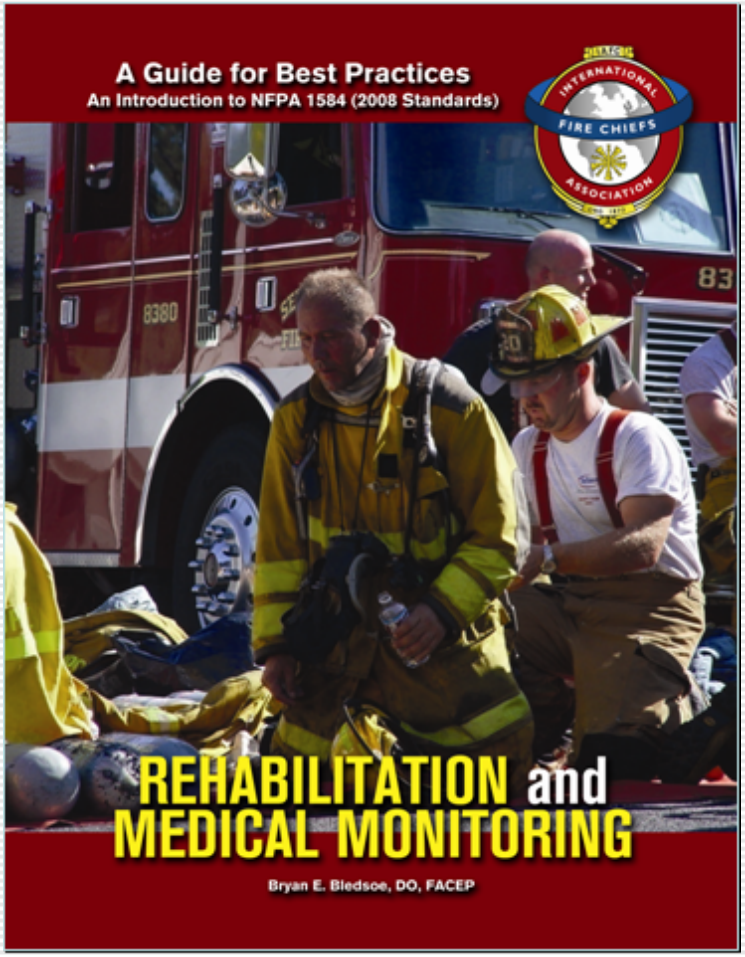
Firefighter Rehab:

An Introduction to NFPA 1584

Rehabilitation Practices and Medical Monitoring

Overview



- This program is designed to accompany the textbook *Rehabilitation and Medical Monitoring: An Introduction to NFPA 1584 (2008 Standards)*.

Overview

- This program was developed through the EMS Section of the International Association of Fire Chiefs (IAFC).
- The IAFC is not responsible for the selection of the authors nor the views and opinions expressed by the authors.

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INTRODUCTION

MEDICAL MONITORING

Medical Monitoring

- Medical Monitoring: Ongoing evaluation of members who are at risk of suffering adverse effects from stress or from exposure to heat, cold, or hazardous environments.

Medical Monitoring

- Recovery: The process of returning a member's physiological and psychological states to normal or neutral where the person is able to perform additional emergency tasks without any adverse effects.

Medical Monitoring

- Emergency Medical Care: Treatment or stabilization of an emergency condition (possibly including ambulance transport).

TEMPERATURE REGULATION

MEDICAL MONITORING

Medical Monitoring

- Humans must maintain their body temperature within a relatively narrow range.
- Normal temp is 98.6°F (37.0°C) although there is some variation between individuals.

Medical Monitoring

- The core temperature is the temperature deep within the body (usually in a great vessel such as the pulmonary artery or vena cava).
- The core temperature is a more accurate measure of body temperature.

Medical Monitoring

- For healthy individuals, when blood flow is good, an oral temperature is usually an accurate reflection of the core temperature.

Medical Monitoring

- For abnormal states (hypothermia, hyperthermia) blood flow through the body may be impaired rendering oral temperature readings unreliable and erroneous.
- In these situations, a rectal reading is preferred.

Medical Monitoring

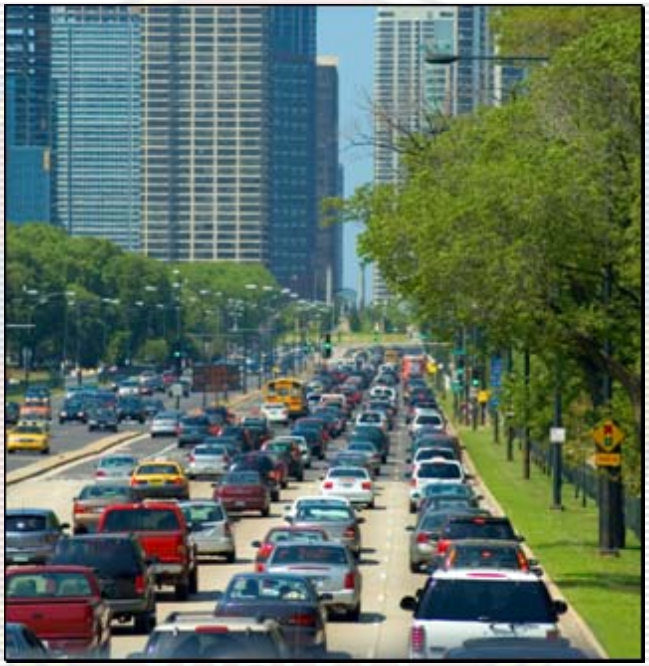
- Environmental extremes, especially heat waves, are common.
- Heat wave deaths outnumber all other types of weather-related emergencies.

