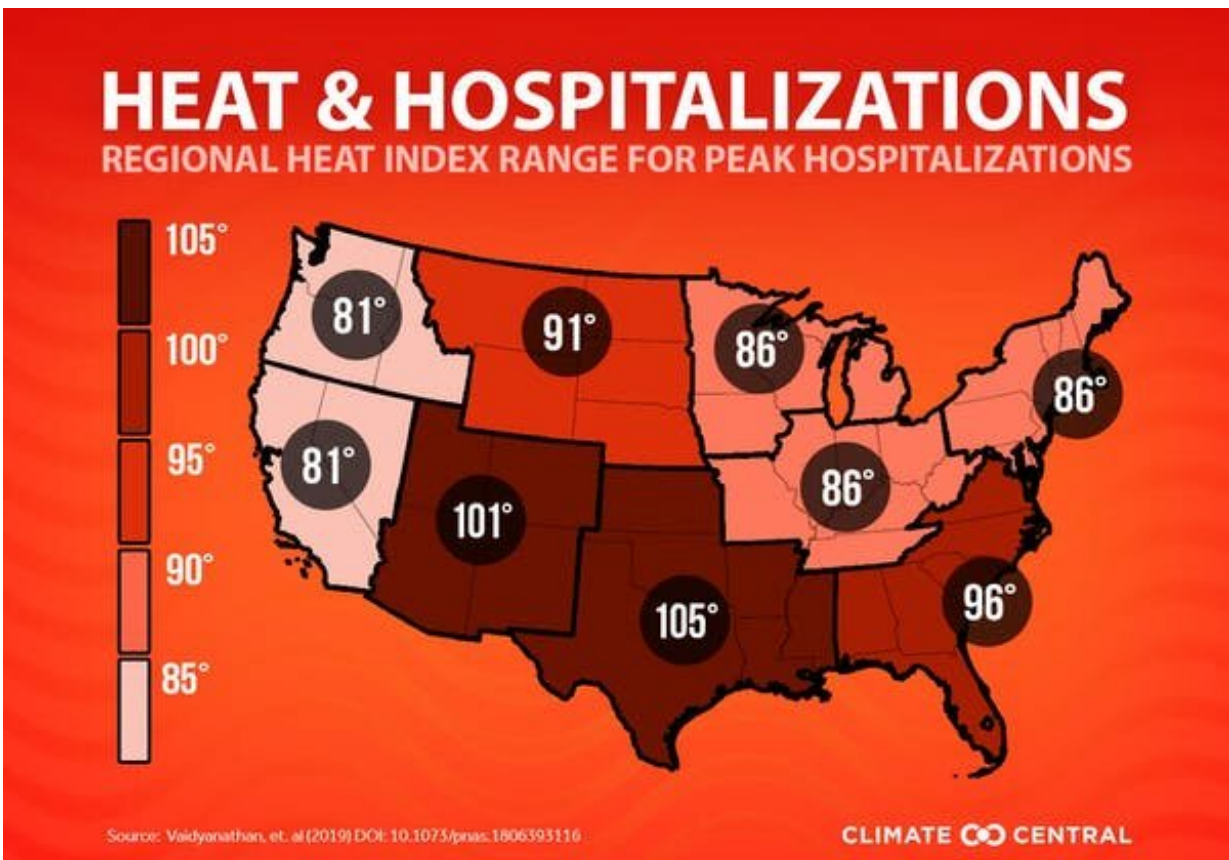


Too hot to handle: Climate considerations for youth sport during the hottest years on Earth

July 19 2022, by Jessica R. Murfree and Natasha Brison



The heat index is a combination of heat and humidity. Heat-related hospitalizations begin rising at lower heat index values in normally cooler parts of the country. Credit: [Climate Central](#), [CC BY-ND](#)

At least [50 high school](#) football players in the U.S. have died from heat

stroke after falling ill on the field in the past 25 years. And high school athletes in other sports are not immune from the risks—[female cross-country athletes](#) are twice as likely to suffer from heat-related illnesses as athletes in any other high school sport.

The numbers are especially shocking when you consider that [heat-related illnesses and deaths are entirely preventable](#).

While sports equipment has improved over time to protect against concussions, young [players and college athletes are](#) facing [increasing risks from rising heat](#).

We study sport ecology and legal aspects of sport. With [summer temperatures](#) rising, we believe many youth sports leagues and school districts will need to aggressively update their practice rules and [heat policies](#) to keep their players safe. We suggest particular attention be paid to [low-income](#), minority neighborhoods and regions that can get excessively hot.

Heat risks in youth sports

Each year, summer marks the return of discussions of just how severe the sweltering heat is. [Nine of the 10 hottest years](#) on record globally have been since 2012, and this year's late-spring and early-summer heat waves were previews for what forecasters warned would be a [brutal summer of 2022](#).

Yet many interscholastic and preparatory sport summer camps have kids running hard through the summer months, sometimes on days that reach [triple-digit temperatures](#).

