



Definition

Rehabilitation – An area outside the fire ground perimeter where crews can go for rest, nourishment, comfort, and medical evaluation.

NFPA 1584 A. 6.2.6 – Medical monitoring is the process of monitoring members who are at risk of suffering adverse health or safety effects. Vital sign measurements must be interpreted in context of the overall appearance and health status of the member. The fire department physician or appropriate medical authority should establish medical protocols and procedures with parameters regarding the following:

- (1) Immediate transport to an emergency medical facility
- (2) Close monitoring and treatment in rehabilitation
- (3) Release from rehabilitation

Currently, there are no studies that quantify vital sign measurements with the length of rehabilitation or with the need to direct members to a treatment area. Visual signs and symptoms remain the best method to evaluate members in the rehabilitation area. Vital sign measurements can be used as a baseline and can assist to identify other health or safety concerns.

Purpose

The purpose of this SOG is to assure that the personnel on scene do not deteriorate to a point that affects the safety of each member or that jeopardizes the safety and integrity of the operation.

Reference

Polk County Fire Chief's Association – Identification of Rehab Procedure – Adopted: September 2018

Guidelines

This procedure shall apply to emergency operations and training exercises of extended duration where strenuous physical activity or exposure to extreme heat or cold exists. Since individual departments may have specific policies for on-the job injuries or sending personnel to medical facilities for follow-up, the Incident Commander should make notification to the Chief of the department regarding any transport of personnel or removal of personnel from active firefighting duty due to health concerns raised during medical monitoring in rehab.

Establishing Rehab

Shall commence whenever emergency operations or training exercises pose a safety or health risk to members

1. Designated area by IC or EMS crew / officer
2. Heat stress index >90°F or wind-chill index <10°F
3. Characteristics for site location of Rehab:
 - a. Sufficient distance from the effects of the operation so that members can safely remove their PPE and can be afforded physical and mental rest.
 - b. Greater than 50 ft. from Command Post
 - c. Able to remove PPE prior to entering rehab
 - d. Provide protection from environmental conditions
 - i. Site: open area using tarps, fans, heaters, buses, apparatus
 - ii. Hot environment: shaded area or air-conditioning and a place to sit.
 - iii. Cold environment: provide dry protected areas out of wind, heated areas, and a place to sit.
 - e. Free of exhaust fumes from apparatus, vehicles, or equipment
 - f. Large enough for multiple crews and rehab personnel.
 - g. Easy access to :
 - i. EMS transport
 - ii. SCBA fill station



4. Shall include Medical monitoring and treatment.
5. Procure Fire Department personnel emergency information binder.

Personnel

1. Level of EMT certification: EMT minimum
2. Level of Staffing
 - a. I – Minimal hydration needed for training and extended extrications - Minimum one EMS unit / crew. Consider additional resources depending on number of participants
 - b. II – Structure fire, hazmat incident, emergency scene with PPE / hazardous atmosphere – Minimum of one EMS units / crew. Consider additional resources depending on number of Fire and EMS personnel on scene, workload and weather conditions

Rehab Resources:

- Fluids – H₂O, activity beverage (electrolyte replacement) and ice
- Food – high energy bars, crackers, soup, broth, stew, oranges, bananas
- Medical Equipment - BP cuffs, stethoscopes, thermometers, RAD 57, cardiac monitor, IV fluids, transport unit(s)
- Other Equipment - Rehab cards, sharpies, coolers, blankets, towels, wipes, tarps, fans, traffic cones, barricade tape, (other items as City specific)

Rehab Implementation

1. Crews shall be rotated as necessary to allow for rehabilitation.
2. A 20 minute rehab time will be used for a firefighter:
 - a. After use of second 30 minute SCBA cylinder
 - b. After a **single** 45 minute or 60 minute SCBA cylinder
 - c. After 40 minutes of intense work without SCBA
3. Times may be adjusted by an Officer or Rehab supervisor. Officers should re-evaluate their crews every 45 minutes.

Rehab Guidelines

- Accountability: All members entering / leaving rehab shall be assigned by IC and tracked through the system.
- Hydration:
 - 1 quart H₂O / hour
 - During heat stress 50/50 mixture of H₂O and activity beverage to replace electrolytes
 - No caffeine or carbonated beverages
- Nourishment:
 - Food for extended incidents (≥ 3 hours) for caloric replacement
 - Soup, broth, stew, apples, oranges, bananas, or granola bars, power bars
 - No salty or fatty foods
- Active cooling: hand and forearm immersion, misting fans, ice vests
- Passive cooling: remove PPE, move to cool environment, cool wet towels



- Warming: Add clothing, wrap themselves in blankets or use other methods to regain normal body temperature.
- Medical monitoring - Ongoing evaluation of members who are at risk of suffering adverse effects from stress or from exposure to heat, cold, or hazardous environment.

Vital Signs: Repeat every 15 minutes

- BP:
 - Diastolic >100
 - No S/S = observe extra 15 minutes
 - Re-hydrate / rest / recheck
 - S/S = consider transport
 - After 30 minutes still > 100, removed from active duty
 - Diastolic >160
 - Re-hydrate / rest 30 minutes / recheck
 - After 30 minutes still >100 = transport
- Pulse:
 - HR ≥ 100 beat per minute
 - Hydrate / rest 15 minutes / recheck
 - Still ≥ 100 bpm
 - Rest additional 15 minutes
 - If after 30 min still above 100 bpm remove from active firefighting duty
- Temp:
 - > 101° F (Normal temp 98.6° f – 100.6°F)
 - Remove protective clothing and cool until < 100 ° F
 - After rest / cooling period still > 101° F with S/S = consider transport
- CO Level:
 - Dependent upon signs and symptoms.
 - If signs or symptoms present transport.
 - OR if CO level is 12% or > follow the Hampson SpCO Triage Algorithm. (Chart in RAD 57) 0-5 for non-smokers and 5-10 for smokers

Symptomatic members or members with abnormal findings shall receive additional monitoring during rehab.

Documentation

- Rehab time in and out must be documented.
- Track all vitals and times on the tracking cards.
- Transfer tracking card information to the chart after the call or on scene if time allows.
- If emergency medical care is provided – a medical report shall be generated and a copy placed in the employee's health records.



Reassignment

- When released by the rehab supervisor.
- Rehab supervisor has the authority to keep members in rehab or transport them for further medical evaluation or treatment, **regardless of rank (if warranted)**.
- Members shall not return to operations:
 - If he/she does not feel adequately rested
 - If the rehab supervisor sees evidence of medical, psychological, or emotional distress
 - If the member appears otherwise unable to safely perform his/her duties
- Members treated for heat-related illnesses shall be removed from duties
- If one or more crew members is seriously injured or killed during an incident, all members of the crew shall be removed from the emergency responsibilities at the incident as soon as possible.

*** Emergency information form for all Fire Department personnel shall be present at the fire scene. ***