Medical Monitoring

- Heat stress is a major occupational hazard for firefighters.
- Heat stress is the development of ill-effects or injury secondary to exposure to hot temperatures.

Medical Monitoring

- The more uncommon the environmental emergency for a community, the more likely it will be problematic.
- 1995 5-day Chicago heat wave killed over 600 people.



Medical Monitoring

- The core temperature is a function of:

Core Temp = Thermogenesis - Thermolysis

Thermogenesis = Heat Generation

Thermolysis = Heat Loss

Medical Monitoring

- Heat-generating mechanisms:
  - Metabolic (biochemical) activity
  - Muscles at work
  - Shivering

Medical Monitoring

- Firefighting can be physically intense.
- The core temperature will quickly rise triggering temperature control centers in the brain:
  - Increased respirations
  - Shunting of blood to the skin
  - Sweating

Medical Monitoring

- Sweating:
  - When sweat glands are activated, the first secrete a fluid called the primary secretion.
    - Similar to plasma
    - High sodium and chloride
    - Low potassium
  - The water evaporates and cools the body.
  - During low-sweat states the sweat glands slowly reabsorb the electrolytes.

Medical Monitoring

- During high-sweat states, such as active firefighting, the sweat glands do not have time to reabsorb lost electrolytes.
- The electrolytes are lost from the body.

Medical Monitoring

- In hot environments, the difference between an individual's core temperature and the environmental temperature is relatively small (low thermal gradient).
- The smaller the thermal gradient, the more difficult it is to cool.

Medical Monitoring

- A firefighter with a core temp of 101°F (38.3°C) will cool more effectively when the environmental temperature is 50°F (10°C) compared to an environmental temperature of 95°F (35°C).
- Heat must flow from the firefighter to the environment.

Medical Monitoring

- Cooling can be accomplished two ways:
  - Passive cooling: Facilitating the body's cooling mechanisms, such as removing clothing, moving the subject to a cooler environment, and removing the subject from direct sunlight.
  - Active cooling: Using external methods or devices (e.g., hand and forearm immersion, misting fan, cold towels) to reduce the elevated body temperature.

Medical Monitoring

- Active cooling is generally preferred because it more quickly lowers the core temp while minimizing the possibility of heat stress.

Medical Monitoring

- Forearm immersion:
  - Effective cooling mechanism.
  - Increased blood flow to the forearms and hands facilitate heat transfer to the cold water.
  - More effective than misting fans in humid environments.

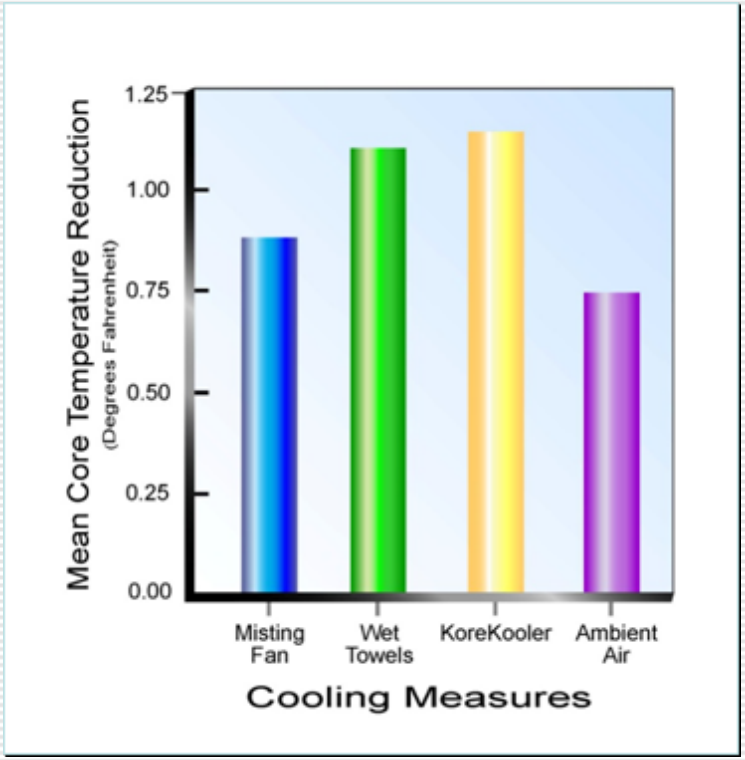
Medical Monitoring

- Wet towels:
  - As effective as forearm immersion.
  - Sometimes more practical and less expensive.

