

ENVIRONMENTAL EMERGENCIES

EMR	<ul style="list-style-type: none"> ❑ Routine Medical Assessment and Interventions ❑ Obtain Temperature, SpO₂, ETCO₂, and/or CO readings via non-invasive devices as indicated for the situation and when equipment is available. ❑ Oxygen as indicated, if SpO₂ is below 94% <p><i>HYPOTHERMIA (CORE TEMP < 93°F):</i></p> <ul style="list-style-type: none"> ❑ Handle patient gently – avoid sudden/jerky movement if possible ❑ Remove from environment: note length of exposure ❑ Remove wet clothing ❑ Provide gentle re-warming to head, chest, groin, armpits. ❑ Do not re-warm frostbitten extremities if there is any risk of refreezing ❑ Assist with ventilation as necessary ❑ If patient is in cardiac arrest, begin CPR - If shock advised, defibrillate one time only <p><i>HYPERTHERMIA (CORE TEMP > 105° F):</i></p> <ul style="list-style-type: none"> ❑ If skin is hot, red and dry <ul style="list-style-type: none"> ○ Remove clothing ○ Place ice packs in groin and axilla ❑ Mist patient with water to promote evaporative cooling and/or Cover with wet sheets allowing good air flow ❑ Obtain frequent vital signs & re-assess patient’s status frequently 	EMR
EMT	<p><i>ALL SITUATIONS:</i></p> <ul style="list-style-type: none"> ❑ Check blood glucose 	EMT
AEMT	<p><i>ALL SITUATIONS:</i></p> <ul style="list-style-type: none"> ❑ Initiate vascular access as needed and indicated ❑ Consider administration of Normal Saline 250mL bolus as needed (warmed – if hypothermia; room temperature if hyperthermia). 	AEMT
EMT-I	<p><i>ALL SITUATIONS:</i></p> <ul style="list-style-type: none"> ❑ Obtain ECG as needed and indicated <p><i>HYPOTHERMIA:</i></p> <ul style="list-style-type: none"> ❑ Withhold anti-arrhythmic and epinephrine in cardiac arrest until core temperature > 86° F. Then treat as normal per ACLS 	EMT-I
PARAMEDIC	<p><i>HYPOTHERMIA:</i></p> <ul style="list-style-type: none"> ❑ Withhold endotracheal intubation if patient has perfusing pulse and a respiratory effort – assist only. ❑ If patient has ROSC, focus on supportive care and ventilator support. Withhold anti-arrhythmic medications unless otherwise indicated – See cardiac arrest management guideline. <p><i>ALL SITUATIONS:</i></p> <ul style="list-style-type: none"> ❑ If patients present with seizure activity, may consider Midazolam 1.25mg to 2.5mg IV/IO/IM/IN as indicated to control seizure – Note dose is ½ normal. Consider OLMC consultation if additional medication is required. 	PARAMEDIC

ENVIRONMENTAL EMERGENCIES CONT.

Clinical Care Pearls

- Hyperthermia may exhibit via several signs/symptoms which have descriptive terms. These conditions/terms represent an increase in severity and acuity. These include:
 - Heat cramps: abdominal or leg cramps – usually indicates electrolyte imbalance and need for rest and hydration. Body’s normal temperature regulation mechanisms remain intact, but can deteriorate if exposure/exertion continues.
 - Heat exhaustion: Usually a gradual onset and presents with pale and moist skin and signs/symptoms of dehydration (e.g., tachycardia, tachypnea, compensatory shock). Body is losing the ability to thermo regulate.
 - Heat stroke: Presents with altered mental status, hot/red and dry skin. This is a true medical emergency, and represents the inability for the body to thermo regulate. Rapid intervention is essential.

- The potential for hypothermia exists year round in Oregon. As a result, providers should not overlook the need to keep patients warm during transport situations – even if providers are uncomfortable. The following provides some perspective on signs/symptoms of hypothermia:
 - Shivering occurs between 93-98° F (34-37° C)
 - Shivering stops when body temperatures fall below 90° F
 - The heart is more likely to fibrillate if core temp falls below 86° F (30° C) and will likely not convert until body temperatures increase to >88° F (31° C)
 - Hypothermic patients should received warm IV fluids if available

Mild >93°F	Moderate 86°F to 93°F	Severe < 86°F
<ul style="list-style-type: none">• Shivering• Lethargy• Staggering gait	<ul style="list-style-type: none">• Shivering lessens• Confusion• Loss of balance	<ul style="list-style-type: none">• Stupor• Coma• Dysrhythmias• Cardiac arrest