

Chronic pain is determined by emotions, scientists believe **Emotions may determine why some people are more likely to suffer chronic pain than others, a study has found.**

By Telegraph reporters
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The emotional state of the brain can explain why different individuals do not respond the same way to similar injuries, say scientists.

Some recover fully while others remain in constant pain.

Brain scan studies showed for the first time how chronic pain emerges as a result of an emotional response to an injury.

The process involves interaction between two brain regions, the frontal cortex and nucleus accumbens.

Lead scientist Professor Vania Apkarian, from Northwestern University in Chicago, US, said: "The injury itself is not enough to explain the ongoing pain. It has to do with the injury combined with the state of the brain."

The more emotionally the brain reacted to the initial injury, the more likely it was that pain will persist after the injury has healed, he said.

Prof Apkarian added: "It may be that these sections of the brain are more excited to begin with in certain individuals, or there may be genetic and environmental influences that predispose these brain regions to interact at an excitable level."

The research involved 40 volunteers who had all suffered an episode of back pain lasting one to four months.

Four brain scans were carried out on each participant over the course of one year.

The results, published in the journal Nature Neuroscience, made it possible to predict with 85% accuracy which individuals would go on to develop chronic pain.

The nucleus accumbens teaches the rest of the brain how to evaluate and react to the outside world.

Prof Apkarian said it may use the initial pain signal to teach other parts of the brain to develop chronic pain.

"Now we hope to develop new therapies for treatment based on this finding," he added.

Article from The Telegraph:

<http://www.telegraph.co.uk/health/healthnews/9368065/Chronic-pain-is-determined-by-emotions-scientists-believe.html>