

Hypothermia

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Hypothermia is common in trauma patients, geriatric patients, pediatric patients, burn patients, and patients exposed to moderate and hostile environments.

- 20% of all trauma patients become hypothermic. The 2 major causes include exposure to the environments, and / or infusion of below normal body temperature iv fluids.
- Geriatric patients who are sick or injured often become hypothermic due to the same reasons listed above, plus a slower metabolism.
- Pediatric patients have a relatively fast metabolism, but a small body mass, and are susceptible to exposure to moderate, to inclement weather conditions, and cold iv infusions.
- Burn patients require rapid cooling of the burn area, and may require large infusions of iv fluids due to plasma loss through the burn areas of the body. They are at high risk for a lowered body core temperature.
- Patients exposed to moderate temperatures may easily develop hypothermia. Even inside a home in the summer, an elderly patient with a hip fracture, lying on a tile floor can rapidly become hypothermic.
- Immersion in to a cold body of water leads to very rapid loss of body temperature. Heat travels to cold, & the body is in direct contact with a circumferential heat sink. Hypothermia is a high hazard for these patients.
- Patients without hypothermia may develop mild, to moderate hypothermia from a below normal body temperature infusion of iv fluids.
- Medications are 10% less effective with each degree Fahrenheit of body core temperature drop in medical patients.

When a sick or injured patient as described above becomes hypothermic, the body will divert energy to attempt thermoregulation, further

compromising the patient, and possibly worsening the outcome of the attempted patient care rendered.

In summary,

- **The infusion of warmed iv fluids is good patient care. Improved outcomes can be expected on every sort of patient that has an opportunity to survive.**
- **To risk patient outcomes by infusions of below normal body temperature fluid, is not in the best interest of the patient, or the care providing agency.**
- **There are no absolute contraindications for an infusion of normal body temperature iv fluids in the pre-hospital arena.**

The Smithworks Company is owned and operated by a firefighter paramedic. It is our mission to build the finest equipment specific to promoting improved patient outcomes as it relates to the infusion of warm iv fluids.

In our near decade of operation, having built thousands of iv fluid warmers, we have assisted agencies like yours deliver hundreds of thousands of warmed iv fluids, with many reports of favorable patient outcomes, as well as reports of lives saved.

We will continue to innovate, and improve our product line, and pledge our efforts to nothing less than excellence.

Douglas M. Smith, Owner of The Smithworks Company