

How Much Food Does Your Exercise Really Earn You?

In a small new study, volunteers who were shown chocolate and sports drinks after an exercise workout could not correctly guess how much would be an equal “reward” for the calories they had just burned.

Surprisingly, they chose amounts that were much too small—either underestimating how many calories they had burned or overestimating how many were in the foods.

“We believed adults and children would not be good at estimating the calorie values of foods and drinks nor the calorie expenditure of exercise. But we originally (thought) they would overestimate,” said senior author Craig Williams of Children’s Health and Exercise Research Center at St. Luke’s Campus of the University of Exeter in the U.K., in email to *Reuters Health*.

The researchers selected 50 adults and 49 adolescents who exercised regularly at sports clubs for rugby, netball, swimming, hockey and badminton in the U.K. After one hour of sports practice, they estimated how many calories participants had burned based on an existing activity guide.

Then the researchers asked exercisers how much food or drink would compensate for the calories they thought they had burned. Participants were shown 30 individual squares of chocolate on a board, and bottles of sports drink filled to half a bottle, one bottle and four bottles, as visual cues.

On average, the exercisers chose less than half as much of both the chocolate or the sports drink than would actually have compensated for their calories burned, according to a report in the *European Journal of Clinical Nutrition*.

The exercisers underestimated by about 500 calories, the researchers found. Rugby players, for example, burned an estimated 700 calories over one hour, but by their own estimation, they could only have consumed about 330 calories of chocolate and 140 calories of sports drink to compensate.

“Potentially this might be seen as encouraging, but as we pointed out in the paper, we have qualitative evidence that their intentions would have been to actually eat more when the training had finished, even though they were reporting by underestimating,” Williams said.

Many participants remarked that they would have rewarded themselves with more food or drink than they had estimated would compensate, he said.

They would likely have been equally poor at estimating for other food items, like pizza, he said.

It is possible that the participants anticipated what the researchers wanted to hear, and changed their answers accordingly, Williams noted.

Also, in the study, the exercisers did not have access to the nutritional information for the chocolate or sports drink, but in reality that information would likely be available.

“Of course much of this information is already available on the food labeling or in restaurants where they are providing the information, but aspects of basic nutritional education I think do need to be improved to allow us to make better informed choices and then how this fits into our daily, weekly, monthly schedules,” Williams said.

It is not clear whether these subjects were underestimating how many calories they burned or overestimating the calories in the foods, he said.

“It is not imperative and we should not become too fixated

with trying to be as precise as possible, for example, to the exact 1 kcal (this would be impossible), but to be able to make better overall estimations,” he said.

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