

# First study to link lower resting heart rate variability with sexual difficulties in women

June 17 2015

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Credit: George Hodan/public domain

Chances are good that women with a low heart rate variability also suffer from sexual dysfunction. That's the finding from a study led by Amelia Stanton of The University of Texas at Austin in the US published in Springer's journal *Applied Psychophysiology and Biofeedback*.

Heart rate variability refers to differences in the length of time between

consecutive heartbeats. It is one of the most sensitive and objective measures of the interplay between the sympathetic nervous system (which activates the so-called fight or flight response) and the parasympathetic nervous system (which regulates the body's unconscious actions such as heart beat and breathing). Together, these form the autonomic nervous system. If this is in balance and functioning properly, a person will be able to adapt to physiological or environmental changes and stresses when needed.

Heart rate variability, in particular, plays a role in [female sexual arousal](#) function. It is a marker of a healthy heart and the body's ability to modulate blood pressure appropriately within various contexts. This is important because [sexual arousal](#) is largely a matter of the selective manipulation of [blood pressure](#) in the genitals. Heart rate variability also relates to the processing of emotional cues. In this context, low resting [heart rate variability](#) may reflect poor emotional health and vice versa.

Stanton's team analyzed data from 72 women aged 18 to 39 years who had previously participated in three experiments (one published, two not) conducted at The University of Texas in Austin. During these studies, their [heart rate](#) variability and sexual functioning (specifically physiological arousal and overall sexual function, which includes domains like lubrication, pain, and satisfaction) were measured while the women watched a neutral film clip followed by an erotic one.

It was found that women with below average heart rate variability are significantly more likely to report sexual arousal dysfunction and overall [sexual dysfunction](#) than others. There is already an established link between resting heart rate variability and erectile dysfunction in men.

"Our study indicated that low heart rate variability might place women at risk for sexual arousal problems and overall sexual difficulties," says Stanton. "Given that low resting heart rate variability has been associated

with depression, anxiety, and alcohol dependence, it is not surprising that it may also predict [female sexual dysfunction](#)."

Stanton says that the monitoring of heart [rate variability](#) could be a cost effective, easy to administer, and non-intrusive index that clinicians can use to assess potential sexual dysfunction and to monitor treatment progress. This might especially be valuable when treating female patients who suffer from sexual arousal dysfunction as well as heart problems.

**More information:** "Heart Rate Variability: A Risk Factor for Female Sexual Dysfunction," *Applied Psychophysiology and Biofeedback*. [DOI: 10.1007/s10484-015-9286-9](#)

Provided by Springer

Citation: First study to link lower resting heart rate variability with sexual difficulties in women (2015, June 17) retrieved 24 April 2024 from <https://medicalxpress.com/news/2015-06-link-resting-heart-variability-sexual.html>

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