

SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 07/01/02

Protocol: P-017

HYPERTHERMIA

SUBJECTIVE FINDINGS

- Patient activity.
- Medications: tranquilizers, alcohol, diuretics, antidepressants.
- Associated symptoms: chest pain, cramps, headache, orthostatic symptoms, nausea, weakness.
- Air temperature and humidity; presence of excess clothing.

OBJECTIVE FINDINGS

HEAT CRAMPS

- Temperature: Usually normal.
- Mental Status: Alert.
- Skin Signs: Sweaty, may be warm or cool to touch.
- Neuro Exam: Normal except for muscle cramps (usually legs).

BLS Treatment	ALS Treatment
<ul style="list-style-type: none">• Routine Medical Care.• Note patient's temperature if possible.• Remove excess clothing.• Move patient to cool area.• Give cool/cold liquids PO as tolerated.• Stretch cramped muscles to reduce pain.	<ul style="list-style-type: none">• Same as BLS.

HEAT EXHAUSTION

- Temperature: Normal to slight elevation
- Mental Status: Alert to slight confusion
- Skin Signs: Sweaty, usually hot to touch
- Neuro exam: No loss of control of extremities, but feels very weak, with preservation of normal neuro function.

BLS Treatment	ALS Treatment
<ul style="list-style-type: none">• Routine Medical Care.• Note patient's temperature if possible.• Remove excess clothing.• Move patient to cool area.	<ul style="list-style-type: none">• IV of NS.• Give cool/cold liquids PO as tolerated.• Cardiac monitor.• Transport.

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HEAT STROKE

- Temperature: Core temperature usually 104 degrees Fahrenheit or greater.
- Mental Status: Altered .
- Skin Signs: Usually flushed, hot; may or may not be moist if exercise induced.
- Neuro Exam: May have active persistent seizures.

BLS Treatment	ALS Treatment
<ul style="list-style-type: none">• Routine Medical Care.• Note patient's temperature if possible.• Remove excess clothing.• Move patient to cool area.• Spray or sprinkle tepid water and use fan to cool.• Cardiac monitor.	<ul style="list-style-type: none">• IV of NS.• If hypotensive (SBP < 90 or signs of poor perfusion): fluid challenge (500 ml NS, reassess and repeat if indicated).• Continue COOLING measures during transport.• Transport to closest open facility.

DOCUMENTATION

- Skin signs.
- Mental status.
- If skin flushed and hot and AMS present: IV of NS and cooling measures started.

PRECAUTIONS AND COMMENTS

- Persons at great risk of Hyperthermia are the elderly, individuals in endurance athletic events, and persons on medications which impair the body's ability to regulate heat.
- Be aware that heat exhaustion may progress to heat stroke.
- Do not use ice water or cold water to cool patient due to potential vasoconstriction.
- Do not place towels or blankets on the patient as they may increase core temperature.
- Patients with simple heat cramps may not need to be transported if cooling measures and liquids relieve symptoms.
- Be alert for signs of occult trauma, e.g. falls, and institute appropriate treatment if suspected.