Medical Monitoring

- Misting fans:
  - Effective in dry environments (the drier, the more effective is cooling).
  - In humid environments (where evaporation is slowed), water can remain on skin possibly leading to steam burns when the member returns to firefighting.

Medical Monitoring



- Often, a combination of techniques is used on the fire ground to prevent heat stress.

Espinoza M, Contreras M. “Safety and performance implications of hydration, core body temperature, and post-incident rehabilitation.” *Orange County Fire Authority (CA)*. December, 2007

Medical Monitoring

- When entering rehab on warm days:
  - Remove protective clothing
  - Drink plenty of fluids
  - Cooling should be started as soon as possible:
    - Passive cooling initially
    - For severe conditions, switch to active cooling immediately.

Medical Monitoring

- During active cooling:
  - Be careful not to overcool a member as shivering may start which will cause body temperature to again rise.
  - When body temperature reaches 1-2°F above normal, switch to passive cooling to prevent overcooling the member.

Medical Monitoring

- Personnel should not be released from rehab until core temperature is normal.

Best Practices in Rehab

ACTIVE COOLING

Wet or cold towels provide active cooling through conduction and evaporation. Conductive cooling occurs when the skin comes in contact with a cooler object. Conductive cooling is effective in all environments. Ice water and cold towels are inexpensive and can cool multiple members at the same time. Wet, cold towels are generally more comfortable for members.

Medical Monitoring

- A fire department must respond even when members are too hot.
- Activities can be modified to avoid heat stress.
- The key is using the rehab process and active cooling.
- Members should be reminded about heat stress when the Heat Index or Humidex exceeds 95°- 102°F (35° - 39°C).

Medical Monitoring

- In cold environments, personnel are at increased risk of losing heat to the environment.

Medical Monitoring

- When the core temp falls below normal, hypothermia can develop.
- The greater the thermal gradient, the greater will be the subsequent heat loss.
- Exposure to water during firefighting can hasten cooling and worsen the situation.

Medical Monitoring

- Hypothermia:
  - Core temp <95°F (35°C).
  - Pose a significant risk to members.

Medical Monitoring

- Warming can be accomplished two ways:
  - Passive warming: Application of measures (e.g., removal of wet clothing, use of blankets or additional clothing, or movement to a warmer environment) that slow heat loss to the environment.
  - Active warming: The actual application of heat to a victim (e.g., heat packs, warming blankets, warmed IV fluids). Heat is transferred from the heat source to the victim.

Medical Monitoring

- Both passive and active warming should be used as needed on the fire ground.
- Only warm the member until the core temperature returns to normal—avoid overshoot an hyperthermia.
- When body temperature reaches 1-2°F below normal, switch to passive warming to prevent over warming the member.

FLUIDS & ELECTROLYTES

MEDICAL MONITORING

Medical Monitoring

- The importance of adequate hydration and nutrition on the fire ground cannot be overemphasized.

Medical Monitoring

- Because of the heat and protective clothing, firefighters can rapidly lose large amounts of fluids through sweat and breathing.
- All firefighters should begin work properly hydrated.

Medical Monitoring

- Members entering rehab should consume enough fluids to satisfy thirst.
- Rehydration should continue post-incident as it may take more time and fluids than initially thought to restore proper hydration.

Medical Monitoring

- Electrolyte maintenance:
  - Extremely important:
    - Sodium
    - Potassium
    - Chloride
    - Magnesium
    - Phosphate
  - Sweating depletes sodium.
  - Exertion can deplete potassium.

Medical Monitoring

- Electrolyte abnormalities are more common when:
  - Incidents > 3 hours.
  - Incidents where personnel are likely to be working for > 1 hour.
- Important to replace electrolytes in addition to water in these situations.

Medical Monitoring

- Monitoring hydration:
  - Dehydration:
    - Mild (loss of < 5% body weight).
    - Moderate (loss of 5-10% body weight).
    - Severe (loss of > 10% body weight).

Medical Monitoring

Signs and Symptoms of Dehydration	
% Weight Lost	Signs and Symptoms
1%	Increased thirst
2%	Loss of appetite, dry skin, dark urine, fatigue, dry mouth
3%	Increased heart rate
4-5%	Decreased work capacity by up to 30%
5%	Increased respiration, nausea, increased sweating, decreased urine output, markedly increased fatigue, muscle cramps, headache
10%	Muscle spasms, markedly elevated pulse rate, vomiting, dim vision, confusion, altered mental status

Medical Monitoring

- Monitoring hydration:
  - Firefighters can lose 32 ounces (1 Liter) of fluid in less than 20 minutes of strenuous firefighting.
  - Sweating will continue after the firefighter stops work.

