

# Music decreases perceived pain for kids in pediatric ER

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Newly published findings by medical researchers at the University of Alberta provide more evidence that music decreases children's perceived sense of pain.

Faculty of Medicine & Dentistry researcher Lisa Hartling led the research team that involved her colleagues from the Department of Pediatrics, as well as fellow researchers from the University of Manitoba and the United States. Their findings were published in the peer-reviewed journal *JAMA Pediatrics* today.

The team conducted a clinical research trial of 42 [children](#) between the ages of 3 and 11 who came to the pediatric emergency department at the Stollery Children's Hospital and needed IVs. Some of the children listened to music while getting an IV, while others did not. Researchers measured the children's distress, perceived pain levels and heart rates, as well as satisfaction levels of parents, and satisfaction levels of health-care providers who administered the IVs. The trial took place between January 2009 and March 2010.

"We did find a difference in the children's reported pain – the children in the music group had less pain immediately after the procedure," says Hartling. "The finding is clinically important and it's a simple intervention that can make a big difference. Playing music for kids during painful medical procedures would be an inexpensive and easy-to-use intervention in clinical settings."

The research showed that the children who listened to music reported significantly less pain, some demonstrated significantly less distress, and the children's parents were more satisfied with care.

In the music listening group, 76 per cent of health-care providers said the IVs were very easy to administer – a markedly higher number than the non-music group where only 38 per cent of health-care providers said the procedure was very easy. Researchers also noticed that the children who had been born premature experienced more distress overall.

Hartling and her team hope to continue their research in this area, to see if music or other distractions can make a big difference for kids undergoing other painful medical procedures. The pain and distress from [medical procedures](#) can have "long-lasting negative effects" for children, note the researchers.

"There is growing scientific evidence showing that the brain responds to music and different types of music in very specific ways," said Hartling. "So additional research into how and why music may be a better distraction from pain could help advance this field."

The study noted that previous research has shown that the mood of the [music](#), whether it has lyrics, and whether it is familiar to the listener could have an impact on [pain](#) perception as well.

Provided by University of Alberta Faculty of Medicine & Dentistry

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