

Hypothermia Induced Cardiac Arrest

This protocol should only be used when hypothermia is believed to be the primary cause of the patient's arrest

Secondary causes of hypothermia (e.g. sepsis, toxins, hypoglycemia) and cardiac arrest should be managed according to the corresponding cardiac protocol, including recognition of reversible Hs and Ts.

Routine Medical Care/Trauma Care¹

Confirm pulselessness by performing ALL pulse checks for up to 60 seconds

Attach monitor and defibrillator pads
Confirm cardiac rhythm prior to initiating CPR²

VF/VT

- Initiate CPR
- Defibrillate **ONCE** @ max Joules
- **Epinephrine 0.1mg/ml** (1:10,000) 1mg IV/IO **ONCE**
- Measure body temperature³

Asystole

- Initiate CPR
- **Epinephrine 0.1mg/ml** (1:10,000) 1mg IV/IO **ONCE**
- Measure body temperature³

PEA

- Do **NOT** initiate CPR
- Monitor rhythm – true PEA will rapidly deteriorate to asystole
- Treat Hs and Ts
- Measure body temperature³

Rewarming Should Include:

- Warmed IVF
- Hot packs (wrapped in towel) applied to torso
- Dry sheets or warming blankets over patient
- Warmed ambulance

- Do not give any additional shocks or epinephrine until temp > 86°F
- Remove wet clothing if not already done
- Initiate passive and active rewarming⁴
- Avoid jostling or excessive stimulation during transport – this may precipitate further dysrhythmias

Treat as per standard **Cardiac Arrest** protocol once temperature above > 86°F

Contact **Medical Control** early for consultation

Transport patient to hospital regardless of resuscitation efforts unless core temperature > 86°F (30°C) is confirmed

Hypothermia can happen even in warmer regions – especially if person is elderly, septic, homeless, immersed, or altered.

¹ The most experienced provider should intubate to limit manipulation. Avoid hyperventilation which can cause ventricular fibrillation in hypothermic patients. Use etCO₂ monitor to maintain normal pCO₂ levels (35-45 mmHg).

² Consider withholding CPR if patient has an organized rhythm or other signs of life. Do not perform cardiac pacing or give Atropine if body temperature is < 86°F (30°C). Hypothermic patients have decreased metabolic needs and can better tolerate decreased blood flow states like PEA or severe bradycardia. **Consult with Medical Control.**

³ If the temperature is unable to be measured, assume severe hypothermia (< 86°F) is present, begin rewarming, and plan for transport.