

High-fat, high-sugar foods alter brain receptors

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Overconsumption of fatty, sugary foods leads to changes in brain receptors, according to new animal research at Johns Hopkins University School of Medicine. The new research results are being presented at the 2009 annual meeting of the Society for the Study of Ingestive Behavior (SSIB), the foremost society for research into all aspects of eating and drinking behavior. The results have implications for understanding bulimia and other binge eating disorders.

Dr. Bello and colleagues report that either continuous eating or binge eating a high fat, high sugar diet alters opioid receptor levels in an area of the [brain](#) that controls [food intake](#). Opioids are a family of chemicals with actions similar to those of morphine; however, opioids exist naturally in the brain and have been linked to feelings of pleasure and euphoria. "These results are interesting because we saw changes in opioid receptor gene expression in a brain area that controls how much we eat during a meal", said Bello.

The new findings suggest that overconsumption of highly palatable foods maintains bingeing by enhancing opioids in the brain, and that increased opioids could be a factor involved in binge eating disorders. These findings may help to understand the biological basis of eating disorders.

Source: Society for the Study of Ingestive Behavior

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