

HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

5C HYPERTHERMIA

PATIENT CARE GOALS

- Identify heat illness and provide cooling, hydration, and other treatment while maintaining adequate oxygenation, ventilation and perfusion.

EMT

1. Assess the patient and provide initial care, including oxygen and vascular assess, per **1B General Assessment and Care**. Determine the etiology of the illness (heat exhaustion and/or heat cramps, heat stroke, or other).¹
2. Remove the patient from hot and/or humid surroundings, and begin cooling.
 - Avoid excessive chilling (e.g., with ice packs or cold water immersion) that can induce shivering and increase heat production.
 - For heat stroke, provide aggressive cooling. Remove the patient's clothing; cover the patient with sheets soaked in tepid water, and use fans or other air flow to obtain an initial target temperature of 39 degrees Celsius (102.2 degrees Fahrenheit).
3. Rest the patient in a supine position.
4. Check the patient's initial temperature and monitor for changes.
5. Provide rehydration and electrolyte replacement with IV normal saline. Balanced electrolyte drinks (e.g., Gatorade) are acceptable if the patient is alert and not nauseated.
6. Check blood glucose level and treat hypoglycemia as outlined in **3G Hypoglycemia**.

PARAMEDIC

7. Treat nausea as outlined in **1C Pain and Nausea Management**.
8. Treat seizures as outlined in **3F Seizures**.

DOCUMENTATION KEY POINTS

- Mechanism of heat illness, duration and degree of exposure.
- Neurological assessments and measurements or estimates of temperature.
- Method(s) of cooling used, if attempted.
- Temperature, at least one and ideally one pre-treatment and at the end of transport, if thermometer is available.
- Initial and ongoing assessments, monitoring, interventions, patient response, and complications (if any) encountered.

NOTES

¹ Heat illness may fall anywhere on a spectrum ranging from mild heat exhaustion to severe heat stroke. Immediate cases may be hard to classify; if in doubt, treat as heat stroke.

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- **Heat Cramps** are skeletal muscle spasms that occur following strenuous activity in hot environments, where sweating has caused excessive loss of water and electrolytes.
- **Heat exhaustion** occurs where heat exposure and sweating result in dehydration, vasodilation, and electrolyte loss. Core temperature is usually mildly to moderately elevated. The patient may be shaky and may have headache, dizziness, weakness, nausea, diarrhea, muscle cramps, and altered mental status. Untreated heat exhaustion may progress to heat stroke.
- **Heat stroke** is a serious medical emergency resulting from loss of hypothalamic temperature regulation, leading to altered mental status, severely elevated core temperature often greater than 40 degrees Celsius (104 degrees Fahrenheit), hot skin without active sweating, and frequent neurologic symptoms (coma, seizures).