

Ghrelin increases willingness to pay for food

July 12 2011

Research to be presented at the upcoming 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, suggests that ghrelin, a naturally occurring gut hormone, increases our willingness to pay for food, while simultaneously decreasing our willingness to pay for non-food items.

Have you ever wondered about why you are willing to pay more for food when you are hungry? [Ghrelin](#), a naturally occurring gut hormone that signals hunger by acting on the brain, is instrumental in this process. One way that ghrelin acts is by increasing activity in brain "reward" regions when people view pictures of food. In this new study, the authors were interested in whether ghrelin affects people's willingness to pay for food and non-food items. [Brain activity](#) was examined using functional MRI in normal weight volunteers while they placed bids for food or for non-food trinkets after being injected with ghrelin, or after being injected only with saline.

Ghrelin treatment significantly increased the willingness of study subjects to pay for [food items](#), but reduced their willingness to pay for non-food trinkets. As expected, activity within several [brain reward](#) regions was correlated with bid values on both food and non-food items when subjects were treated with saline. However, when subjects were treated with ghrelin, such correlated activity was limited to a unique brain reward region, the nucleus accumbens.

These results support the view that ghrelin increases hunger and eating,

in part, by increasing reward signaling specifically in the [nucleus accumbens](#). A better grasp of brain reward signaling mechanisms may lead to better ways to control appetite and fight obesity.

Provided by Society for the Study of Ingestive Behavior

Citation: Ghrelin increases willingness to pay for food (2011, July 12) retrieved 2 May 2024 from <https://medicalxpress.com/news/2011-07-ghrelin-willingness-food.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--