

Bike Helmet a Must Even in Heat *Los Angeles Times*

Bike Helmet a Must Even in Heat, Study Says Safety: Researchers test the belief that a bicyclist riding on a hot, humid day is cooler without a helmet. They find the bareheaded rider neither feels nor is in fact cooler.

By IRA DREYFUSS, ASSOCIATED PRESS

Los Angeles Times Sunday August 10, 1997 Bulldog Edition Part A, Page 17 Type of Material: Wire

WASHINGTON--When the day is broiling hot and humid, bicyclists are tempted to go bareheaded in hopes of a cooling breeze.

Don't, a researcher says. Riding without a bike helmet won't make you feel any cooler, and it will leave you more vulnerable to a head injury, said Melinda Sheffield-Moore of the Shriners Burns Institute in Galveston, Texas.

"There's no reason--no reason--for cyclists not to wear helmets," said Sheffield-Moore, who checked riders' physical and psychological reactions to heat and humidity with and without helmets.

Her study, done at Ball State University in Muncie, Ind., was published in *Medicine and Science in Sports and Exercise*, the American College of Sports Medicine's journal.

Sheffield-Moore and her colleagues had 14 college-level competitive riders pedal stationary bikes for 90 minutes in 95-degree heat and 70% humidity as fans blew across them to simulate airflow on a ride of 20 miles per hour.

The riders were working at 60% of their aerobic capacity. This ordinarily is well within the ability of trained aerobic athletes. But lab conditions were set for the equivalent of training on a very steamy summer day, and it was no fun ride, Sheffield-Moore said.

"We essentially had these folks ride in an oven," she said. "Even at the [aerobic] level these folks were at, it was a difficult, difficult ride." Conditions were tough on even the researchers in the room to collect data, she said.

The researchers measured internal temperature, skin temperature and head temperature in rides with and without helmets. They also had the riders rate how hot their heads and bodies felt with and without helmets.

The scientists found no difference in the riders' temperatures or in the riders' perceptions of those temperatures, with or without helmets.

This indicates that even elite riders needn't fear their performance will suffer if they wear helmets in the heat, Sheffield-Moore said.

Current helmet models, which have big air holes, apparently allow the head to shed heat through the normal cooling process, the article said.

The study also measured the riders on a similar ride in 95-degree heat but without the punishing humidity. The temperatures and the riders' perception of heat were the same with or without the helmets. But all those measures were lower than they were in high humidity, the study found.

This was in line with earlier research that had measured reaction to heat but not humidity.

Helmets don't make a difference in heat retention primarily because they don't cover much body surface, said Kent Pandolf, senior research scientist at the U.S. Army Research Institute for Environmental Medicine in Natick, Mass.

"The helmet is designed really not to encumber a lot of the head," said Pandolf, who had reviewed the research. Even though the body loses about one-quarter of its heat through the head and neck, a helmet only rests on the scalp. And much of the scalp area is under the helmet's air holes, he said.

Pandolf also considered the lab's simulated weather to be realistic. "We just had that up here for a stretch of three or four days," he said. "That's a real-world condition."

Ed Becker, executive director of the Snell Memorial Foundation, a North Highlands, Calif., organization that sets helmet safety standards and certifies helmets, thought helmets might even be cooler than going bareheaded.

"In bright sunlight, you might be carrying a bit of shade with you," he said.

Copyright, The Times Mirror Company; Los Angeles Times, 1997.

IRA DREYFUSS, Bike Helmet a Must Even in Heat, Study Says; Safety: Researchers test the belief that a bicyclist riding on a hot, humid day is cooler without a helmet. They find the bareheaded rider neither feels no., Los Angeles Times, 08-10-1997, pp A-17.

Copyright © 1997 Infonautics Corporation. All rights reserved.