Medical Monitoring

- Monitoring hydration:
  - Dehydration interferes with the body's ability to maintain core temp.
  - Dehydration lessens strength and shortens endurance.
  - Dehydration causes nausea and vomiting making it difficult to orally hydrate.

Medical Monitoring

- A 15% reduction in plasma volume and a 40% reduction in stroke volume has been reported following less than 20 minutes of intense firefighting activity.

Medical Monitoring

- There are no practical means for precisely determining hydration status at an incident scene.
- Field assessment can include:
  - Body weight measurement
  - Urine dip
  - Saliva osmolarity (in development).

Medical Monitoring

- Problems with body weight:
  - Serial measurements required.
  - Minimal clothing worn.
  - Time consuming.

Medical Monitoring

- The amount of fluid an exhausted, warm and dehydrated firefighter can take orally is about 32 ounces (1 liter) per hour.
- This is due to a delayed gastric emptying time from an overloaded GI system.

Medical Monitoring

- Overhydration should be avoided as well.
- Overhydration can cause:
  - Hyponatremia (a relative decrease in sodium stores in the body due to excessive water).
  - Hyponatremia can cause:
    - Altered mental status
    - Seizures
    - Nausea
    - Vomiting

Medical Monitoring

- Urine testing:
  - Color charts required (or machine).
  - Requires collection, measurement and disposal (biohazard).
  - Can be placed in station bathrooms for post-incident hydration monitoring.

Best Practices in Rehab

MONITORING HYDRATION STATUS

The National Collegiate Athletic Association (NCAA) use urine specific gravity measurements to monitor hydration in athletes. A urine specific gravity ≤ 1.020 are considered to be adequately hydrated. A urine specific gravity >1.020 are considered dehydrated. The appearance of ketones (a product of lipid metabolism) indicates problems with nutrition and hydration.

CALORIES

MEDICAL MONITORING

Medical Monitoring

- A large amount of energy is consumed during heat or cold stress.
- Energy is usually measured in calories.
- When calorie stores are depleted, they must be replaced for the body to continue to function optimally.

Medical Monitoring

- Calorie sources:
  - Carbohydrates
  - Proteins
  - Lipids (fats)
- During high-stress states, virtually all calories are derived from carbohydrate sources.

Nutrition Facts

Serving Size
Servings Per Container

Amount Per Serving	
Calories	
Calories From Fat	
	% Daily
Total Fat	4.5g
Saturated Fat	1.5g
Trans Fat	0g
Cholesterol	30mg
Sodium	1260mg
Total Carbohydrate	48g
Dietary Fiber	3g
Sugars	16g
Protein	14g

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg

Vitamin A
Vitamin C
Calcium
Iron

Medical Monitoring

Beverages and Substances to Avoid
Carbonated sodas, high-fructose or high sugar drinks (>7% carbohydrates)
Foods with high-protein/high-fat content
Alcohol within 8 hours prior to duty
Excessive fluids (overhydration)
Caffeine†
Creatine‡
Ephedrine
Tobacco

†-While caffeine is not recommended, its use in society is so prevalent that caffeine users will develop headaches and other symptoms if caffeine is not provided. Also, there is little evidence that caffeine alters hydration status.
‡-While there is no role for creatine (a protein energy source) in rehab, there is no significant evidence that usage is problematic.

Medical Monitoring

- The old “coffee and doughnuts” regimen has no role on the modern incident scene.

Medical Monitoring

- Consider the following factors in providing caloric and/or electrolyte replacement:
  - Duration of the event.
  - Amount of exertion.
  - Time since last meal.
  - General condition of the individual.

FLUID, ELECTROLYTE, & CALORIE REPLACEMENT

MEDICAL MONITORING

Medical Monitoring

- It is essential to drink water before thirst develops.
- On days where there is an increased risk of heat stress, it is ideal to prehydrate before work.

Medical Monitoring

- Alcohol is a central nervous system depressant and a diuretic (causes water loss).
- Alcohol consumption within 8 hours prior to strenuous firefighting can lead to early dehydration.

Medical Monitoring

- If a firefighter is involved in intense physical activities for more than an hour, fluids with a 4%-8% carbohydrate solution should be considered (sports drinks).
- 6-8 ounces (175-235 mL) should be consumed every 15 minutes.
- The drinks should be cool and flavored as the firefighter will tend to consume more.

Medical Monitoring

Sports Drink Ingredients							
Ingredients per 8 ounces	Accelorade®	Cytomax® ETD	Gatorade® Thirst Quencher	Gatorade® Endurance	Powerade®	Powerade® Advance	Powerade® Option
Sodium	120 mg	55 mg	110 mg	200 mg	53 mg	53 mg	55 mg
Chloride			90 mg	90 mg			
Potassium	30 mg	30 mg	30 mg	90 mg	15 mg	32 mg	35 mg
Calcium				6 mg			
Magnesium				3 mg			
Carbohydrate	15 gm (6%)	13 gm (5%)	14 gm (6%)	14 gm (6%)	17 gm (7%)	17 gm (7%)	2 gm (<1%)
Caffeine						47 mg	
Calories	80	50	50	50	64	66	10

Medical Monitoring

- Bottled sports drinks are preferred.
- If using powdered sports drinks, mix according to the manufacturer's recommendations.
- Ideally, water and sports drinks should be available.

