

Exercising in the heat? Cool down for better performance!



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One way to think about it, said study author Dr. Thijs M H Eijsvogels, would be that cooling techniques may reduce the amount of energy the body needs to use to stay cool, leaving more energy for the exercise itself.

“More blood will be available for oxygen transportation to the exercising muscles, which enables a better performance,” he told Reuters Health by email. “Thus less energy and effort is spilled for heat dissipating mechanisms.”

Dr. Eijsvogels, of the physiology department at Radboud University Medical Center in The Netherlands, and his colleagues included 28 studies in their review of prior research on cooling techniques.

On average, athletes who used cooling techniques performed almost seven percent better than those who did not, which could mean the difference between winning and losing, Dr. Eijsvogels said.

“Remember that in many elite sports the difference between a first and fourth place is marginal, so improving your performance with 6.7 percent due to the application of appropriate cooling techniques can have a large impact on the race result,” he said.

Even average athletes would notice a difference, said Dr. Paul Laursen, physiology manager at High Performance Sport New Zealand in Auckland.

“If performance matters to you, then it’s worth the effort,” Laursen told Reuters Health. He was not involved in the review.

“In general, the exercise-induced increase in core body temperature could lead to the development of heat-related illnesses, such as heat stroke,” Eijsvogels said. Cooling strategies may potentially do more than just improve performance, they may also reduce the risk of heat-related illnesses, he said.

Currently only some elite athletes use cooling techniques, mostly for sports like racing, cycling, motor cross racing, soccer and field hockey, he said. Ice vests are heavy to wear during a workout, and most casual exercisers don’t have access to ice slurry during a race, he said.

But he advocates wider use of the techniques beyond elite athletes, and novel developments in cooling fabric and gadgets might change this in the near future, he said.