

# Milk does a body good, especially athletes

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LONDON — At the end of nearly every training session, Matt Whitmore downs a pint of milk straight from the bottle.

"I do it pretty religiously," said Whitmore, 25, a gym trainer in London. He first started drinking milk after exercise about 10 years ago when he couldn't afford expensive supplements or protein shakes. "Milk helps me recover faster and I feel great afterwards," he said. "And now, I hate to train without it."

Researchers are giving scientific support to a view that Whitmore vouches for from experience: that milk may be just as good or even better than sports drinks for serious athletes recovering from exercise.

The health benefits of milk — which has carbohydrates, electrolytes, calcium and vitamin D — have long been established. But for athletes, milk also contains the two proteins best for rebuilding muscles: casein and whey.

Muscles get damaged after an intense bout of aerobic

exercise like running, playing football, or cycling. The casein and whey proteins in milk are precisely what the body needs to regenerate muscles fast.

Glenys Jones, a nutritionist at Britain's Medical Research Council, said milk's protein content makes it an ideal post-exercise drink.

"Milk provides the building blocks for what you need to build new muscles," said Jones, who has no ties to the dairy industry.

She said sports drinks mainly replace lost carbohydrates and electrolytes, and don't usually have the necessary nutrients for muscles to regenerate themselves.

Experts have generally been divided over whether milk outperforms sports drinks.

Dairy producers have been eager to break into the multibillion-dollar market, often sponsoring research into milk's athletic benefits that some call biased. So the debate continues, but milk has been getting a lot of attention.

In a study published in the journal *Applied Physiology, Nutrition and Metabolism*

in June, researchers found people who drank milk after training were able to exercise longer in their next session than people who had sports drinks or water.

"It's the form of the carbohydrate and the nutrients in milk that is most important," said Emma Cockburn, a lecturer in sports coaching at Northumbria University in northeast England who led the study, which was partially paid for by the dairy industry.

Cockburn advised athletes to drink milk immediately after working out.

"The damage caused by exercise leads to a breakdown of the protein structures in your muscles, but that doesn't happen until 24 to 48 hours later," she said.

If athletes drink milk right after training, then by the time it is digested, the milk's nutrients are ready to be absorbed by the muscles that have been hurt.

Drinking milk also may help athletes recover quicker if they are performing multiple times in a day.

For people who can't stomach the idea of plain milk, experts recommend adding

some chocolate or other artificial flavor. At the Beijing Olympics, six-time gold medalist Michael Phelps regularly downed a flavored milk drink in between races.

Scientists at Loughborough University have found low-fat milk is better than sports drinks for replacing fluids lost during exercise. Scientists suspect there may be two reasons for that.

Not only does milk have a lot of electrolytes, but it is emptied from the stomach more slowly than sports drinks, keeping the body hydrated for longer.

Though the vitamins and proteins found in milk are present in soy milk or dietary supplements, experts say milk has better proportions of those nutrients.

Milk also may help athletes shed fat and build muscle. In a small Canadian study, experts found women who drank milk after lifting weights gained about 4.4 pounds (2 kilos) of muscle and lost about the same amount of body fat.

Women who drank sports drinks put on about 3.3 pounds (1.5 kilos) of muscle but didn't lose any body fat.

Name \_\_\_\_\_

Foods & Nutrition

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Read the attached article and complete the following:

1. What is the main idea of paragraph three?
2. What is the best alternative title for this piece?
3. Which sentence shows an idea that would be important to include in a summary of this passage?
4. Which quote/statement from the passage best summarizes the passage?
5. The central thought of this passage is...