



CCK

The Natural Appetite Suppressant

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Literature Education Series On Dietary Supplements

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Cholecystokinin (CCK) is a very interesting neuropeptide that has a great benefit to anyone who is trying to lose weight. CCK is produced by special cells in the intestinal wall in response to a meal that contains some fat. Basically, it causes bile and pancreatic enzymes to be released for fat digestion. Besides helping fat digestion, research has demonstrated that CCK also causes a reduction in food intake in several species, including humans.¹ In other words, *it helps you to control your appetite*; clearly an advantage if your trying to eat less and reduce body fat.

How it works

There seems to a few mechanisms by which this takes place. One is related to CCK's role in digestion: it slows down intestinal motility; that is, it causes food to move more slowly through the intestines, which gives you the sensation of being full for a longer period of time. Another mechanism is that CCK modulates dopaminergic neurotransmission in the brain. This is similar to the way the prescription weight loss drug Phentermine works: by increasing

the level of dopamine in the brain, which increases metabolism and decreases hunger.

Yet another mechanism seems to be CCK's relationship to glucagon. Glucagon is a pancreas hormone whose primary function it is to help raise blood sugar levels, thereby helping to stabilize appetite. Animal research indicates that CCK works synergistically with glucagon to improve satiety (satisfied feelings of fullness) and reduce feeding time.²

Enjoy your meal

One of the really great things revealed in CCK research is that this neuropeptide can decrease meal size in a specific, dose-related manner, without signs of acute toxicity (as is often seen in prescription anorectic drugs) and without decreasing the reported pleasure or satisfaction of the meal.³

Break down fat

Another interesting fact about CCK is that it stimulates lipolysis (fat breakdown) in adipose tissue. This seems to happen by a mechanism that is independent of its appetite suppressing properties. The importance of this function was demonstrated in a study where women using oral contraceptives experienced reduced serum levels of CCK, which was correlated to an increase in body fat. Although the amount of CCK released as a result of eating a meal was unaffected, serum (blood) CCK was reduced while serum fats and sugar increased.⁴ Naturally, these extra calories

were just stored as body fat. Clearly, CCK plays important roles in body composition as well as appetite control. Anyone, trying to reduce body fat might seriously consider integrating it into their supplementation program.

Reference

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