

Virtual reality therapy helps decrease pain in hospitalized patients

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Virtual reality therapy is effective in significantly reducing pain for hospitalized patients, according to a new Cedars-Sinai study.

In the study, published online today by *JMIR Mental Health*, a sister publication of the Journal of Medical Internet Research, investigators examined 100 hospitalized patients who reported [pain scores](#) of greater than 3 on the Numeric Pain Rating Scale from zero to 10.

Fifty patients received [virtual reality](#) therapy consisting of wearing virtual reality goggles to watch calming video content such as helicopter rides over scenic portions of Iceland, or imagery of swimming in the ocean with whales. Those patients reported a 24 percent drop in [pain](#) scores after using the virtual reality goggles.

Another 50 patients viewed a standard, two-dimensional nature video, depicting relaxing scenes with a calming music audio track, on a close-proximity screen. Although those patients also experienced a reduction in pain, the decrease of 13.2 percent was less dramatic.

"Results indicate virtual reality may be an effective tool along with traditional pain management protocols," said Brennan Spiegel, MD, director of Cedars-Sinai's Health Service Research. "This gives doctors and [patients](#) more options than medication alone."

While it remains unknown exactly how VR works to reduce pain, Spiegel attributes the benefit to what he calls "immersive distraction." In other words, when the mind is deeply engaged in an immersive experience, it becomes difficult, if not impossible, to perceive other stimuli, including pain.

"We believe virtual reality hijacks the senses, but in a good way," Spiegel said. "It creates an immersive distraction that stops the mind from processing pain, offering a drug-free supplement to

traditional pain management."

Because the VR intervention was only 15 minutes long and included only one visualization, it is possible that pain could rebound after completion of the therapy session, Spiegel said adding that longer-term pain reduction might require sustained and repeated exposure to varied virtual reality content.

"Based on this study, we're now conducting a larger trial to measure the impact of virtual reality on the use of [pain medications](#), length of hospital stay and post-discharge satisfaction scores," Spiegel said.

Provided by Cedars-Sinai Medical Center

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