

# Ibuprofen relieves women's hurt feelings, not men's

1 August 2014, by Laura Byerley



Credit: George Hodan/Public Domain

(Medical Xpress)—For years, researchers have known that physical pain relievers such as ibuprofen can also help ease emotional pain, but new research suggests that ibuprofen has contrasting effects on men and women: Men who take the drug report harsher feelings of rejection, and women report feeling better.

The research by Professor Anita L. Vangelisti at The University of Texas at Austin's Moody College of Communication, published in the June 2014 edition of *Personal Relationships*, could reveal ways men and [women](#) can help each other deal with hurt feelings.

People have long been conditioned to believe that hurt feelings and physical injury are separate phenomena. Recent research finds that both kinds of pain activate similar regions of the brain—and that differences in sex reveal opposing ways to mitigate the sting of social pain through over-the-counter [pain relievers](#).

Vangelisti dug deeper into the proven ability of physical pain relievers to alleviate [emotional pain](#)

in both sexes. According to her study, "Reducing social pain: Sex differences in the impact of physical pain relievers," women who took ibuprofen had less intense hurt feelings when they were excluded from a game and when they relived a painful experience than their male counterparts, who felt more hurt in both situations.

"Hurt feelings are a part of any close relationship, so learning how to think and talk about the social pain we experience in our relationships is important," said Vangelisti. "Understanding differences in the way women and men deal with their hurt feelings could go a long way toward helping couples cope with these feelings in their romantic and marital relationships."

The study was co-authored by James W. Pennebaker, chair and professor in the Department of Psychology at The University of Texas at Austin; Nicholas Brody, assistant professor in the Department of Communication Studies at the University of Puget Sound; and Trey D. Guinn, assistant professor in the Department of Communication Arts at the University of the Incarnate Word.

The research was based on responses from 138 university students—62 men and 76 women. After completing initial screenings and questionnaires, half of the participants took 400 mg of ibuprofen and the other half received a placebo.

In one part of the experiment, individuals engaged in "Cyberball," a virtual ball-tossing game on computers, in which they were socially excluded and then asked to rate their emotions.

During the other portion of the experiment, participants wrote a detailed description of a situation in which they experienced betrayal in a close relationship and of a situation in which they experienced physical pain. Afterwards, participants were asked to rate their emotions.

"It's possible that taking physical pain relievers provides men with more cognitive resources to express the pain they feel," said Vangelisti. "There's some evidence that, for men, the part of the brain that enables them to regulate their emotions is linked to the part of the brain that processes physical and social pain. If that's the case, taking a [physical pain](#) reliever may affect men's ability to hide or suppress their social pain."

Areas for further study include addressing the way [men and women](#) think about and express feelings and measuring the degree to which physical and [social pain](#) are linked.

Vangelisti said the findings of her study may expose differences in the ways women and [men](#) might best help each other deal with their hurt feelings.

"If our findings hold up for younger people, it also could help us address differences in the way children and adolescents think about and respond to socially painful situations like bullying," said Vangelisti.

**More information:** VANGELISTI, A. L., PENNEBAKER, J. W., BRODY, N. and GUINN, T. D. (2014), "Reducing social pain: Sex differences in the impact of physical pain relievers." *Personal Relationships*, 21: 349–363. [DOI: 10.1111/pere.12036](#)

Provided by University of Texas at Austin

APA citation: Ibuprofen relieves women's hurt feelings, not men's (2014, August 1) retrieved 27 April 2021 from <https://medicalxpress.com/news/2014-08-ibuprofen-relieves-women-men.html>

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