

## LACTOFERRIN REDUCES ABDOMINAL (VISCERAL) OBESITY

Disturbingly, two-thirds of the American population already meets the criteria for being overweight or obese, one-third meets the criteria for obesity, and at least 2 percent of Americans are now considered to be morbidly obese. The cost of this rising epidemic of obesity is enormous (no pun intended), both to obese patients themselves, and to a nation that is struggling to pay for the skyrocketing cost of providing healthcare to its citizens.

Obesity has been unquestionably linked to cardiovascular disease, diabetes, liver disease, gallstones, gastroesophageal reflux, arthritis, cancer, and multiple other serious illnesses. Despite these sobering realities, however, the incidence of obesity continues to rise in the United States, and increasingly, throughout the world.

In our high-calorie, low-effort modern world, it is very easy to pack on excess weight over the course of our lives. People, being people, are always looking for quick, easy solutions to their problems, including excess weight. Unfortunately, other than decreasing our intake of food and increasing the amount of exercise that we regularly perform, no other cures for obesity have yet been found.

However, a newly published study in the *British Journal of Nutrition* has identified an unlikely new dietary supplement that may be helpful in the battle of the bulge. Lactoferrin, which is abundant in the colostrum and milk of most mammals (including humans), is thought to primarily function as an antibacterial and antifungal agent, and may help to protect breast-fed babies from infection (in some countries, lactoferrin is routinely added to infant formula for this purpose). Recent research has also suggested that lactoferrin may have a beneficial effect on the metabolism of fat within the body, and in particular, the so-called "visceral fat" that accumulates within the abdominal area, and which has been specifically linked to an increased risk of generalized inflammation in the body, as well as cardiovascular disease and cancer.

In this small prospective, randomized, doubled-blinded study, 26 overweight men and women with abdominal obesity were randomized to receive either daily lactoferrin supplements (300 milligrams per day) or an identical placebo (sugar) pill (none of the participating patient volunteers knew which group they were in until the study was completed). These patient volunteers were then followed for 8 weeks. All of these research volunteers underwent CT scans to measure the extent of their total body fat, superficial (subcutaneous) fat, and visceral (abdominal) fat.

At the end of this 8-week study, the group that had been randomized to receive daily oral lactoferrin supplements experienced very significant decreases in visceral fat content, as well as decreased body weight, decreased BMI (a standardized measure of obesity that considers both body weight and height), and hip circumference, when compared to the group of volunteers who were assigned to take the placebo pills. Additionally, blood tests to evaluate the impact of daily lactoferrin supplements on metabolism did not reveal any apparent adverse side effects associated with lactoferrin supplementation.

While this is a very small study (only 26 patient volunteers were included), and the length of follow-up was very short (only 8 weeks), the prospective, randomized, double-blinded, placebo-controlled design of this study, when combined with the rather striking results that were observed, are rather compelling. Certainly, a larger study, with long-term follow-up, needs to be performed before daily lactoferrin supplements can be recommended as both a safe and effective aid to weight loss. Moreover, such a study would need to show that the reduction in visceral fat that was observed in this small Japanese clinical study is not only reproducible over the long-term, but is also associated with a clinically significant improvement in the illnesses that have previously been linked to abdominal obesity. Meanwhile, and until such a study is performed, I find the results from this small prospective clinical study to be very interesting, indeed.

*For a detailed review of the impact of obesity, exercise, nutrition, and other important lifestyle factors on the risk of developing cancer, watch for the publication of my new landmark evidence-based book, "A Cancer Prevention Guide for the Human Race," in September of this year.*

Br J Nutr. 2010 Aug 9:1-8 20691130

*Potent anti-obesity effect of enteric-coated lactoferrin: decrease in visceral fat accumulation in Japanese men and women with abdominal obesity after 8-week administration of enteric-coated lactoferrin tablets.*

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