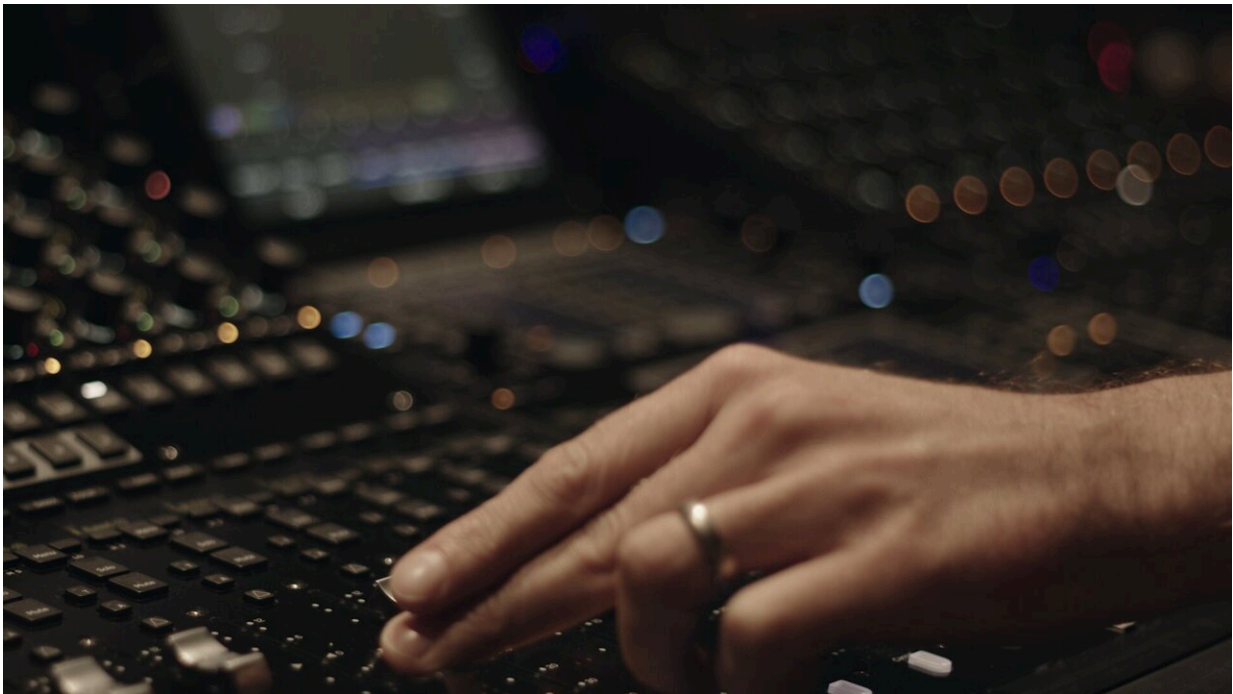


Perceived choice in music listening is linked to pain relief

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Someone using an audio mixer. Credit: McCann London & Craft London, CC-BY 4.0 (creativecommons.org/licenses/by/4.0/)

A new study explores the use of music-listening to relieve acute pain, finding that people who were given the impression that they had control over the music they heard experienced more pain relief than people who were not given such control. Dr. Claire Howlin of Queen Mary University of London, U.K., and colleagues from University College

Dublin, Ireland, present these findings in *PLOS ONE* on August 3, 2022.

Music listening can be used for [pain](#) relief, especially for [chronic pain](#), i.e., pain lasting more than 12 weeks. However, the underlying mechanisms of these benefits are unclear, especially for acute pain, i.e., pain lasting less than 12 weeks. Basic musical features, such as tempo or energy, seem to be less important for pain relief; instead, feeling able to make decisions about the music may be key for pain relief. However, previous work has largely focused on findings from lab-based samples that did not explore real-world, pre-existing acute pain.

To improve understanding, Howlin and colleagues asked 286 adults experiencing real-world [acute pain](#) to rate their pain before and after listening to a music track. The track was specially composed in two different versions of varying complexity. Participants were randomly assigned to hear either the low- or high-complexity version, and some were randomly selected to be given the impression that they had some control over the musical qualities of the track, although they heard the same track regardless of their choice.

The researchers found that participants who felt they had control over the music experienced greater relief in the intensity of their pain than participants who were not given such an impression. In questionnaires, participants reported enjoying both versions of the track, but no links were found between music complexity and amount of pain relief. Additionally, participants who engage more actively with music in their [everyday life](#) experienced even greater pain-relief benefits from having a sense of control over the track used in this study.

These findings suggest that choice and engagement with music are important for optimizing its pain-relief potential. Future research could further explore the relationship between music choice and subsequent engagement, as well as strategies for boosting engagement to improve

[pain relief](#).

The authors add: "Now we know that the act of choosing music is an important part of the well-being benefits that we see from [music listening](#). It's likely that people listen more closely, or more carefully when they choose the [music](#) themselves."

More information: Tune out pain: Agency and active engagement predict decreases in pain intensity after music listening, *PLoS ONE* (2022). [DOI: 10.1371/journal.pone.0271329](https://doi.org/10.1371/journal.pone.0271329)

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