

Do steaks make you big?

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Credit: FOTOS Van Robin <http://www.flickr.com/people/fotoosvanrobin/>

(PhysOrg.com) -- Adjusting the intake of high protein foods like meat, eggs and milk products could determine whether you become a rugby player or marathon runner and may help you lose weight, according to new research published this month in the *Journal of Biological Chemistry*.

Dr. Stefan Broer, head of the molecular nutrition group in the ANU College of Medicine, Biology and Environment at The Australian National University, said the study by a group of ANU and Sydney researchers could potentially lead to the development of new weight-loss drugs.

“When it comes to controlling your [body weight](#), everybody thinks about reducing sugar and fat. But we also eat a lot of [protein](#) so we wanted to

find out how it influences your body weight,” he said.

To investigate the problem, the team generated mice that could not digest protein as well as a normal mouse and measured a wide variety of physiological and physical properties.

“During digestion, your stomach and intestine breaks down protein into smaller subunits called amino acids,” Dr. Broer said.

“So we focused on mice that could not transport amino acids from the intestine into the cells of the body and therefore could not properly process proteins.

“One of the first things we noticed was that the animals were quite a bit smaller in size than normal mice, which suggests that eating more protein can increase our body size and possibly our sporting potential in the long term.

“When we gave these mice diets of different protein content, we found that they could not control their body weight, losing up to 20% in a couple of days. This indicates that varying protein intake in the short term affects our body weight.”

Dr. Broer said the study also revealed an influence of protein in our nutrition on insulin release, which controls the metabolism of sugar and fat in our bodies.

“This could explain some of the weight loss observed in the animals on different diets because we found that on a high protein diet a significant loss of fat occurred.

“This information may have potential in the future development of weight loss treatments.”

Provided by Australian National University

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