



Cool Hand Luke: Body Cooling System

Status

The Army seeks a partner interested in commercializing this technology

Patent

Application:

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Title:

Arm Immersion Cooling Apparatus And Method

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The Technology

A healthy body temperature can be difficult to maintain when physically active in a hot environment, potentially leading to heat stroke or other dangerous heat-related illnesses.

The Cool Hand Luke is a lightweight, portable apparatus that reduces a person's core temperature by transferring heat through the hands and forearm into cold water. Cool Hand Luke can accommodate up to 6 adults at a time; multiple ones can be deployed for larger groups.



Application

Cool Hand Luke can be used in high risk heat environments to decrease the incidence of heat-related illnesses by reducing the body's core temperature, therefore extending heat tolerance and increasing total work time. It is ideal for local and professional sports teams, athletic/endurance events such as marathons, training situations, firefighting, and any strenuous activity commonly performed in hot environments.

**Available
For
Licensing**

Benefits

- Reduces body temperature 1.0°C in 3-10 minutes
- Minimizes heat-related illnesses
(Exertional Heat Stroke is usually among the top 3 causes of death in athletes)
- Allows for easy transportation, setup, and storage
- Accommodates 6 adults at a time
- Integrated thermometer monitors water temperature
- Assembly and use instructions stenciled on the waterproof, flexible fabric
- Holds up to 48 gallons of water, equaling 6 inches of water in the reservoir
- Legs adjust to provide ideal height for users
- Inexpensive to manufacture
- Successfully implemented in military settings

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