

- (i) active alcoholism or substance abuse.
- B) Category B medical conditions shall include the regular use of various chemicals and drugs, including -- but not limited to -- the following categories:
 - (i) cardiovascular agents,
 - (ii) narcotics,
 - (iii) sedative-hypnotics,
 - (iv) stimulants,
 - (v) psychoactive agents,

- (vi) systemic steroids,
- (vii) any other chemical, drug, or medication that results in an individual not being able to safely and effectively perform the job of police officer.

Appendix A: Diabetes Mellitus

Commonwealth of Massachusetts

A candidate with Diabetes Mellitus (diabetes) must comply with the requirements described below. At their own expense, the candidate or officer must submit medical information from their treating medical provider responsive to these criteria, including actual medical data which can be reviewed by the Police Physician. These criteria apply to all cases of diabetes, independent of whether insulin is required or not. The requirements pertaining explicitly to insulin do not apply to individuals whose diabetes is being managed without insulin.

The medical information must cover the following:

- 1. Care: The individual is under the care of an endocrinologist or other physician knowledgeable about diabetes management. Outpatient and in-patient medical record(s) of the last three years or since date of diagnosis (whichever is shorter) should be reviewed by the treating physician and provided to the Police Physician.
- 2. Treatment: The method of treatment of diabetes
 - A. If the individual has type 1 diabetes, the individual has been on a basal/bolus regimen or an insulin pump using analogue insulins for the six (6) months prior to evaluation.
 - If the individual uses an insulin pump, documentation is needed as follows:
 - 1. proper understanding and education in the use of the insulin pump
 - 2. start date for the use of the pump
 - 3. history of insulin site infections
 - 4. history of pump cessation and pump malfunction
 - 5. backup plan for pump malfunction including use of injectable insulin
 - 6. frequency of infusion set changes
 - B. If has type 2 diabetes on insulin, the individual has been on a stable medication regimen for the three (3)months prior to evaluation.
 - C. If on oral agents alone, the individual has been on a stable medication regimen for the month prior to evaluation.
- 3. Education: The individual has been educated in diabetes and its management and thoroughly informed of and understands the procedures that must be followed to monitor and manage his/her diabetes and what procedures should be followed if complications arise.
- 4. Quantitative Glucose Monitoring
 - A. The individual has documentation of ongoing self-monitoring of blood glucose.
 - B. This must be done with a glucose meter that stores every reading, records date and time of reading and from which data can be downloaded.
 - C. Monitoring logs must be available covering the time period (1, 3 or 6 months) described in sections 2.A.
 - D. The frequency of glucose monitoring must follow a schedule acceptable to the Police Physician in consultation with the treating physician.
 - E. Has had hemoglobin A1C measured at least four times a year (intervals of two to three months) over the last 12 months prior to evaluation if diagnosis has been present over a year. If hemoglobin A1C >8%, this may signal a problem with diabetes management that warrants further assessment.

- 5. Incapacitating events
 - A. Has not had any episodes within the past one (1) year,

and

B. no more than two (2) episodes in the past three (3) years,

or

- C. since diagnosis of diabetes (if less than one year) has not had any episodes of:
 - 1. severe hypoglycemia (loss of consciousness, seizures or coma, requiring the assistance of others or needing urgent treatment [glucagon injection/IV glucose]) or
 - 2. blood sugar < 60 mg/dl with unawareness demonstrated in current glucose logs.
- 6. Chronic complication screening: Chronic complications of diabetes are associated with increased risk for severe hypoglycemic episodes and warrant further assessment. The components of screening for chronic complications are:
 - A. complete eye exam by a qualified ophthalmologist or optometrist, including a dilated retinal exam, demonstrating no more than mild background diabetic retinopathy.
 - B. Normal vibratory testing with a 128 Hz tuning fork, has normal testing with 10 gram Semmes- Weinstein monofilament and normal orthostatic blood pressure and pulse testing.
 - C. Normal cardiac physical exam. Cardiac stress testing to at least 12 METS is recommended and should begin based on either the criteria of the American Heart Association / American College of Cardiology or those of the American Diabetes Association. Individuals with diabetes who have a normal cardiac stress test will be retested every one to three years based on individual clinical assessment. This assessment should consider:
 - the age of the individual
 - the number and persistence of CAD risk factors
 - the severity of CAD risk factors
 - D. Microalbumin/creatinine ratio <30:1, measured or calculated creatinine clearance > 60 ml/min.
- 7. Ongoing evaluation and requirements:
 - A. Should have medical records and glucose meter logs reviewed periodically. Because of the nature of diabetes it is important that regular medical follow up be provided to the individual. The frequency and content of the evaluation should be determined on an individual basis by the Police Physician in consultation with the treating physician.
 - B. Must advise Police Physician of any change in type of medication.
 - C. Must advise Police Physician of any episodes of significant hypoglycemia or hyperglycemia (ketoacidosis, hyperosmolar hyperglycemic nonketotic state).
 - D. Must provide documentation of ongoing evaluation of cardiac, ophthalmological, neurological and/or renal status. [see sections above]

The diabetes requirements above are adopted from the National Consensus Guideline for the Medical Evaluation of Law Enforcement Officers (2007), issued by the American College of Occupational and Environmental Medicine in consultation with the American Diabetes Association. The full document (soon to be available from ACOEM.org) should be consulted for additional details regarding recommended evaluation and monitoring. <u>www.acoem.org</u>.