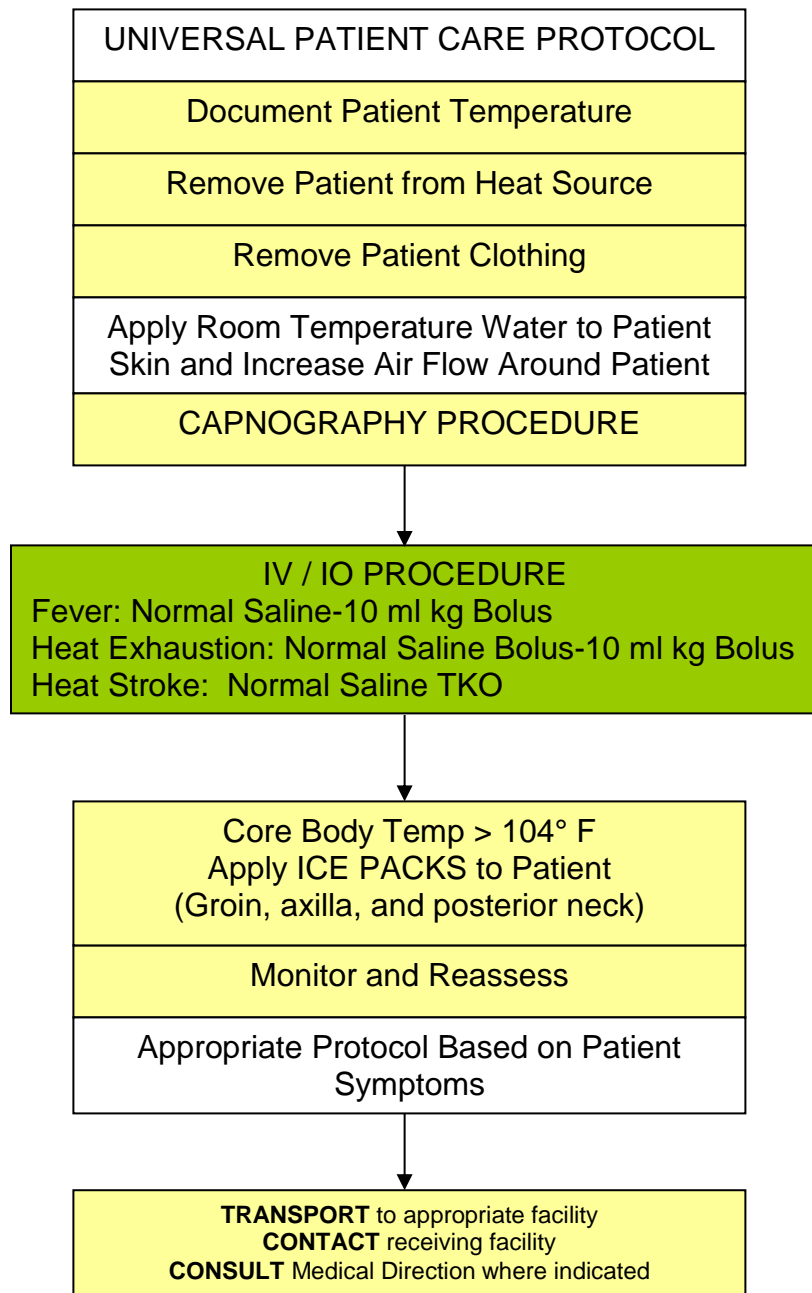




# Section 10: Pediatric Medical Emergencies Protocols

## PEDS MEDICAL EMERGENCIES: HYPERTHERMIA / HEAT EXPOSURE

E	EMT	E
A	AEMT	A
P	PARAMEDIC	P
M	MED CONTROL	M





## Section 10: Pediatric Medical Emergencies Protocols

### PEDS MEDICAL EMERGENCIES: HYPERTHERMIA / HEAT EXPOSURE-Cont.

#### PEARLS and KEY POINTS

HISTORY	SIGNS AND SYMPTOMS	DIFFERENTIAL DIAGNOSIS
<ul style="list-style-type: none"> <li>• Age</li> <li>• Exposure to increased temperatures and humidity</li> <li>• Past medical history / medications</li> <li>• Extreme exertion</li> <li>• Time and length of exposure</li> <li>• Poor PO intake</li> <li>• Fatigue and / or muscle cramping</li> </ul>	<ul style="list-style-type: none"> <li>• Altered mental status or unconsciousness</li> <li>• Hot, dry or sweaty skin</li> <li>• Hypotension or shock</li> <li>• Seizures</li> <li>• Nausea</li> </ul>	<ul style="list-style-type: none"> <li>• Fever (infection)</li> <li>• Dehydration</li> <li>• Medications</li> <li>• Hyperthyroidism (storm)</li> <li>• Delirium tremens (DT's)</li> <li>• Heat cramps</li> <li>• Heat exhaustion</li> <li>• Heat stroke</li> <li>• CNS lesions or tumors</li> </ul>

Heat Exhaustion: Dehydration	Heat Stroke: Cerebral Edema
<ul style="list-style-type: none"> <li>• Muscular/abdominal cramping</li> <li>• General weakness</li> <li>• Diaphoresis</li> <li>• Febrile</li> <li>• Confusion</li> <li>• Dry mouth / thirsty</li> <li>• Tachycardia</li> <li>• BP normal or orthostatic hypotension</li> </ul>	<ul style="list-style-type: none"> <li>• Confusion</li> <li>• Bizarre behavior</li> <li>• Skin hot, dry, febrile</li> <li>• Tachycardia</li> <li>• Hypotensive</li> <li>• Seizure</li> <li>• Coma</li> </ul>

- **Exam: Mental Status, Skin, HEENT, Heart, Lungs, Neuro**
- Extremes of age are more prone to heat emergencies (i.e. young and old).
- Predisposed by use of: tricyclic antidepressants, phenothiazines, anticholinergic medications, and alcohol.
- Cocaine, Amphetamines, and Salicylates may elevate body temperatures.
- Sweating generally disappears as body temperature rises above 104° F (40° C).
- Intensive shivering may occur as patient is cooled.
- **Heat Cramps** consists of benign muscle cramping secondary to dehydration and is not associated with an elevated temperature.
- **Heat Exhaustion** consists of dehydration, salt depletion, dizziness, fever, mental status changes, headache, cramping, nausea and vomiting. Vital signs usually consist of tachycardia, hypotension, and an elevated temperature.
- **Heat Stroke** consists of dehydration, tachycardia, hypotension, temperature > 104° F (40° C), and altered mental status.
- Patients at risk for heat emergencies include neonates, infants, geriatric patients, and patients with mental illness. Other contributory factors may include heart medications, diuretics, cold medications and / or psychiatric medications.
- Heat exposure can occur either due to increased environmental temperatures or prolonged exercise or a combination of both. Environments with temperature > 90° F and humidity > 60% present the most risk.
- Heat stroke occurs when the cooling mechanism of the body (sweating) ceases due to temperature overload and / or electrolyte imbalances. Be alert for cardiac dysrhythmias for the patient with heat stroke.
- Too much fluid in Heat stroke can cause cerebral edema.
- Change in mental status is hallmark sign of Heat stroke. Only 50% of patients lose sweating mechanism.