

USING THE FLEXIFREEZE® ICE VEST

There are many methods for effectively minimizing heat stress: Engineering Controls, Administrative Controls...and Personal Cooling Products. Each situation is unique and must be approached individually for each environment, with the **ultimate goal of preventing the body core from overheating**. This is what the Patented FlexiFreeze® Ice Vest is capable of achieving by utilizing water in specially formulated industrial strength film compartments for thousands of freeze/thaw cycles. The FlexiFreeze® Ice Vest was originally designed specifically for the melting crew in the Foundry Industry in Wisconsin. Although it was designed for use under full body protective gear, it is also extremely effective for cooling the body core in many other situations.

HOW DOES IT WORK?

The patented FlexiFreeze® Ice Vest utilizes water panels, that when frozen solid remain flexible to fit snugly against the clothed body core. As the vest is worn and phase change takes place, heat is pulled from the body core. Because the water remains intact during the change in phase process, the body core remains DRY and cool. WATER (when frozen) removes 34% MORE heat during phase change than poly glycol gels, paraffin's or ANY phase change material currently available on the market. Science has yet to create a more effectual material for pulling heat from the human body core than frozen WATER. When the flexible ice panels reach the point of ineffectiveness (98 degrees), they can be returned to the freezer and replaced with another set of frozen panels. Depending on the circumstances, one set of panels can keep the body core safe from heat stress for several hours. Two or three sets of frozen panels can keep a worker in a high heat environment cool, dry and SAFE throughout the day.

The FlexiFreeze® Ice Vest is cost effective, easy to use, convenient and light weight. The 3.5 pounds are scarcely noticeable as the lightweight insulated exterior fabric keeps the ice focused on removing heat from the body core and not from the environment. It is designed for comfort and complete free range of motion. The patented design was created so that one size will fit from XS to 6X comfortably. Hi-vis and FR ratings are currently being tested and designed. Velcro or zipper front available. Please contact custsvc@marandaenterprises.com or call 262-236-3970 for more information.

The FlexiFreeze® Ice Vest is intended to manage the rising body core temperature in high heat situations only

INSTRUCTIONS FOR USE:

FREEZE/STORE: Place the two side panels and back panel in the freezer. The liquid compartments in FlexiFreeze® are filled with pure WATER, so freezing overnight (approximately 12 hours) is required. If upon removal from the freezer, individual cubes do not appear fully frozen, slightly tap the unfrozen cubes to facilitate crystallization and return panels to complete freezing. If you will be using several panel sets during the day, freeze all Flexifreeze® panels and Ice (including any neck wrap ice and extra ice sheets for transport) before use. Panels should be stored in freezer when not in use. Remove panels from freezer and attach to vest when personal cooling is required.



FREEZE



PLACE PANELS IN VEST

FITTING: The FlexiFreeze® Ice Vest is created to fit all body types and sizes from size XS to 6XL. The vest can be adjusted at shoulders via the hook and loop straps and adjusted with the elastic cords located at each side. Excess elastic cord should be secured inside the hook and loop flaps on the bottom front of the vest for safety. At least one shirt should be worn underneath the vest to avoid direct contact of ice panels with skin. Vest should also be adjusted to fit snugly against the front and back of the wearer so that ice panels are best able to pull heat from body core.



FITS XS to 6XL



SECURE EXTRA BUNGIE

CARE of VEST/PANELS: The FlexiFreeze® Ice Vest is washable! Remove bungee cords from vest sides and remove sections of Flexifreeze® ice from panels by opening hook and loop tabs on panels to set aside ice. Machine wash vest and panels on gentle cycle. Do not use bleach, Tumble dry on low setting. Do not iron. Do not dry clean. Depending on type and location of use, panels can also be cleaned with an alcohol spray and dried before freezing.

CARE OF FLEXIFREEZE ICE: Flexifreeze® water cubes can also be cleaned with mild soapy water and dried with a soft cloth. FlexiFreeze® ice is created with specially designed film for thousands of freeze and thaw cycles. Additional 88 cube sheets of Flexifreeze® can be cut to size with a scissors and are available at

Maranda Enterprises LLC
Mequon, WI 53092 USA

30 Day Warranty
Maranda Enterprises warrants this product to be free from manufacturer defects in material and workmanship. Liability under this warranty is limited to replacing product found to be defective within 30 days of the date of purchase

Vest made in China

www.iceveststore.com

FlexiFreeze® is made in USA

WHAT IS HEAT STRESS?

Whether required to work in hot environments for extended periods or susceptible to heat stress due to other factors, heat stress is a common problem encountered in many situations. **Symptoms** from poor decision making, impaired judgement, headache, nausea, confusion, heat collapse and even death can occur due to overheating of the body core. Heat Fatigue, Heat Exhaustion, and even Heat Stroke are all potential results in allowing the body core temperature to rise beyond the point of safety. Some of the causes of heat stress and how heat stress might be mitigated by the use of the FlexiFreeze® Ice Vest are addressed here.

WHERE MIGHT I BE EXPOSED TO HEAT STRESS?

Any process or job site that is likely to raise the persons deep core temperature (often listed as higher than 100.4 degrees F (38°C)) raises the risk of heat stress. Operations involving high air temperatures, radiant heat sources, high humidity, direct physical contact with hot objects, or strenuous physical activities have a high potential for inducing heat stress in the body core.

