I. WHAT IS NEW AT NFPA 1582

a. Chapter 5 – All essential job tasks are with protective ensemble and SCBA when appropriate

b. Prohibitions against hearing aids also include cochlear implants

c. Added OSA if unresponsive to treatment as a Category B, and also for incumbents. The Appendix will suggest checking compliance of CPAP use and echo to check for RV dysfunction

d. New Fitness Criteria:
   i. Category A – aerobic capacity less than 12 METS (42 ml/kg/min O2)
   ii. For incumbents – 8-12 METS advised to get fit, < 8 METS fitness program required and restrictions imposed.

e. Uncontrolled hypertension will be a Category A for candidates

f. New section on pregnancy – pretty much a clone of the ACOEM LEO chapter.

g. Spinal fusion changed from Category A to B and allowed for incumbents.

h. Total joint prostheses will be allowed

i. Certain unilateral BKA’s will be allowed, still not for AKA’s or upper extremity prostheses.
Update on Prosthetics for Law Enforcement Officers

The well-managed and motivated amputee may be capable of safe and effective job performance as a law enforcement officer (LEO). However, an amputated or impaired limb may affect most aspects of a law enforcement officer essential job functions, including the ability to tolerate extremes in the physical work environment, physical performance, extended work schedule and weapons/defensive tactics.

• For an amputee who does not utilize a prosthesis, the evaluation is based on the amputee’s ability to do the job functions without prosthesis.

• For an amputee that uses a prosthesis, the evaluation should be based on the LEO’s ability to do the job functions while wearing their prosthesis, the type, age and condition of the prosthesis, the length of time the amputee has used a prosthesis, and the risk of incapacitation due inability to wear the prosthesis (such as poor fit, chronic residual limb complications, neuropathic pain, etc).

• Any LEO with an upper extremity or lower extremity amputation should undergo further evaluation. Prior to release to unrestricted duty, successful completion of routine training exercises as required by the department should be documented. For a minimal level of amputation, the police physician may be able to release the amputee to unrestricted duty without completion of routine training exercises.

Upper extremity amputees

It is the consensus of the task force that almost all upper extremity amputees who utilize prosthesis will be unable to generate the various grips and forces required in the complex work environment of a LEO. They will require work restrictions and accommodations.

Lower extremity amputees

It is the consensus of the task force that lower extremity amputees with partial foot amputations or uncomplicated unilateral below knee amputations will likely be able to perform essential job functions and therefore be released to unrestricted duties. Other types/levels of lower extremity amputation (including bilateral lower extremity amputation) will require work restrictions and accommodations.

Background


• There are currently 1.9 million people with limb loss living in the US.
• The main causes of limb loss are dysvascular disease (54%), trauma (45%) and cancer (less than 2%).
• Diabetes and vascular disease are the leading causes of limb loss and major drivers of increased limb loss incidence in the U.S.
• Less than half of those who experience amputation return to work. For those who return to work, the average time to return is approximately 14 months (Livingston DH, et. al. Extent of Disability Following Traumatic Extremity Amputation." *Journal of Trauma*: 1994;37(3):495-99.).

Considerations for Police Physician

There are anecdotal reports of incumbent LEOs/Firefighters/US military returning to work after limb loss. This appears to be limited to unilateral below knee amputees.

Existing task-based assessments that allow an amputee to be certified for certain occupations (FMCSA, USCG, FAA) do not easily translate to the complexity of a LEO’s essential job tasks (Hill JJ 3rd, et al. Certifying fitness for duty in high functioning amputees. *PMR* 2011: 3(12):1126-33)

There is no agreed upon standard physical examination or assessment when evaluating an amputee. The following list highlights specific findings that should be documented by the police physician and/or the physician with qualifications in the medical care of amputees.

- ROM of remaining joints (related to proper fit of prosthesis)
- Limb length (marker of ability to achieve acceptable fit)
- Stump health (pressure ulcers over bony prominences, verrucose hyperplagia is the presence of wart-like lesions on the end of residual limb due to proximal “choking” of residual limb by ill-fitting prosthesis, Chronic cellulitis, folliculitis, fungal infections should be noted. The presence of epidermoid cysts and/or neuromas should be documented. Phantom pain (Poorly controlled phantom pain and/or presence of symptomatic neuromas affected fit and wear time of the prosthesis and are likely disqualifying conditions. Documentation by the treating physician is required for medications for treatment of phantom pain)
- Gait (it is up to the local agency to determine if a LEO is required to meet the a standard for gait (i.e. visible limb). Amputee providers use gait to assess proper fit and alignment of prosthetic components and many gait deviations can be addressed by adjustments to the prosthesis.)

The LEO should obtain documentation from his/her prosthetist about adequate design specifics of the prosthesis including ability of the suspension system to remain in place when rapidly ascending/descending stairs, running short distances, walking on uneven surfaces, use of ladders, and prosthetic tolerance to inclement weather. The LEO should be advised that they may need to obtain an extra silicon liner/suspension system as the possibility of 12 and 24 hours shifts does not allow for adequate washing and drying of silicon sleeve. Prosthetic adjustments may need to be made to accommodate regulation footwear, particularly footwear with a substantial heel. If there is a concern about prosthetic dislodgement, the LEO can consider a redundant suspension system as an additional safeguard (example: locking liner with suspension sleeve). Anticipated maintenance schedule, need for external power supply, and estimated battery life for powered components should also be documented by the prosthetist.
Upper extremity amputation levels (Medscape Reference)
Lower extremity amputation levels (Medscape Reference)
Hemipelvectomy

Hip disarticulation

Very short above knee

Short above knee

Medium above knee

Long above knee

Knee disarticulation

Short below knee

Standard below knee

Chopart

Lisfranc

Transmetatarsal

Symes

Hindfoot, such as Boyd

Toe disarticulation or amputation