



HEAT STROKE

COOL BEFORE TRANSPORT



HOT + ALTERED + ~104°F = SUSPECT HEAT STROKE

>0.27°F/min



ADEQUATE COOLING RATE

>(0.15°C/min)

102.5°F



COOLING ENDPOINT

Rectal Temperature

≤30 MIN



COOLING OBJECTIVE

From Onset

WHAT TO DO: START COOLING IMMEDIATELY

- 1** **REMOVE FROM HEAT**
Remove excess clothing.
- 2** **START WATER COOLING NOW**
Begin cold/ice-water dousing while preparing immersion setup.
- 3** **GET A RECTAL TEMPERATURE**
Preferred core-temperature measurement.
- 4** **IMMERSE + AGITATE**
Use bathtub, tarp, body bag, or kiddie pool filled with cold water + ice. Keep the water moving.
- 5** **MANAGE ABCs DURING COOLING**
Provide airway, breathing, and circulation support without unnecessarily interrupting cooling.
- 6** **COOL TO 102.5°F → TRANSPORT**
Or 20 minutes of cold-water immersion if temp unavailable.

USE WATER. IT WORKS BEST.

- High thermal conductivity (24x more efficient than air)
- High specific heat capacity (absorbs large amounts of heat)
- Greater density than air (enhances heat absorption)
- Rapid cooling (~4x faster than air)
- Extensive contact surface (covers nearly entire body)

ADEQUATE COOLING METHODS CAN ACHIEVE ADEQUATE COOLING RATE

- Ice-water immersion with agitation
- Cold-water immersion with agitation
- Cold-water dousing + ice massage + fanning
- Tarp-assisted cooling (TACO)
- Whole-body rotating ice towels + ice-water dousing

**~4.5x
GREATER
RISK
OF MEDICAL
COMPLICATIONS
AMONG
SURVIVORS**

Clinical implication: insufficient cooling rates are associated with approximately **4.5-fold** greater risk of medical complications among survivors.

INSUFFICIENT METHODS LISTED AS INSUFFICIENT

- Ice packs over major vessels (neck, axillae, groin)
- Ice sheets
- Spray-fan cooling
- Cold IV fluids
- Cooling blankets
- Tepid-water sponging and fanning



DO NOT DELAY COOLING TO PREPARE FOR TRANSPORT.
COOLING IS THE DEFINITIVE TREATMENT.
MANAGE ABCs CONCURRENTLY WHENEVER POSSIBLE.



DAVIDSON COUNTY EMS
HYPERTHERMIA PROTOCOL TE4

FULL EVIDENCE GUIDE & REFERENCES
SCAN QR CODE