MEDICAL MONITORING

MEDICAL MONITORING

Medical Monitoring

- Medical monitoring is the process of observing personnel for possible adverse effects from physical stress, heat or cold exposure, and environmental hazards.

Medical Monitoring

- Medical monitoring may be provided by fire-based and non-fire-based EMS personnel.

Medical Monitoring

- Regardless of the personnel type, all must understand the goals and principles of rehab, medical monitoring, and treatment.

Medical Monitoring

- Documentation for medical monitoring MUST be separate from documentation for medical treatment.
- Medical monitoring records are part of the incident records.
- Medical treatment reports are medical records.

Medical Monitoring

- Personnel in the rehab sector should undergo medical monitoring and, if necessary, receive medical care.
- NFPA 1584 requires BLS providers in the rehab sector (however ALS providers should be available).

Medical Monitoring

- EMS personnel should assess incoming personnel to rehab and provide any needed treatment per established protocols.

Medical Monitoring

- PPE should be removed, stowed, and checked.
- Tracking should begin as they enter the sector.

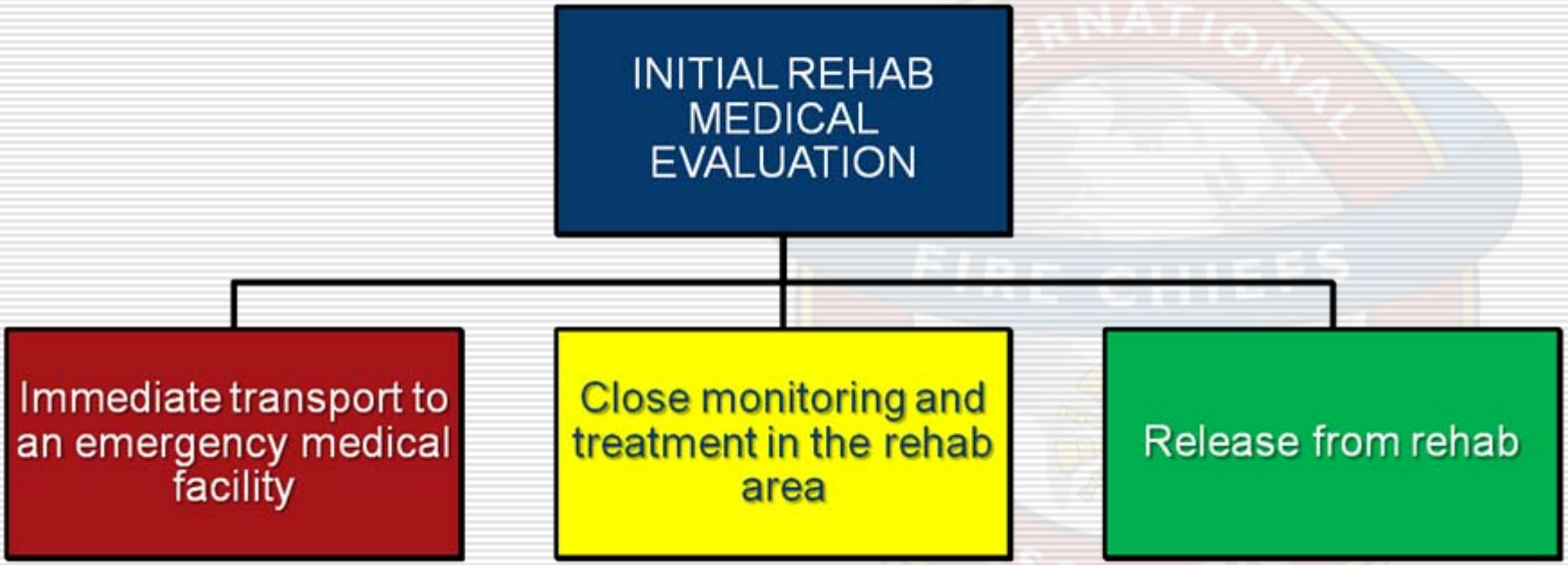
Medical Monitoring

EMS should evaluate for the following signs/symptoms:

- Chest pain
- Dizziness
- Shortness of breath
- Weakness
- Nausea
- Headache
- General complaints (cramps, aches and pains)
- Symptoms of environmental stress (heat or cold)
- Mental status changes
- Behavioral changes
- Changes in speech
- Changes in gait (ataxia)
- Abnormal vital signs (per departmental guidelines)

Medical Monitoring

REHAB MEDICAL DECISION-MAKING SCHEME



Medical Monitoring

- A transport capable ambulance must be available, on scene, to assure rapid transport.
- The transport ambulance must not take EMS personnel used in medical monitoring.

