

Could the female orgasm be a happy remnant of evolution?

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Have scientists solved the mystery of the female orgasm?

As a team of researchers pointed out, during [intercourse](#) the male orgasm serves an obvious reproductive function: Without it, ejaculation can't happen.

But the reproductive role of female orgasm has been much less clear, because ovulation in humans occurs whether a woman has recently had an orgasm or not.

So the very existence of the female orgasm in women has long been a physiological mystery. But now U.S. researchers (with the help of some sexually active rabbits) believe they may have solved this riddle.

The new research was led by Gunter Wagner, a professor of ecology and [evolutionary biology](#) at Yale, and Mihaela Pavlicev, an assistant professor of pediatrics at the University of Cincinnati.

According to the investigators, part of the puzzle has been that the clitoris—the central locus for the female orgasm—is located a good distance above where the real "action" of reproductive intercourse occurs.

That led the team to look further back in the mammalian family tree. And as the two scientists reported in the Sept. 30 issue of the *Proceedings of the National Academy of Sciences*, the clitoris is much more central to intercourse for animals such as cats, rabbits and ferrets.

In those mammals, the clitoris is located along the reproductive pathway used for intercourse. In fact, in female rabbits, clitoral stimulation and orgasm is actually required to initiate the ovulation needed to reproduce.

That's different from what happens in women, of course. So Wagner and Pavlicev theorized that, somewhere along the evolutionary timeline, the clitoris migrated away from the center of reproductive activity while

retaining its ability to release pleasure-inducing hormones.

To test out their theory that the female orgasm is essential to procreation—at least in other mammals—the two scientists injected the anti-depressant fluoxetine (best known as Prozac) into female rabbits.

Since the drug is known to deplete a woman's ability to orgasm, the researchers theorized that, by extension, rabbits who got the shot might be less likely to ovulate.

And that was the case: As the female rabbits' ability to orgasm foundered, they ovulated 30% less often, compared to females that didn't get the antidepressant.

That seemed to confirm the notion that, in humans' distant evolutionary past at least, the [female orgasm](#) was essential to creating new offspring.

"This is important to our understanding female sexuality," Wagner said in a Yale news release. The finding also rebuts notions promulgated by Sigmund Freud and others that women who fail to reach [orgasm](#) are somehow psychologically immature or saddled with second-rate sexual partners.

"If this theory is correct," said Wagner, "none of those older ideas are valid."

More information: Mihaela Pavlicev et al. An experimental test of the ovulatory homolog model of female orgasm, *Proceedings of the National Academy of Sciences* (2019). [DOI: 10.1073/pnas.1910295116](https://doi.org/10.1073/pnas.1910295116)

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