Unable to gain weight: Mice kept thin by blocking fat-storing enzyme

A compelling study from a team of researchers at the University of Copenhagen has demonstrated a way to completely stop a body's ability to store fat. In experiments with mice, the team showed that genetically deleting a single enzyme resulted in the animal not being able to gain weight, even when fed a fatty diet.

An enzyme dubbed NAMPT has been connected to obesity in both human and animal models by several studies. Its presence in fat tissue has been found to increase metabolic functionality in numerous body tissues, including fat tissue, which enhances the body's ability to store fat.

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'We gave the mice a diet that more or less corresponds to continuously eating burgers and pizza," explains Karen Nørgaard Nielsen, first author on the study. "Still, it was impossible for them to expand their fat tissue. Our ultimate goal is that by understanding these fundamental underpinnings of how we become obese, we can apply our finding to the development of novel treatment strategies for metabolic disease."

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Further research is proposed to investigate exactly how a deficiency in NAMPT inhibits fat storage and obesity. It is hoped that understanding the mechanism at play could help researchers develop a more targeted treatment strategy that regulates fat storage without causing the broader systemic issues that would result from entirely eliminating NAMPT from a body.

Read full, original post: Deletion of single enzyme stops mice getting fat, no matter the diet