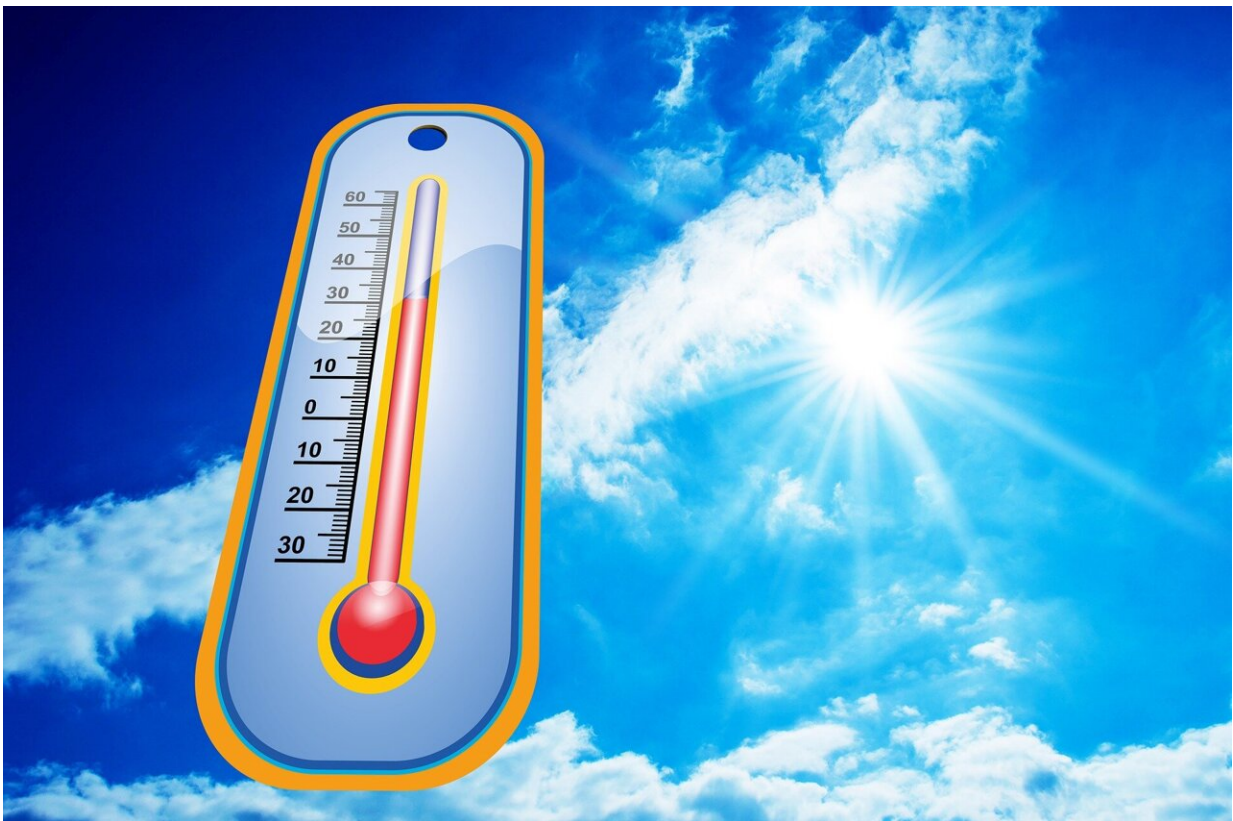


Sports programs in states in northern climes face a new opponent: Scorching Septembers

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On a recent afternoon, it was a crisp 70 degrees on the football field at the high school in this northwestern Montana community less than 200 miles south of the U.S.-Canada border.

Vikings head coach Jim Benn was running his team through drills in the pristine fall weather, without much interruption. Just a couple of weeks earlier, though, players had needed frequent water breaks as they sweated through temperatures in the low to mid-90s, about 15 degrees higher than average for the time of year.

Although temperatures have started to drop now that autumn is underway, Montana and many other states in the northern U.S. are getting hotter—and staying hot for longer. August is when many high school sports ramp up, and this year's was either the hottest on record or close to it for many communities across Montana, according to the National Weather Service and other meteorologists. The [heat wave](#) stretched into September, and at least six Montana cities broke the 100-degree mark during the first half of the month.

This August was the hottest on record for the nearby states of Idaho, Washington, and Oregon. Nationwide, this summer was the third-hottest on record, according to the National Oceanic and Atmospheric Association.

Health experts and researchers say states—especially the states in the northern U.S., such as Idaho, Maine, Montana, and North Dakota—aren't adapting fast enough to keep high school athletes safe. Students and their families have sued schools, accusing them of not doing enough to protect athletes. Many states that have taken action did so only after an athlete died.

