

# HEALTH

## Armstrong

### A BLESSING IN DISGUISE?

Lance Armstrong's achievements after beating testicular cancer have been attributed to weight loss, better training techniques and maturity. But at the recent 87th meeting of the Endocrine Society, researchers presented a new potential explanation for Armstrong's transformation from a great one-day rider into a Tour de France champ. According to endocrinologist Craig Atwood, Ph.D., assistant professor of medicine at the University of Wisconsin, Madison, one of the most harrowing aspects of Armstrong's cancer treatment—a unilateral orchiectomy, or removal of a testicle—could also be an unexpected blessing. Atwood suggests that the shift in hormones caused by the surgery might actually boost Armstrong's endurance.

An ex-racer from Australia, Atwood used data collected from published studies of subjects who had undergone unilateral orchiectomies to estimate Arm-



Lance's new post-cancer hormone levels let him burn more fat and less glycogen, say some endocrinologists.

strong's post-treatment sex-hormone levels. Atwood suggests that the decreased levels of sex hormones would increase levels of the enzyme lipase, which unleashes free fatty acids from fat cells and muscle tissue to be burned as fuel, thereby sparing carbohydrate. Because carbohydrates are the limiting fuel

**Lance's cancer treatment may have improved his fat-burning metabolism.**

source in endurance sports, especially during multi-day races, anything that spares carbs could improve performance, he theorizes. "When Lance attacks or has a mountain finish during a long stage, he should be able to go harder and longer than the rest because he will have more available carbohydrate," Atwood says.

Some scientists aren't buying Atwood's theory. When Atwood shared his findings with Edward Coyle, Ph.D., an exercise physiologist at the University of Texas, Austin, who has monitored Armstrong for over a decade, Coyle shot it down. As we reported last month in "The Secret of His Success," Coyle recently published his own paper in the *Journal of Applied Physiology* detailing Armstrong's physiological changes from 1992 to 1999, including an 18-percent increase in power-to-weight ratio due to weight loss and an increase in highly aerobic slow-twitch muscle fibers. And according to Guido Dalbagni, M.D., a urological surgeon at New York City's Memorial Sloan-Kettering Cancer Center, "The hormonal changes from a unilateral orchiectomy are minimal, and, if anything, lower levels of testosterone would be detrimental for athletic performance. The effects would be exactly the opposite of what is being suggested."—Julie Upton

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## SEPTEMBER IS INTERNATIONAL SQUARE DANCE MONTH...

...BUT WE'D RATHER KICK UP OUR HEELS AT THESE 5 RIDES.

**SEPT. 10: HOPE ON WHEELS, NASHVILLE, TN** This women-only ride, which raises money for breast cancer research at the Minnie Pearl Cancer Center, offers 24-, 62- and 100-mile routes along the newly completed Natchez Trace Parkway and Bianchi bicycles for top fundraisers. [how100.org](http://how100.org)

**SEPT. 10-12: SAWTOOTH BIKE TREK, SUN VALLEY, ID** The American Lung Association's fully supported, 150-mile tour includes three days of scenic vistas, a trip through the Stanley Basin, massages and dips in natural hot spring pools. [lungs.org](http://lungs.org)

**SEPT. 17: 2ND ANNUAL NUT ROLL, ALBANY, GA** Choose from mostly flat 30-, 46- and 62-mile rides on country roads, or a hillier 102, with a stop at the Jimmy Carter Boyhood Farm. All riders get free lunch and a one-day family pass to the Chehaw Wild Animal Park. [pecanycitypedalers.org](http://pecanycitypedalers.org)

**SEPT. 24: ROSARITO ENSENADA, ROSARITO BEACH, MEXICO** This 50-mile ride, which begins about 40 miles south of San Diego, offers coastline views, a mostly traffic-free course, and a 2-mile, 7.5-percent grade climb called El Tigre. Celebrate your effort at the Finish Line Fiesta on the waterfront. [rosaritoensenada.com](http://rosaritoensenada.com)

**SEPT. 25: TWIN LIGHTS RIDE, HIGHLANDS, NJ** Ride 15, 30, 50, 75 or 100 miles then party on the beach, while supporting the Lance Armstrong Foundation. New York City-based riders can leave the car at home and hop on a ferry from downtown Manhattan. [bikenewyork.org/TLR.htm](http://bikenewyork.org/TLR.htm)

For a list of events near you, visit [BICYCLING.com/events](http://BICYCLING.com/events)