

Chocoholic mice fear no pain

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Ever get a buzz from eating chocolate? A study published in the open access journal *BMC Neuroscience* has shown that chocolate-craving mice are ready to tolerate electric shocks to get their fix.

Rossella Ventura worked with a team of researchers from the Santa Lucia Foundation, Rome, Italy, to study the links between stress and compulsive food-seeking. She said, “We used a new model of compulsive behavior to test whether a previous stressful experience of hunger might override a conditioned response to avoid a certain kind of food - in this case, chocolate”.

Ventura and her colleagues first trained well-fed [mice](#) and starved mice to seek chocolate in one chamber rather than going into an empty chamber. Then, they added a mild electric shock to the chamber containing the chocolate. Unsurprisingly, the well-fed animals avoided the sweet treat.

However, mice that had previously been starved, before being allowed to eat their way back up their normal weight, resisted this conditioning - continuing to seek out [chocolate](#) despite the painful consequences. This is an index of [compulsive behavior](#) and the researchers claim that this matches compulsive food seeking in the face of negative consequences in humans.

More information: Food seeking in spite of harmful consequences is under prefrontal cortical noradrenergic control, Emanuele Claudio Latagliata, Enrico Patrono, Stefano Puglisi-Allegra and Rossella

Ventura, BMC Neuroscience 2010 11:15, [doi:10.1186/1471-2202-11-15](https://doi.org/10.1186/1471-2202-11-15)

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