VITAL SIGNS

MEDICAL MONITORING

Medical Monitoring

- Vital signs:
  - Pulse rate
  - Respiratory rate
  - Blood pressure
  - Temperature
  - Oxygen saturation (SpO_2)

Medical Monitoring

- While many fire departments measure vital signs in rehab, not all choose to.

Medical Monitoring

- Vital sign measurement can help with medical decision-making (monitoring, treatment and transport) and can help establish a baseline.
- However, they must be interpreted within the context of the general appearance and ongoing health status of the individual.

Medical Monitoring

- Utility of vital sign measurement:
  - Help identify medical conditions requiring follow up.
  - A process should be in place in the SOGs to refer firefighters with abnormal vital signs for further assessment and follow-up medical care.

Medical Monitoring

- Temperature:
  - Oral and tympanic thermometers may be used but tend to read lower than core body temperature:
    - Oral: ~1° F (0.55° C) lower than core temp
    - Tympanic: ~2° F (1.1° C) lower than core temp
  - Both can be highly affected by many variables.

Medical Monitoring

- Temperature:
  - Regardless of the type of thermometer used, it is important to use the same device each time to accurately measure changes and trends.

Medical Monitoring

- Temperature:
  - Core temperature of firefighters continues to rise following cessation of physical activity and remains elevated following 20 minutes of rest even with active cooling measures.

Medical Monitoring

- Pulse rate:
  - Normal is 60-100 beats per minute.
  - Common to exceed 100 during exertion.
  - After resting for a period of time, heart rate should return to normal.
  - Heart rate must be interpreted within the context of the individual (baseline recorded resting heart rates are helpful).

Medical Monitoring

- Pulse rate:
  - Pulse rate can be easily measured by palpation.
  - Pulse oximetry or CO-oximetry can also be used.
  - However, detection of dysrhythmias and assessment of perfusion requires palpation of a peripheral pulse.

Medical Monitoring

- Respiratory rate:
  - Normal is 12-20 breaths per minute.
  - In rehab, most firefighters will have a higher than normal respiratory rate.
  - Respiratory rates should fall to normal before discharge from rehab.

Medical Monitoring

- Blood Pressure (BP):
  - One of the most frequently measured and least understood vital signs.
  - BP measurement is extremely prone to error.
  - Because of the extreme variability and difficulty interpreting blood pressure changes, many authorities choose not to routinely measure BP in rehab.

Medical Monitoring

- Blood Pressure (BP):
  - Potential for errors:
    - Wrong cuff size:
      - Too large (falsely low readings)
      - Too small (falsely elevated readings)
    - Malpositioning:
      - Above heart (falsely low readings)
      - Below heart (falsely elevated readings)
  - BP cuffs and stethoscopes are often dirty and can spread antibiotic-resistant bacteria.

Medical Monitoring

- Blood Pressure (BP):
  - Regardless, members with a systolic blood pressure > 160 mmHg or a diastolic blood pressure > 100 mmHg should not be released from rehab.
  - Always follow local protocols and SOGs related to BP measurement in rehab.

Best Practices in Rehab

THE BLOOD PRESSURE CONTROVERSY

Blood pressures measurements are prone to error and interpretations can be controversial. Members of ethnic and racial groups respond differently to physiological stress. If BP is measured, NFPA 1584 recommends that members with a systolic BP >160 or a diastolic BP >100 NOT be released from rehab. Additional research is needed to define the role of BP in rehab.

Medical Monitoring

- Pulse Oximetry:
  - Noninvasive measure of oxygen saturation (SpO_2) and pulse rate.
  - Good assessment tool prior to and during oxygen administration and medical treatment.
  - Fire fighters with SpO_2 <92% on room air should not be released from rehab.

Medical Monitoring

PULSE OXIMETRY INTERPRETATION	
SpO_2 READING (%)	INTERPRETATION
95 – 100	Normal
91 – 94	Mild Hypoxemia
86 – 90	Moderate Hypoxemia
< 85	Severe Hypoxemia

Medical Monitoring

- Carbon Monoxide (CO) Assessment:
  - CO is the leading cause of death at fire scenes.
  - Most commonly encountered contaminant found in environmental studies of firefighters.
  - EMS personnel in the rehab sector must be alert for symptoms of CO poisoning.
  - CO can be detected through exhaled CO measurement or in the bloodstream with Pulse CO-Oximetry.

Medical Monitoring

- Pulse CO-Oximetry:
  - Noninvasive measure of oxygen saturation (SpO_2), carboxyhemoglobin (SpCO), and methemoglobin (SpMet)†.
  - Rapid rehab assessment tool for possible CO exposure on the fire ground.
  - Pulse CO-Oximetry can serve as a replacement and/or adjunct to standard pulse oximetry.

