

Negative news stories affect women's stress levels but not men's

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Bad news articles in the media increase women's sensitivity to stressful situations, but do not have a similar effect on men, according to a study undertaken by University of Montreal researchers at the Centre for Studies on Human Stress of Louis-H. Lafontaine Hospital.

The findings were published today in [PLOS One](#).

The women who participated in the study also had a clearer recollection of the information they had learned. "It's difficult to avoid the news, considering the multitude of [news sources](#) out there, said lead author Marie-France Marin. "And what if all that news was bad for us? It certainly looks like that could be the case."

The researchers asked 60 people divided into four groups to read actual news stories. In order to determine their [stress levels](#), the researchers took samples of the participants' saliva and analyzed them for a hormone called cortisol. Higher levels of this bodily chemical indicate higher [levels of stress](#). A group of men and a group of women read "neutral" news stories, about subjects such as the opening of a new park or the premiere of a new film, while the another two gender segregated groups read negative stories, about events such as [murders](#) or accidents. Saliva samples were taken again in order to determine the effect of these news stories. "When our brain perceives a threatening situation, our bodies begin to produce [stress hormones](#) that enter the brain and may modulate memories of stressful or negative events," explained Sonia Lupien, Director of the Centre for Studies on Human Stress and a professor at

the university's Department of Psychiatry. "This led us to believe that reading a negative news story should provoke the reader's [stress reaction](#)."

The participants were then confronted with a series of standardized tasks involving memory and [intellect](#) that enable researchers to evaluate and compare how people react to stressful situations. A final round of samples was then taken to determine the effects of this experience. Finally, the next day, the participants were called back to talk about what they had read. The researchers were surprised by what they found. "Although the news stories alone did not increase stress levels, they did make the women more reactive, affecting their physiological responses to later [stressful situations](#)," Marin explained. The researchers discovered this when they saw that the level of cortisol in the women who have read the negative news was higher after the "stress" part of the experiment compared to the women who have read the neutral news. "Moreover, the women were able to remember more of the details of the negative stories. It is interesting to note that we did not observe this phenomenon amongst the male participants."

The researchers believe that evolutionary factors may be at play, noting that other scientists have considered whether an emphasis on the survival of offspring may have influenced the evolution of the female stress system, leading women to be more empathetic. This theory would explain why women could be more susceptible to indirect threats. "More studies should be undertaken to better understand how gender, generational differences and other socio-cultural factors affect our experience, as individuals, of the negative information that perpetually surrounds us," Marin said.

More information: Marin M-F, Morin-Major J-K, Schramek TE, Beaupre´ A, Perna A, et al. (2012) There Is No News Like Bad News: Women Are More Remembering and Stress Reactive after Reading Real

Negative News than Men. *PLoS ONE* 7(10): e47189.

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