HYDROXYCITRIC ACID (HCA)

JAMES MESCHINO DC, MS, ND

Hydroxycitric acid (HCA), a naturally-occurring agent found in the rind of the garcinia cambogia fruit.

Traditionally, its use has been as a food additive and condiment in many dishes native to the countries in which it grows (i.e., Southeast Asia).

Toxicity studies have shown that HCA is an extremely safe dietary supplement, with no reported toxicity at recommended intake levels.

Several studies on human subjects have demonstrated significant weight loss results at doses of 750 mg to 1500 mg.

How Hydroxycitric Acid Works: The available experimental research indicates that HCA inhibits key enzymes that convert carbohydrates into fat. As a result, the liver shunts carbohydrates to its carbohydrate fuel tank (Glycogen stores). As the carbohydrate fuel tank fills up, nerve signals travel from the liver to the brain (via the vagus nerve) that stimulate appetite suppression. Thus, HCA many aid body fat reduction via two mechanims of action:

- Blocking the conversion of carbohydrate into fat with the liver. This is significant as most overweight individuals have higher insulin levels, which tends to promote the conversion of carbohydrates into fat with subsequent storage in adipose tissue
- Triggering nerve signals that suppress appetite, thus reducing the tendency to overeat.

Appetite suppression with HCA occurs in a natural way, not by stimulant drugs or ephedra — which are known to have life-threatening side effects—acting directly on the central nervous system. Some studies involving subjects taking 750 mg of HCA per day have revealed a weight loss of almost 20 lbs. in just 8 weeks, even in patients who had reached a weight loss plateau on a prior two-month diet plan. Not all studies have shown this benefit, however, several small clinical trials have been successful and there is siginificant experimental research to indicate that HCA inhibits key enzymes that convert carbohydrate into fat.

Hydroxycitric Acid References

Berkhout, T. et al. J of Biochemistry, 272:181-186

Clouatre,D. How to get the most from Garcinia Extracts. Let's Live, June 1996

Conte,A. A Non-prescription Alternative in Weight Reduction Therapy. 1992 (How I Do It In My Bariatric Practice)

Levy,R.I., et al. J Lipid Res 1972;13:356

Lowenstein,J. J of Biological Chemistry 1971;346 (3): 629-632

Ponksepp,J. et al. Pharm Bioch and Behaviour, 1977;6:683-687

Sergio,W. A natural food, the Malabar Tamarind, may be effective in the treatment of Obesity. Medical Hypotheses 1995;27:39-40

Sullivan,A. et al Am J Clin Nutr 1977;30:767-776