



IT'S JUST A BOX

It's one of those things that you scratch your head about and ask, what, [no one thought of this before](#)? Issue - keeping units of blood cool while conducting critical field surgery where there's no power. Standard practice - using Vietnam-era cardboard boxes and styrofoam technology to keep blood at the required 38-50 degrees Fahrenheit for about eight hours. Question - has anyone, in this day of camping enthusiasts and high-tech sporting gear, thought that there might be a better solution?

Answer - yes, thanks to a Minnesota-based firm called [Minnesota Thermal Science, LLC](#). Bill Mayer, the chief scientist there, designed a portable 10-inch square container that uses insulation similar to that used in store-bought coolers and a liquid similar to those freezer packs that people use to keep their mayo from spoiling at picnics. The result? A container that kept red blood cells good for more than 97 hours at minus 9 degrees Fahrenheit, for more than 78 hours at 105 degrees Fahrenheit, and for more than 121 hours at room temperature. It doesn't require batteries, ice, or electricity.

Mayer says in the article, "It's not really all that complicated. ... It's not real exciting. It's just a box." The simplicity of the design is what he believes is the rationale why larger scientific labs had not already invented it. The Army leadership disagrees, and is giving one of its top ten Greatest Invention Awards to the firm. [The other awardees are listed here.](#)

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