

# CritiCool®

- The non-invasive approach to cooling therapy
  - Precise temperature control
    - Maximal energy transfer
    - Early treatment initiation
    - Minimal staff labor

## Simply Set, Wrap & Cool

### Technical Specifications

#### CritiCool®

#### °CureWrap™

Dimensions: 260mmW x 625mmD x 940mmH / 10.23"W x 24.6"D x 37.0"H (Including handle)

Weight: 35kg (77lb)

Control System: microprocessor, feedback control

Electrical characteristics: 230V/50Hz, 120V/60Hz

Core and surface temperature sensors: YSI 400 series, disposable or reusable

Set point temperature range: 30°C - 40°C (86°F - 104°F)

Screen display: core, surface, set point temperature, graphic display of core temperature, water flow status

Length of connecting tubes: 2.5m (98 in)

Certifications: CE, FDA clearance

Water type: tap water only

Use with: CritiCool® Controller

Design: single piece, one size for adults

Vast models for infants and pediatric populations

Storage temperature: 10°C - 27°C (50°F - 81°F)

Material: biocompatible, latex-free and anti-static

Certifications: CE, FDA listed

CureWrap 3500 - adult size

CureWrap 3521 - 4Kg-7Kg

CureWrap 3518 - up to 4Kg

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FDA Clearance

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CE 0473

# CritiCool®

## Cooling with Care



## The Non-Invasive Approach to Cooling Therapy



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## Cooling Therapy for Tissue Protection

Neuro-protection by hypothermia has taken a giant step into the future. Today, cooling therapy is used for various indications following the process of ischemia. The protective effects of hypothermia are due to:

- Reduction of cerebral metabolism, oxygen consumption and glucose demand
- Slowing of the destructive neuroexcitatory process
- Decrease of free radical production
- Stabilization of the blood-brain-barrier
- Reduction of the inflammatory process



## Clinical Studies Show that Cooling Improves Neurological Outcome and Reduces Mortality

**Cardiac Arrest** – Hypothermia has become routine practice in medical centers worldwide, after it has been proved in many clinical trials that Hypothermia improves neurological & functional outcome and reduces mortality in patients that suffered from VF.<sup>1,2</sup> Today, ILCOR and AHA recommend use of therapeutic hypothermia for patients after cardiac arrest.<sup>3</sup>

**Traumatic Brain Injury (TBI)** – Studies have shown that hypothermia induction results in improved patient outcome by significantly reducing ICP and limiting secondary brain injury after severe head trauma.<sup>4</sup>

**Birth Asphyxia and Ischemic Encephalopathy** – there is now evidence from multicenter randomized trials that induced hypothermia can significantly improve survival and improve neurodevelopmental outcomes without severe disability of infants with Hypoxic Ischemic Encephalopathy (HIE).<sup>5</sup> The European Guidelines for Resuscitation state that "newly born infants born at term or near-term with evolving moderate to severe hypoxic-ischemic encephalopathy should, where possible, be offered therapeutic hypothermia" thus making this treatment standard of care for this indication.<sup>6</sup>

References:  
1. N Engl J Med. 2002; 346(8):549-56; 2. N Engl J Med. 2002; 346(8):557-63 3. Circulation. 2003; 108:118-121.  
4. CJEM. 2010;12(4):355-64. 5. N Engl J Med. 2009; 361(14):1349-58 6. Resuscitation 2010; 81:1389-1399

## The Optimal Solution for Cooling Therapy

### Introducing CritiCool® - The Non-Invasive Approach to Cooling Therapy

With **CritiCool®**, cooling is your therapy of choice. Set the controller to the desired temperature, apply the *oCureWrap* garment and commence treatment. Simply SET, WRAP & COOL!

Using feedback from the patient's core and skin temperature sensors, the proprietary control algorithm responds to any temperature change. Following the cooling phase of treatment, **CritiCool®** precisely re-warms the patient to normothermia.



### High heat exchange by 3-dimensional surface coverage

Our flexible single piece *oCureWrap*, provides three-dimensional surface coverage that maximizes energy transfer. This breakthrough technology provides effective induction and maintenance of cooling.

### Precise control of patient core temperature

**CritiCool®** offers precise cooling to programmed target temperature, by applying a temperature control algorithm. Continuous temperature feedback enables system self-regulation. Adjustment and monitoring temperature is automatic, therefore, significantly reducing staff time and labor.

### Convenient and Easy to use

Patient cooling is achieved in three steps:

#### Set, Wrap & Cool.

- **Set** Intuitive user interface
- **Wrap** User friendly *oCureWrap*  
Quick patient application  
Simple and convenient patient care
- **Cool** Automatic and precise patient temperature control

### Controlled and Gradual

Controlled re-warming is an important step of any Hypothermia treatment in order to significantly reduce a rebound increase in Intracranial Pressure. **CritiCool®** actively controls the process of re-warming and achieves a gradual increase in temperature.

**CritiCool®** is the optimal solution for early initiation of cooling therapy within minutes upon patient arrival.

### Hypothermia after cardiac arrest