In a period of rapid [climate change](#), ensuring [heat risks](#) remain preventable is critical.

Heat is the most frequent [climate-related killer in the United States](#), with more deaths associated with it than tornadoes, floods and cold temperatures. And days of extreme heat and humidity are now surpassing concerning levels for human health. Overall, the Centers for Disease Control and Prevention reported an average of [more than 700 heat-related U.S. deaths](#) each year between 2004 and 2018. Some of the [hottest years ever recorded](#) have happened since then, and preliminary data detailing heat deaths in the U.S. indicates [the rate increased 56%](#) from 2018 to 2021.

Extreme heat due to [climate change is making sport participation progressively challenging](#).

[For high school athletes](#), the prevalence of extreme heat is leading to [escalating heat-related](#) illness, injuries, hospitalizations and deaths. In fact, [heat stroke](#) is a [leading cause of death in sports](#).

Unsurprisingly, the greatest [concentration of heat illness](#) in young athletes [occurs in August](#): the back-to-school and back-to-sports season.

When heat risks trigger lawsuits

Recognizing the warning signs can be especially challenging for children and teens. Young people are still learning how to communicate their feelings and experiences, and that can be more difficult in sport environments that promote toughness and perseverance. Ultimately, young athletes must trust adults to protect them.

Evidence suggests the [prevalence of exertional heat stroke](#) among high school athletes is largely due to young athletes' [not acclimatizing](#), or physically adjusting to the heat, particularly in the first few weeks of practice. Although heat policies related to temperature and hydration exist at the high school level, they aren't always enforced. And they may

[need to be improved](#) to [reflect the warming climate](#) given the rate of heat illness.

As a result, parents and guardians are faced with how best to advocate for their children.

In some cases, families have sued after heat injuries, both to recover money for their child's suffering and to drive change [in the hope that no other child will have to endure what others have](#). However, the heat injuries continue to rise.

Adults' responsibility to keep children safe in sport settings becomes blurry as the growth in [legal challenges](#) related to heat illness demonstrates a disconnect between adults' [duty of care](#) and athletes' well-being. [Negligence](#) is a common claim associated with these lawsuits. Allegations of child endangerment or wrongful death can lead to civil or criminal legal disputes. But can reactive legal action prevent these heat injuries in the long run?

The fact that heat injuries are preventable is often why legal cases alleging negligence and wrongful death [are successful](#). Still, heat stress, heat exhaustion, heatstroke and sunstroke are not uncommon in sports. Medical researchers have described heat illness among athletes as [one of the most prominent pieces of evidence](#) of climate change's hazards and effect on sport.

Climate injustice for young athletes

Extreme heat can also enhance existing injustices and inequities.

For example, [non-Hispanic Black Americans suffer heat-related deaths at a rate higher than the U.S. average](#). That doubles for [Indigenous and Native Americans](#), who report the highest death rate from heat.

For athletes, the consequences of extreme heat can further complicate environmental and climate injustice. For instance, racial minorities and those in lower socioeconomic brackets have greater chances of living in the warmest areas, including [urban heat islands](#), where heat trapped by pavement and buildings can make temperatures several degrees hotter than the city average.

At the same time, efforts are underway to diversify the sport landscape and provide [equitable access to sport and recreation for all people](#). A vicious cycle spins between [social justice](#)—efforts to diversify sports—and [environmental and climate justice](#), in which the most vulnerable communities face the greatest climate harm and health risks but are underresourced and ill-equipped to adapt to the changing climate.

Moving forward

Sports leagues and athletes have taken a stand on many social issues, but they are often [reactive](#) when implementing and advocating for change.

For instance, leagues implemented [regulatory policies regarding brain safety](#) only after countless tragedies. People began to focus on traumatic brain injury and chronic traumatic encephalopathy after the [deaths of numerous NFL players](#) and [a blockbuster film](#).

The heat-related deaths of [collegiate and NFL football players](#), notably Minnesota Vikings player [Korey Stringer](#), have drawn some attention to the risks. Tokyo 2020 [Olympians](#) and FIFA World Cup [organizers](#) have cited the need for regulatory changes because of the effects of extreme heat on [athlete](#) health. But it's often [only after a tragedy](#) that improvements are made to protect [young athletes](#) from heat illness.

The sport sector [can make immediate](#) practical and policy-related [adaptations to extreme heat](#) to protect children. These include modifying

practice schedules, increasing the number of water breaks, revising athletic heat policies to reflect climate change, and implementing procedures to ensure compliance by coaches and athletic administrators.

This article is republished from [The Conversation](#) under a Creative Commons license. Read the [original article](#).

Provided by The Conversation

Citation: Too hot to handle: Climate considerations for youth sport during the hottest years on Earth (2022, July 19) retrieved 23 June 2024 from <https://phys.org/news/2022-07-hot-climate-considerations-youth-sport.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.