



Study Suggests Dairy Intake Can Help Build Muscle and Lose Belly Fat

By Helen Glaberson

Consumption of dairy products can shift weight loss and aid muscle gain when coupled with dieting and daily exercise, according to new Canadian research.

The study, published in the *Journal of Nutrition* aimed to find out how daily exercise and varied dairy intake would affect the amount of weight lost by women.

The McMaster University scientists claim that the group consuming a high protein, high dairy diet experienced greater whole body weight loss than those consuming a lower protein, lower dairy diet.

Fat in the abdomen is thought to be especially bad for cardiovascular and metabolic health, said Andrea Josse, the study's lead author.

"It seems, according to what we found in this study, increasing calcium and protein in the diet may help to further promote loss of fat from the worst storage area in the body."

The research was funded by Dairy Farmers of Canada, the US Dairy Research Institute and Canadian Institutes of Health Research.

Methodology and Results

The scientists compared three groups of 90 overweight and obese, but otherwise healthy, premenopausal women.

The groups consisted of varying amounts of dairy intake, high protein, high dairy (HPHD), adequate protein, medium dairy (APMD), and adequate protein, low dairy (APLD) differing in the quantity of total dietary protein and dairy food-source protein consumed of energy.

The women exercised seven days per week for four months, a routine that included five days of aerobic exercise and two days of circuit weightlifting.

Researchers found the low-dairy group lost about a pound and half of muscle, whereas the medium dairy group lost almost no muscle.

In contrast, the high-dairy group actually gained a pound and half of muscle, representing a three-pound difference between the low- and high-dairy groups.

On top of the muscle mass differences, the higher-protein, high-dairy group lost twice as much belly fat than the low-dairy group.

One hundred per cent of the weight lost in the higher-protein, high-dairy group was fat. And the participants gained muscle mass, which is a major change in body composition, said Josse.

The researchers said the tissue composition, exclusively fat of the weight the women lost, has profound implications for longer-term health.

The preservation or even gain of muscle is very important for maintaining metabolic rate and preventing weight regain, which can be major problem for many seeking to lose weight, said Josse.

Scientific Theory

The whey in dairy contains a high content of an amino acid called leucine. Studies in both animals and humans indicate that Leucine is particularly important in stimulating the formation of new muscle proteins, according to the scientists.

Body fat is stored energy therefore participants with a higher dairy intake had more fat to burn as fuel. This is mainly due to dairy's calcium and vitamin D content, which aid in regulating appetite, the researchers explained.

The calcium also forms a biological soap with fat in the intestine and is therefore excreted instead of absorbing it, so in the high dairy group absorbed less of the fat they ate.

Source: *The Journal of Nutrition*

Title: Increased Consumption of Dairy Foods and Protein during Diet- and Exercise-Induced Weight Loss Promotes Fat Mass Loss and Lean Mass Gain in Overweight and Obese Premenopausal Women

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