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Last Updated: Wednesday, 30 March, 2005, 12:38 GMT 13:38 UK

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## Music's powers over pain explored

**Listening to music might act as a painkiller, a study has found.**

Psychologists at Glasgow Caledonian University found that a favourite tune could reduce anxiety levels and increase tolerance of discomfort.



People's choice of distracting music varied widely

Tests carried out on people in pain proved music had the ability to increase feelings of control and help fight the pain barrier.

Music used in the study ranged from punk, rock, classical and folk to Firestarter by The Prodigy.

Dr Raymond MacDonald, Reader in Psychology, said: "We studied patients recovering from minor surgery in hospitals and we found that listening to your favourite music reduced anxiety levels.

"We then carried out a series of laboratory studies and asked people to keep their hand in very cold water for as long as they could.

**“ Music appeared to be the most effective strategy in combining distraction and feeling of control ”**

Dr Laura Mitchell  
Researcher

"We played music in the background and found that you keep your hand in longer when you listen to it. It reduces pain and increases your feelings of control."

During the cold water experiment, carried out by lecturer Dr Laura Mitchell, participants were given a choice of listening to music, doing mental arithmetic or watching Billy Connolly.

In each case, the person listening to music was able to tolerate the cold water the longest, sometimes up to five times as long.

Researchers believe that this is because music, as well as providing a distraction, can engage you emotionally unlike other stimulants.

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Dr Mitchell said: "The study showed that music appeared to be the most effective strategy in combining distraction and feeling of control.



Music may even make it easier to go for the burn

"The music brought by the participants was varied and included punk, dance, rock, classical and folk.

"The most surprising choice was The Prodigy's Firestarter, not music you would immediately think of as relaxing, but the person who chose it put up with the pain five times as long while listening to it."

The findings will be presented at the British Psychological Society conference in Manchester on Thursday.

Dr MacDonald said the work may point the way for further research into the use of music in settings like hospitals.

"On a lighter note, perhaps this explains why listening to some music eases our passage through the pain barrier on the gymnasium bike. It may help you go a little bit further," he added.

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