



The mission of the Korey Stringer Institute, housed at the University of Connecticut, is to provide research, education, advocacy and consultation to maximize performance, optimize safety and prevent sudden death for the athlete, warfighter and laborer. The Korey Stringer Institute was established in April 2010 in the memory of Korey Stringer, an offensive lineman for the Minnesota Vikings who passed away from exertional heatstroke in August 2001. Our goal at KSI is to reduce catastrophic injuries related to the top causes of death in sport.

Best practice for assessing and confirming a suspected exertional heat stroke victim is obtaining a rectal temperature, a method supported by over 8 published position statements, taskforces or roundtables from leading sport medicine organizations on the topic.(1–8) No other temperature devices have been validated for use with exercising individuals.

The DataThermII device and thermometer has been our primary recommendation for assessing and treating exertional heat stroke due to its cost-effectiveness, portability, and continuous monitoring capability with its flexible thermistor. However, given its current unavailability, many medical professionals are urgently seeking alternative solutions. KSI reached out to RG medical and were told that "due to supply chain issues, inability to produce prototypes, and quality controls" that they anticipate devices and thermometers will not be available until the end of 2024. Since this response, we have recommended to athletic trainers seeking the DataThermII devices that if they suspect an EHS, they should use a device such as a Welch Allyn SureTemp with rectal thermometer adapter (copy of statement on the last page).

Athletic trainers working in high schools, colleges, professional sports organizations, the military, public safety municipalities, and major corporations provide critical medical care, and it is essential they have a tool that will allow them to provide care in line with best practices when assessing and treating a patient with exertional heat stroke. We have received numerous reports from athletic trainers struggling to acquire rectal thermistors that allow continuous monitoring. We are actively seeking solutions to address this shortage.

The significance of addressing this gap cannot be overstated. Our estimates indicate:

1. Nationally there are 21,373 secondary school athletic programs
2. There are roughly 11,121 schools with athletic training services
 - a. 6,493 of these have confirmed their availability of having or not having a rectal thermometer
 - i. 4,497 schools HAVE a rectal thermometer (69%).
 - ii. 1,996 schools confirmed they do NOT have a rectal thermometer.
 - b. This leaves 4,628 schools that have not confirmed their athletic training services or rectal thermometer availability. If the same rate of rectal thermometer availability (69%) is applied to these schools – we can conservatively estimate that another 1,435 schools do NOT have a rectal thermometer.
3. In total – assuming the 10,252 schools without athletic training services do NOT have a rectal thermometer, when added to the previous estimates, this results in an estimated **13,683 (64%) secondary schools with athletics programs that do NOT have a rectal thermometer.**



4. This estimate fails to also account for all the collegiate athletic programs, military settings with athletic trainers, mass medical tent providers, and emergency medical providers, potentially affecting millions of individuals and thousands of athletic trainers who would also need this solution.

We support all efforts to make cost-effective, portable, valid, rectal temperature devices with continuous monitoring available. Access to such equipment is crucial for saving lives.

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“One human life is too big a price for all the games of the season.” – James Roscoe Day



Information on Current Alternatives to a Flexible Rectal Thermistor:

We've received a lot of questions about the availability of the DataThermII device and probe. KSI reached out to RG medical on behalf of our followers and were told that "due to supply chain issues, inability to produce prototypes, and quality controls" that they anticipate devices and probes will not be available until the end of 2024.

In the meantime, if you suspect an EHS, we recommend using a device such as a Welch Allyn and their rectal adapter (links below). This adapter can be used to assess rectal temperature to diagnose EHS, then be removed before placing patient in an immersion tub for treatment (it is not a flexible probe so this is important).

Leave the patient immersed for 15 minutes and then remove the patient and reassess rectal temperature. If the temperature is above 103°F, place the patient back in the tub, if below, the patient can now be transported. (remember you can anticipate how much time you will need to cool the patient with about a 1 degree F drop for every 3-4 minutes of cooling with cold water immersion – when you reassess and still have an athlete at 105°F, you know you will likely only need 6-8 minutes of additional cooling time before you reassess temperature).

Welch Allen device: <https://www.schoolhealth.com/welch-allyn-suretemp-plus...>

Adapter: <https://s.uconn.edu/welchallen>

References:

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8. Casa DJ, Anderson SA, Baker L, Bennett S, Bergeron MF, Connolly D, et al. The inter-association task force for preventing sudden death in collegiate conditioning sessions: best practices recommendations. *J Athl Train.* 2012 Aug;47(4):477–80.