



Rewarding science that stands out

Science



Magazine

News

STKE

Careers

Multimedia

Collections

All Free Articles

Top 10 Last Month

ScienceShots

Daily News Archive

About ScienceNOW

Home > News > Daily News Archive > 2007 > June > 8 June (Laursen)



Work Out, Chow Down

By Lucas Laursen
ScienceNOW Daily News
8 June 2007

Heavy snacking after exercise may have little to do with hunger or appetite hormones. In a new study, people who rode a bike for an hour ate more for lunch than those who just sat around ate, despite similar levels of hunger and short-term appetite-suppressing hormones. The urge to gobble after exercise, it turns out, may be a more complicated mixture of psychology and body chemistry.

Hungry?

The lunch given to volunteers after they exercised or just sat around.

Credit: Cátia Martins

Hoping to get a better sense of why many people chow down after an hour at the gym, graduate student Cátia Martins of the University of Surrey, U.K., and colleagues recruited 12 adult volunteers with normal weight and eating habits, half of them male and half female. The team then divided the volunteers into two groups. Both groups drank a cup of hot chocolate for breakfast, but 1 hour later, volunteers from one group took a moderate 60-minute spin on a stationary bike, while volunteers in the other group sat around reading or writing. At the end of either activity, the researchers provided both groups with identical buffet lunches of unlimited sandwiches, fruit, cake, cookies, and yogurt. At various points throughout the experiment, Martins and her colleagues collected blood samples from the subjects and had them fill out a questionnaire about their hunger.

During their workout, the exercisers reported less hunger than the inactive volunteers and had elevated levels of PYY, GLP-1, and PP, hormones that suppress appetite in the short term. By lunchtime, both groups reported similar amounts of hunger, and both had indistinguishable levels of the three hormones. Yet the exercisers out-ate the slackers, consuming nearly 20% more calories at lunch. "There is no physiological reason for people to eat more right after exercise," says Martins, who reports the findings in the May issue of the *Journal of Endocrinology*. Instead, she says, psychological factors or slower-acting hormones, such as leptin, may play a role. Nevertheless, short-term exercise appears to have its benefits, as the exercising group--despite pigging out at lunch--still experienced a net calorie loss due to their workout.

Exercise researcher Neil King of the Queensland University of Technology in Australia says the study is novel, but he speculates that taking blood samples right before lunch may have interfered with the volunteers' appetites.

Related site

- [Scientists pod-tificate on exercise, appetite, and weight loss](#)

ADVERTISEMENT

1,000s
OF GRANTS
MILLIONS
IN FUNDING

ADVERTISEMENT

Science
AAAS

AAAS
NEWCOMB
CLEVELAND
PRIZE

Supported by
AFFYMETRIX[®]

Call for Nominations
\$25,000 awarded to
author/authors of an
outstanding paper
published in
Research Articles or
Reports in Science

Deadline 30 June 2007
+1 (202) 326 6507
skihara@aaas.org
Additional information
www.aaas.org/
about/awards



[To Advertise](#) [Find Products](#)

[Magazine](#) | [News](#) | [STKE](#) | [Careers](#) | [Multimedia](#) | [Collections](#) | [Help](#) | [Site Map](#)
[Subscribe](#) | [Feedback](#) | [Privacy / Legal](#) | [About Us](#) | [Advertise With Us](#) | [Contact Us](#)

© 2007 American Association for the Advancement of Science. All Rights Reserved.
AAAS is a partner of HINARI, AGORA, PatientInform, CrossRef, and COUNTER.