

## Sadness increases subjective experience of pain

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(HealthDay) -- Sadness increases subjective pain ratings and affects painevoked cortical activity, according to a study published in the July issue of *The Journal of Pain*.

Atsuo Yoshino, M.D., of Hiroshima University in Japan, and colleagues used magnetoencephalography to evaluate pain stimuli experienced during sad, happy, and neutral emotional contexts in 19 healthy individuals, aged 20 to 30 years. Participants self-rated their <u>pain</u> <u>intensity</u>, and cortical beta rhythms were measured.

The researchers found that subjective pain ratings were higher in the sad emotional context compared with happy or neutral contexts. A corresponding larger event-related desynchronization of lower beta



bands in subjects' <u>right hemisphere</u> was observed during sad emotional context compared with happy emotional context.

"In conclusion, our results provide evidence that people tend to show higher pain sensitivities when they are feeling sad, and that the cortical <u>oscillations</u> (event-related desynchronization/event-related synchronization) in response to pain stimuli are particularly changeable under such conditions," the authors write. "These results suggest that observing sad emotion can modulate both subjective sensitivity and <u>neural activity</u>, and that emotional context is an important factor for understanding pain in human beings."

## More information: Abstract

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