

Researchers find hormone that increases the sex drive of mice

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Researchers at the University of Gothenburg show that mice that receive a supplement of the "appetite hormone" ghrelin increase their sexual activity. Whether the hormone has the same impact on humans is unknown, but if it does, the researchers may have found the key to future treatments for sex abuse.

Ghrelin is a gastrointestinal hormone that is released from the stomach, and is involved in the stimulation of appetite by activating the brain's reward system.

Since the brain's reward system also motivates us to seek a partner and to have sex, a group of researchers at the Sahlgrenska Academy decided to investigate whether ghrelin may also affect sexual behaviors.

Confirmed effect

The answer is yes, at least in [mice](#).

In the study, the researchers show that when mice receive a supplement of ghrelin, they increase their [sexual activity](#) and their efforts to find a partner. The effect is confirmed in a follow-up experiment, where mice that received a ghrelin inhibitor instead decreased their sexual activity.

"It is already known that ghrelin affects the reward mechanisms that are triggered by food, alcohol and other addictive drugs. Our study now

shows for the first time that ghrelin also plays a role in natural reward mechanisms like sex," says Elisabet Jerlhag, researcher at the Sahlgrenska Academy.

More research is needed

The studies show that the effects of the ghrelin are conveyed via dopamine, which is a known and important messenger in the brain's [reward system](#). The researchers' conclusion is that both ghrelin and dopamine regulate normal sexual behavior in mice.

"However, this does not mean that ghrelin fills the same function in humans. Finding out requires significantly more research in the area. But ghrelin inhibitors may potentially be a key to future treatments for sex addiction and sex abuse," says Elisabet Jerlhag:

"Addictive behaviours, including sex abuse, are one of our major social problems, and there is a great need for new treatment strategies. Hopefully, our results can add another piece of the puzzle to this work," says Elisbet Jerlhag.

More information: "The role of ghrelin signalling for sexual behaviour in male mice." *Addiction Biology*, [DOI: 10.1111/adb.12202](https://doi.org/10.1111/adb.12202)

Provided by University of Gothenburg

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