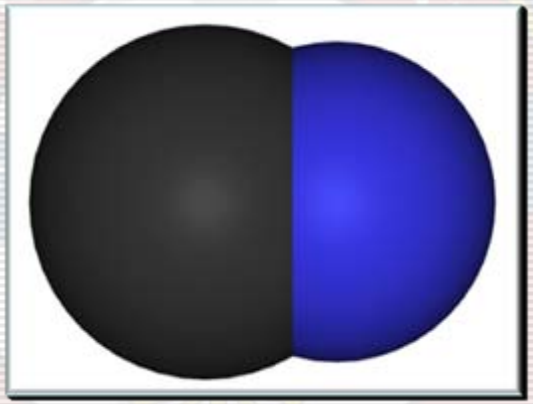
†-Methemoglobin not available on all models.

Medical Monitoring

- Pulse CO-Oximetry:
  - Normal values:
    - 0-5% (non-smokers)
    - 5-10% (smokers)
  - SpCO 10-15%:
    - Assess for signs and symptoms of CO poisoning.
  - SpCO > 15%:
    - Treat with 100% oxygen
    - Member must have a normal SpCO to be released from rehab.

Medical Monitoring

- Signs and symptoms of shock, seizures cardiac arrest, AND a normal or low SpCO?
- Consider cyanide and have a low threshold for treatment (preferably with hydroxocobalamin).



Cyanide

ACCOUNTABILITY

MEDICAL MONITORING

Medical Monitoring

- All personnel who enter rehab must be accounted for.
- Tracking systems and records are essential for medical monitoring.
- Medical monitoring records and medical treatment records should be separate.

Date: _____

Name: _____

Age: _____ Company: _____

ENTRY VITALS

Time	B/P	Pulse	Resp.	Temp.
To Enter Medical	Systolic <90 or >160 Diastolic >110	>120		>99.5 F

☐ **REHAB ONLY**

☐ **MEDICAL EVAL AND REHAB**

Vitals taken at 10 min. intervals (max)

				Retain
Time				
B/P				> 160 systolic < 100 systolic > 90 diastolic
Pulse				> 100
Resp.				
Temp.				> 99.5 F
Taken By				

DISPOSITION

☐ **Return to Fire Ground**

☐ **Off Duty**

☐ **Transport to a Hospital**

Rehab Officer: _____

Time Released: _____

Incident Rehab - Individual Rehabilitation Report

Incident Location________________________ Date ____________ Time __________ Rehab Officer __________________________

Name	Time In/Out	# SCBA Cylinders	Exam Period	BP	Pulse	Resp	Temp	Skin	Cooling/ Heating	Hydration/ Nourishment	Medical Complaints	Trans Y / N
			INITIAL									
			10 Min									
			20 Min								(Glucose____)	
			30 Min								(Glucose____)	
			INITIAL									
			10 Min									
			20 Min								(Glucose____)	
			30 Min								(Glucose____)	
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			INITIAL									
			10 Min									
			20 Min								(Glucose____)	
			30 Min								(Glucose____)	

Medical Monitoring

- Each crew or company should stay together when entering rehab.
- Individual crew members have the responsibility to alert their supervisor as to the need for rehab.

Best Practices in Rehab

ACCOUNTABILITY

Pursuant to the NIMS and NFPA 1561, incident commanders are responsible for tracking and accounting for all personnel and assets operating at an emergency scene. A good accountability system should be scalable for minor and major events, be interoperable with other agencies, be simple, utilize a standard tagging system, nd use interoperable communications.

RELEASE

MEDICAL MONITORING

Medical Monitoring

- Release from rehab:
  - EMS personnel should evaluate members prior to release from rehab.
  - EMS personnel must assure there are no contraindications to returning to work.

Medical Monitoring

- For smaller incidents, rehab may occur at the company/crew level outside of the standard rehab sector.
- Accountability rests with the company officer.

MENTAL HEALTH

MEDICAL MONITORING

Medical Monitoring

- As personnel rotate through rehab, sector personnel should observe for signs of psychological or emotional stress.
- Personnel experiencing psychological and/or emotional stress should not be allowed to return to the fire ground and should be evaluated by a licensed mental health professional who has knowledge of the fire service and fire operations.

Medical Monitoring

- If one or more members of a crew or company are seriously injured or killed during an incident, all members of the company or crew should be removed from emergency responsibilities as soon as possible.

