

Amino Acid Arginine May Fight Obesity

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The amino acid Arginine could help fight the rising tide of obesity. Research at Texas A&M University found that Arginine, which is commonly available as a supplement, reduced fat mass in obese rats caused by diet.

“Given the current epidemic of obesity in the U.S. and worldwide, our finding is very important,” said Dr. Guoyao Wu, an ArgiLife research animal nutritionist in College Station and Senior Faculty Fellow in the department of animal science at Texas A&M. “This finding could be directly translated into fighting human obesity.”

Researchers fed rats both low-fat and high-fat diets. When they fed rats Arginine supplements for twelve weeks, fat gain decreased by 65 percent in the group of rats fed the low-fat diet and by 63 percent in the group fed the high-fat diet. The Arginine caused no side effects.

The findings indicated that Arginine, which is found in seafood, nuts, seeds, watermelon juice, algae, and meats, may increase the growth of lean tissue growth. When Arginine was given to pigs, it increased muscle gain.

Wu believes Arginine reduced serum concentrations of branched-chain amino acids, which may lead to insulin resistance in obesity. It also appeared to stimulate the synthesis of muscle protein, a process that uses a lot of energy. “Thus, dietary energy would be utilized for lean tissue rather than fat gain,” he said.

Clinical studies with obese children and adults are planned.