



HYPOTHERMIA / FROSTBITE



Escambia County, Florida – 1st Responder Medical Protocol

Factors that predispose and/or cause a patient to develop hypothermia include: geriatric and pediatric patients, poor nutrition, diabetes, hypothyroidism, brain tumors or head trauma, sepsis, use of alcohol and certain drugs, and prolonged exposure to water or low atmospheric temperature.

Hypothermia patients can be divided into three categories:

Mild (temperature 94-97 degrees F)

Moderate (temperature 86-94 degrees F),

Severe (temperature <86 degrees F).

It should be noted that most oral thermometers will not register below 96 degrees F.

Mild to Moderate hypothermia

Patients will generally present with shivering, lethargy, and stiff, uncoordinated muscles.

Severe hypothermia

Patients may be disoriented and confused to stupor and coma. Shivering will usually stop and physical activity will be uncoordinated. In addition, severe hypothermia will frequently produce an Osborn wave or J wave on the ECG, as well as dysrhythmias (bradycardia, ventricular fibrillation).

Hypothermia

A. **Assessment:**

1. Skin cold; may or may not be shivering
2. Vague, slow, slurred, and thick speech
3. Disorientation and mental confusion



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Approved by:

A handwritten signature in black ink, appearing to read "Charles Neal".
Charles Neal, D.O. Medical Director



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4. Unconsciousness, deep coma with severe hypothermia
5. Vital signs may appear to be absent:

Don't assume a patient is dead until they are warm and dead!!

B. Treatment:

1. Move patient to a warm, draft-free environment. Maintain horizontal position.

Handle gently!! Sudden movement may cause lethal cardiac rhythms.

2. ABC's: Assist respirations as indicated in [General Supportive Care Protocol](#) - Assist gently!!
3. Continue gentle warming efforts. Cover with warm blankets and allow patient to rewarm slowly. Remove wet garments.

C. Report

To EMS crew as indicated in [General Supportive Care Protocol](#).

II. Frostbite

A. Assessment:

1. Skin: cold, firm, white and waxy in appearance; may also appear mottled or blotchy.
2. May experience numbness or tingling in hands, feet

B. Treatment

1. Warm carefully - don't rub!!!



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(May cause injury to skin and underlying soft tissue). If clothing is frozen to the skin, leave it alone - remove after thawing. Remove any constricting clothing or jewelry. Do not begin re-warming until you are sure patient is safely out of the freezing environment. (Thawing followed by refreezing increases damage).

2. Hands and feet may be submerged in warm, not hot, water to aid in warming; water should be just above normal body temperature. Never use dry heat. If feet are involved, do not allow patient to walk.

C. Report

To crew as indicated in [General Supportive Care Protocol](#).



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