Medical Monitoring

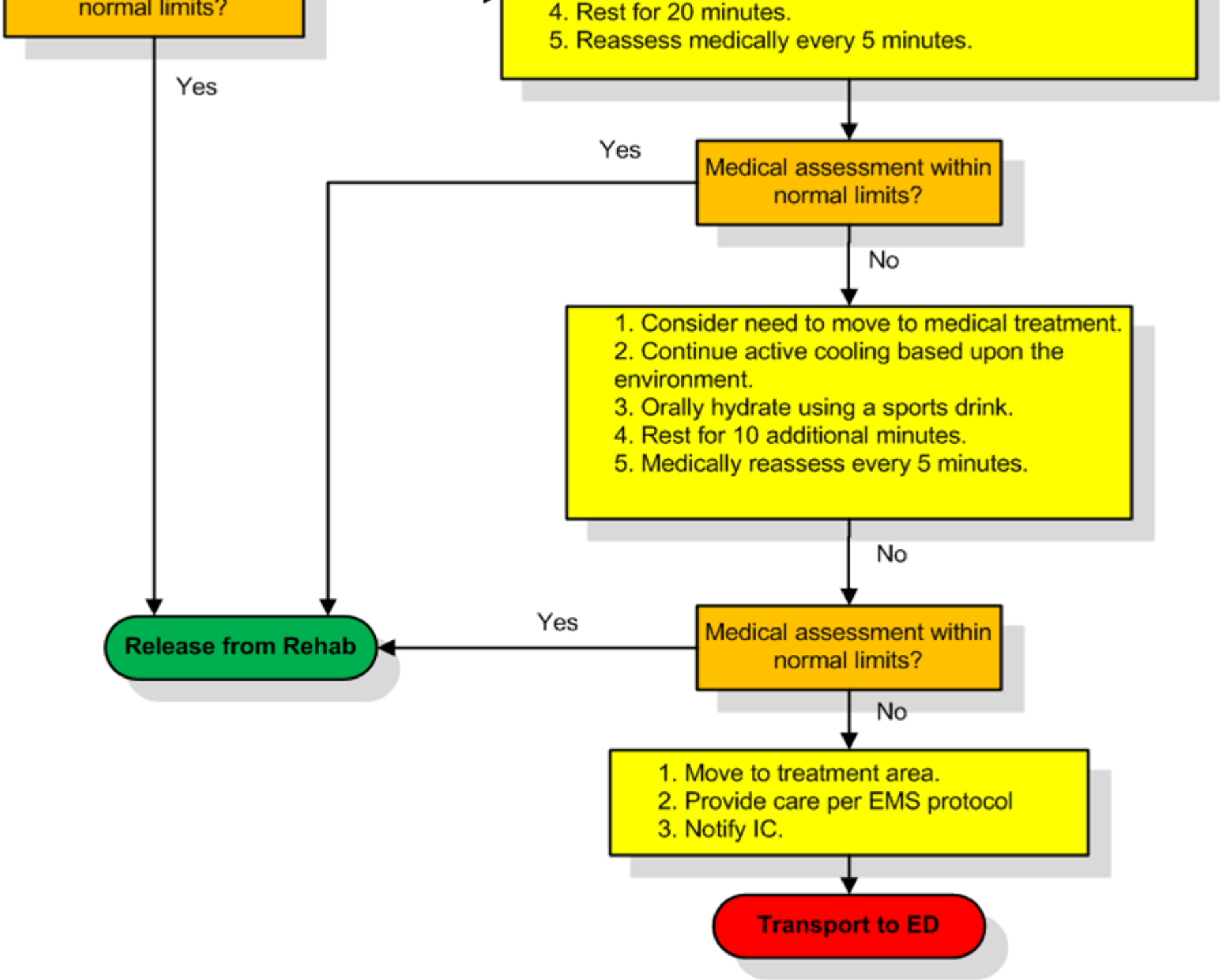
- The provision of mental health services should be voluntary and not mandated.
- Psychological first aid (providing comfort needs and information) may be provided.

Medical Monitoring

- Interventions such as Critical Incident Stress Debriefing (CISD) and Critical Incident Stress Management (CISM) should not be used.
- The preponderance of the scientific literature has found these interventions to be of no benefit and possibly harmful.

MEDICAL TREATMENT

MEDICAL MONITORING


normal limits?
Yes
4. Rest for 20 minutes.
5. Reassess medically every 5 minutes.
Yes
Medical assessment within normal limits?
No
1. Consider need to move to medical treatment.
2. Continue active cooling based upon the environment.
3. Orally hydrate using a sports drink.
4. Rest for 10 additional minutes.
5. Medically reassess every 5 minutes.
No
Yes
Medical assessment within normal limits?
Release from Rehab
No
1. Move to treatment area.
2. Provide care per EMS protocol
3. Notify IC.
Transport to ED

POST-INCIDENT REHAB

MEDICAL MONITORING

Medical Monitoring

- Post-incident rehab is just as important as rehab at the incident scene.
- Each department should have a policy on post-incident rehab.
- The degree of post-incident rehab should be based upon the duration and intensity of the workload.
- At the least, supervisors should encourage continued fluid intake after the incident.

SUMMARY

MEDICAL MONITORING

Medical Monitoring

- The health and well being of our personnel should be our primary concern.

Medical Monitoring

- Firefighter safety is intricately tied to organized rehabilitation efforts.
- Firefighters cannot be counted on to self-report problems.

Medical Monitoring

- Rehab should be included in all operations where environmental, physical, and psychological stress can occur.

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Credits

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  - Phoenix FD

Credits

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