



TOOLBOX TALK



DID YOU KNOW?

Evaporative cooling bandanas, when used correctly, can be **more** effective than a cooling vest.

The Benefits of Cooling Clothing

With rising temperatures an almost certainty, heat-related illnesses and fatalities are becoming more common.

Cooling vests have been available for many years. Originally constructed to hold cool packs in sleeves sewn into the vest, they were bulky and heavy. Many advances have been made in seeking comfort from the heat and protection from heat-related illnesses.

One such development is the material used to construct cooling clothing known as heat-conductive polyethylene (PE). PE is a nano-constructed material that *conducts* heat away from the skin with or without the presence of moisture. The benefit is that you automatically feel cool when wearing these materials, whether you have been sweating or not. PE is used in all types of work wear, from full bodysuits to sleeves and gloves.



Cooling Bandanas

A study conducted by the National Institute of Health and published in the National Library of Medicine has shown that evaporative cooling bandanas, when used correctly, can be **more** effective than a cooling vest.

The bandana used in the study (the Chill-Its® 6700CT Evaporative Cooling Bandana; Ergodyne, St. Paul, MN, USA) is constructed with polyvinyl acetate (PVA) material and weighs less than a pound.

Participants saturated the bandana in water for 1 minute to activate it, twirled the bandana to remove excess water, and tied the bandana around their head or neck, repeating the steps as needed to maintain the cooling effect.

The bandana maintains its cooling effectiveness for ~4 hours due to a high-water absorption capability and resulting efficient water evaporation.



Got a suggestion for
a future topic?
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mmeade@iamu.org