"Between high school and college, we're losing roughly six athletes each year to exertional heatstroke, and the majority of those are high school athletes," said Rebecca Stearns, chief operating officer at the University of Connecticut's Korey Stringer Institute, which is named after a Minnesota Vikings player who died from heatstroke in 2001. The institute studies and tries to prevent the condition.

The true number of heat-related deaths could be higher, she said, because death certificates aren't always accurately filled out. Exertional heat illness is the second-leading cause of death for high school and college athletes, behind cardiac arrest, she said.

In Bigfork, Benn said he hadn't seen one of his athletes experience an exertional heat illness—such as [heat exhaustion](#) or heatstroke, which can cause fainting, vomiting, and even death—during his nearly 30-year coaching career in Montana until last year. An athlete became overheated at an early summer football camp during the record-shattering 2021 heat wave.

"We immediately got water on him, got him cooled down," he said.

The player recovered after he was sprayed with a hose. Benn said he didn't have an immersion tub filled with ice water on hand, which is what Stearns said is the recommended treatment.

"It is exactly why we need standard policies that have medical best practices incorporated," Stearns said.

The Korey Stringer Institute ranks all 50 states and Washington, D.C., based on how well they follow best practices for preventing and responding to exertional heat illness among high school athletes, as well as other health risks such as cardiac arrest. Montana is 48th on the list, followed by Minnesota, Maine, and California.

California is last, according to the institute's report, because it's the only state that doesn't regulate high school athletic trainers, who are generally responsible for the health and safety of athletes. Stearns said the institute is working with California sports officials, who are pushing for laws that require licensing of athletic trainers.

States in the northern U.S. dominate the bottom third of the institute's rankings. Stearns said many states the institute has approached about improving heat safety think it isn't an issue or resist some policies because implementing them could come with a hefty price tag.

But some of the efforts don't cost a penny, she said. At Bigfork High School, for example, Benn has implemented a three-day acclimatization period, without football pads, when his players return to the field in early August. "That's really low-hanging fruit, in my perspective," Stearns said.

Stearns added that most heat-related illnesses occur during the first days of practice, which are typically the hottest and when athletes are not accustomed to exerting themselves in the heat. But she said the state's [high school sports](#) association should mandate acclimatization periods.

Montana and many other states also don't have a system dictating when practices need to be modified—for example, by removing pads or reducing the length and the number of workouts—or canceled altogether, said Stearns. Policies that require an emergency plan for responding to an exertional heat illness are lacking in many northern states, as well.

Stearns and other researchers, such as Bud Cooper at the University of Georgia, said states should use what's known as the "wet bulb globe temperature"—which accounts for air temperature, humidity, and radiant heat from surfaces such as turf that absorb sunlight—to make those determinations, rather than the heat index. The heat index doesn't account for radiant heat, which increases the risk of developing heat illness. The foundation of the National Federation of State High School Associations said in February that it was sending 5,000 of the special thermometers to high schools across the country.

Stearns said that research suggests acclimatization periods reduce the number of exertional heat illnesses by as much as 55% and that states that have used the wet bulb globe temperature to mandate changes to practice have seen an 80% reduction.

In Georgia, Cooper's work documenting heat-related deaths among high school athletes led to sweeping policy changes in 2012. Since the policy shift, Georgia has gone from being the state with the highest number of heat-related deaths among high school football players to having no deaths.

Researchers such as Cooper have begun to provide regional policy guidelines based on the local average wet bulb globe temperatures to help states understand the risks for high school athletes and give them a starting point for making policy changes.

New Jersey was among the early adopters of the wet bulb system among states in the northern U.S. when it approved a law in 2020 requiring school districts to buy the thermometers. The state also requires hundreds of schools to put cold immersion tubs on-site when temperatures reach a certain level. The state is now second in the institute's rankings of sports safety policies, behind Florida and ahead of Georgia.

In the Pacific Northwest, Oregon and Washington have policies that mandate changes to school sports practices based on the heat index, not the wet bulb globe temperature. Heat and sports safety researchers say that's better than nothing.

The Montana High School Association, which regulates high school athletics, has implemented heat guidance that allows referees to call for extra breaks during football or soccer games, said executive director Brian Michelotti. The association also asks other sports, such as cross-

country running, to schedule meets early in the day.

While Montana health officials say the state has never documented a death related to heat illness among the state's high school athletes, the historic heat waves over the past two summers have athletic officials considering additional precautions. "It really has triggered us to have more discussions about that and really come back and revisit with some sport science committees," Michelotti said.

He said any policy changes would have to be approved by the association's seven-member board and wouldn't happen until at least next year.

Heat and sports safety experts such as Stearns at the Korey Stringer Institute said adding statewide policies and mandates saves lives by ensuring that all coaches and schools are following best practices before a death happens.

"One life is too much a price for all of the games in a season," she said.

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