

Brain Can Be Trained to Prefer Healthy, Low-Calorie Foods

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By: Staff

The brain can be trained to prefer healthy, low-calorie foods over high-calorie ones, a new study suggests.



The study was conducted by researchers at the Tufts University and at the Massachusetts General Hospital.

"We don't start out in life loving French fries and hating, for example, whole wheat pasta," said senior and co-corresponding author Susan B. Roberts, Ph.D., director of the Energy Metabolism Laboratory. "This conditioning happens over time in response to eating - repeatedly! - what is out there in the toxic food environment."

The research has shown that sugary foods can alter brain circuits, making people crave for unhealthy foods. In fact, people addicted to high-calorie foods have altered the sense of taste and even smell. **Scientists in the current study wanted to know whether or not these circuits could be changed to make the brain prefer healthy foods.**

The team looked at the reward system in 13 overweight and obese people. Eight people in the study were participating in a new weight loss program designed by the scientists at the Tufts University, while five were in the control group.



The participants underwent magnetic resonance imaging (MRI) brain scans at the start of the study and again six months later. The researchers found that there were significant changes in the brain circuits of people who were on diets, especially in areas that controlled addiction and reward.

"The weight loss program is specifically designed to change how people react to different foods, and **our study shows those who participated in it had an increased desire for healthier foods along with a decreased preference for unhealthy foods, the combined effects of which are probably critical for sustainable weight control,**" said Sai Krupa Das, Ph.D., co-author of the study, according to a news release. "To the best of our knowledge this is the first demonstration of this important switch."

The study is published in the journal Nutrition & Diabetes.

Lorie Eber is a trained Wellness Coach, NASM Certified Personal Trainer, Gerontologist and author. Lorie Eber Wellness Coaching provides one-on-one guidance and support to clients who are ready to make permanent lifestyle changes and lead a happier, healthier life.