

TEMPERATURE AND ENVIRONMENTAL EMERGENCIES

ALL PROVIDERS / EMT

- ☐ Scene and patient management
 - Remove patient from hot or cold environment, when possible
 - Focused history and physical exam
 - Body temperature and blood glucose assessment.
 - Assess level of consciousness; apply the **Altered Mental Status Guideline** if applicable.
 - Assess for underlying causes; medications, toxins, CNS lesions or other medical conditions.
- ☐ Cardiac monitor, ETCO₂, and pulse oximetry monitoring when available
- ☐ **Treatment Plan**
 - **Heat Related**
 - Temperature elevation **WITHOUT** altered mental status (Heat Exhaustion)
 - Slow cooling with ice packs, wet towels, and/or fans to areas in the vicinity of carotid, femoral, brachial arteries.
 - If patient is alert and not nauseated, oral rehydration with water or balanced electrolyte solution.
 - Severe muscle cramps may be relieved by gentle stretching of the muscles.
 - Temperature elevation **WITH** altered mental status (Heat Stroke)
 - Aggressive cooling to unclothed patient utilizing fine mist water spray and fans in conjunction with ice packs to groin and axilla while maintaining modesty. NOT Recommended for children and infants.
 - Aggressive cooling should be stopped if shivering begins.
 - Monitor closely for dysrhythmia, recognize and treat with the appropriate **Cardiac Patient Care Guideline**
 - Cool IV fluids should be administered (AEMT and PM only)
 - Benzodiazepines may be used for shivering (AEMT and PM only)
 - **Cold Related**
 - Protect patient from further heat loss (application of blankets, removal of wet clothing, warm environment, etc.).
 - Suspicion of cardiac arrest in cold environment, assess for 30-45 seconds to confirm pulselessness.
 - Confirm body temperature and treat accordingly
 - **Severe: <86°F (30°C)**
 - Use active external rewarming (heated oxygen, warm packs to neck, armpits, groin, etc.)
 - Administer warm IV fluids, if available
 - Cardiac arrest: Chest compressions and ventilations. Limit defibrillation attempts to 3 and no external pacing. Likelihood of successful defibrillation improves as patient is warmed.
 - Handle the patient gently during transport because rough movement may precipitate arrhythmias.
 - **Moderate: 86-93°F (30-34°C)**
 - Use warm packs to neck, armpits, and groin
 - **Mild: >93°F (34°C)**
 - Warm with blankets, warm environment, etc.
 - Frostbite precautions – Do not rub or use dry external heat. Re-warm with 40°C water if possible.
- ☐ **Key Considerations**
 - Avoid refreezing of cold extremities. If refreezing cannot definitely be avoided during transport, do not start the thawing process.

ADULT

PEDIATRIC (<15 years of Age)

NOTE: Pediatric weight based dosing should not exceed Adult dosing.

AEMT

- ☐ Advanced airway, vascular access and fluid therapy per **IV/IO Access and Fluid Therapy Guidelines**
- Heat Emergencies**
 - Cool fluid therapy: 500 – 1000 cc NS bolus
 - Benzodiazepines for shivering:
- Cold Emergencies**
 - Warm fluid therapy: 500 – 1000 cc NS bolus

AEMT

- ☐ Advanced airway, vascular access and fluid therapy per **IV/IO Access and Fluid Therapy Guidelines**
- Heat Emergencies**
 - Cool fluid therapy: 20 ml/kg IV bolus
 - Benzodiazepines for shivering:
 - Midazolam 0.3 mg/kg IN/IV/IM (max 2 mg), may repeat once, if needed
- Cold Emergencies**
 - Warm fluid therapy: 20 cc/kg NS bolus

PARAMEDIC

☐ **Cold emergencies**

- Withhold anti-arrhythmic meds until temperature $>86^{\circ}\text{F}$ (30°C)

PARAMEDIC

☐ **Cold emergencies**

- Withhold anti-arrhythmic meds until temperature $>86^{\circ}\text{F}$ (30°C)