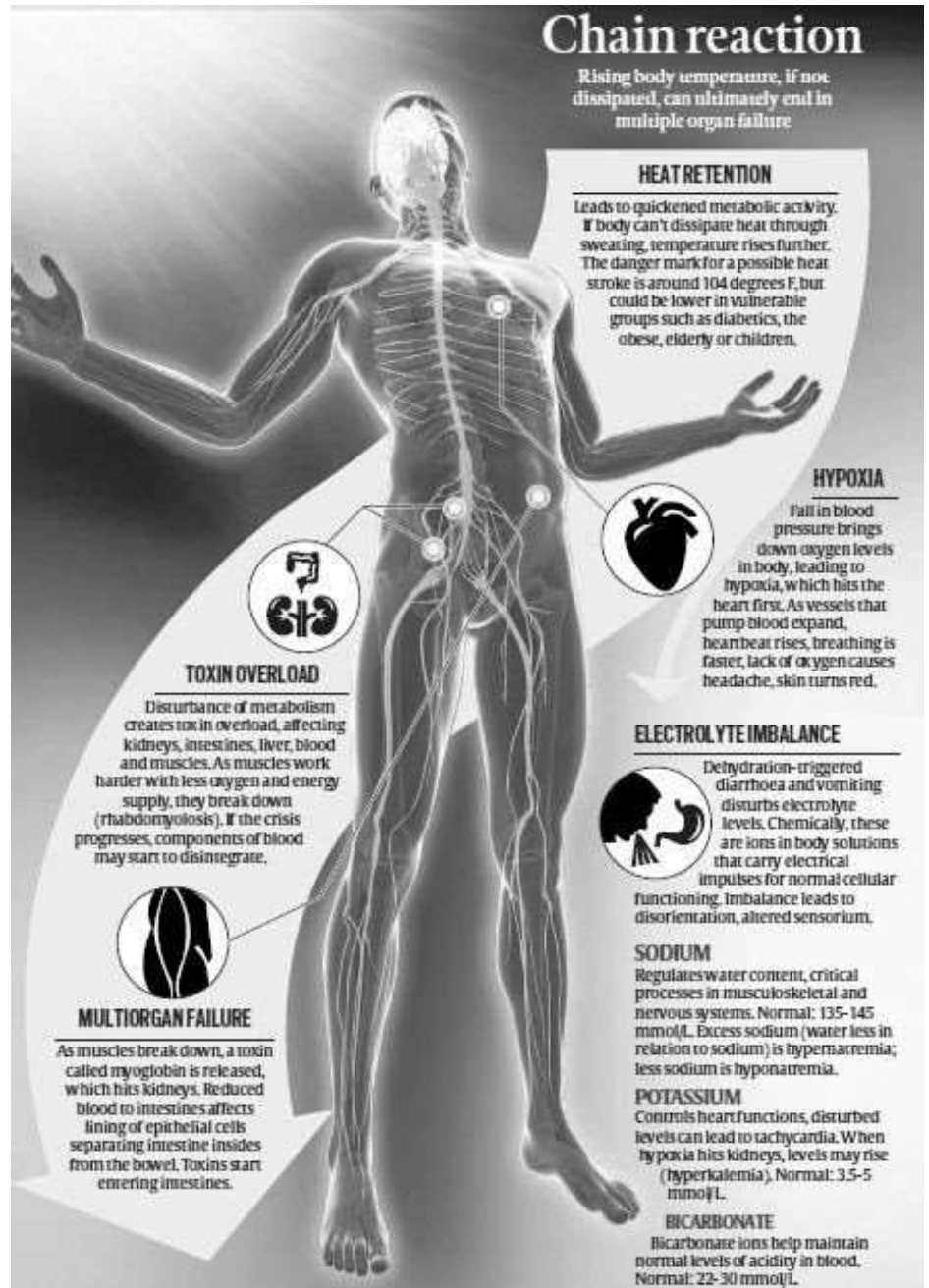
Indoor operations such as foundries, brick-firing and ceramic plants, glass products facilities, rubber products factories, electrical utilities (particularly boiler rooms), bakeries, confectioneries, commercial kitchens, laundries, food canneries, chemical plants, mining sites, smelters, and steam tunnels are examples of industrial locations where problems can occur.

Outdoor operations conducted in hot weather, such as construction, refining, under mascot wear, asbestos removal, hazardous waste site activities, and emergency response operations, especially those that require workers to wear semi-permeable or impermeable protective clothing, are also likely to cause heat stress.

ARE THERE ADDITIONAL CAUSAL FACTORS FOR HEAT STRESS?

- ◆ **Increased age, weight, physical activity and degree of physical fitness contribute to heat stress**
- ◆ **The degree of acclimatization, metabolism, dehydration, use of alcohol or other drugs and medications all can contribute to heat stress**
- ◆ **A variety of medical conditions such as hypertension, Multiple Sclerosis and hormonal issues should be taken into account**
- ◆ **The type of clothing worn is important**
- ◆ **Prior heat injury predisposes an individual to additional injury. Individual susceptibility varies.**
- ◆ **In addition, environmental factors including the ambient air temperature, radiant heat, air movement, conduction, and relative humidity all affect an individual's ability to respond to heat.**

Although the conditions of each individual circumstance differ, the **prevention of heat stress** on the body core is the goal. Managing the **REMOVAL** of heat from the body core as the core temperature is rising in a heat stress circumstance diminishes the risk of **HEAT STRESS** on the body altogether. The FlexiFreeze® Ice Vest, when used appropriately can **PULL** heat from the body core to potentially **PREVENT** heat stress and heat related illness from occurring.



Pritha Chatterjee | New Delhi | Updated: May 29, 2015 8:34 am - See more at: <http://indianexpress.com/article/explained/explained-toxin-overload-how-heat-kills/#sthash.HFNlxb1.dpuf>