

# CHRONIC PAIN HURTS THE BRAIN

HEALTH ISSUES #50

Chronic pain patients suffer from more than just pain; this includes depression and anxiety, sleep disturbances, and decision making abnormalities. Recent studies have demonstrated that chronic pain harms areas of the brain unrelated to pain.

## JOURNAL OF NEUROSCIENCE

Baliki, M. Geha, P. Apkarian V. Beyond Feeling: Chronic Pain Hurts the Brain, 6 February 2008, 28 (6) 1398-1403

**“Chronic pain is considered a central nervous system disorder.”**

## JOURNAL OF PAIN

Bushnell, T. Is chronic pain a disease? 2009;10:1113–1120.

Numerous studies have demonstrated that changes in brain structures are associated with persistent pain. Patients with persistent pain show a reduction in gray matter density.

## NATURE NEUROSCIENCE

Baliki, M. Corticostriatal functional connectivity predicts transition to chronic pain. Jul 2012, 1117–1119



“An oversensitive nervous system generates false alarms spontaneously or from ordinary nonpainful stimuli. Physiologists now recognize that nerves and muscles can generate abnormal impulses and the technical term for this is supersensitivity.”

## CHAN GUNN, M.D.

Prespondylosis and some pain syndromes following denervation supersensitivity. 1980 Mar-Apr;5(2):185-92.



Chiropractic is a system focused on the structure of the body, particularly the spine. Chiropractors restore the body's alignment to relieve pain and improve function and to help the body heal itself.

## HARVARD MEDICAL SCHOOL

Chiropractic care. June 6, 2018

A recent study demonstrated that chiropractic can improve regional cerebral glucose metabolism related to sympathetic relaxation and pain reduction with all of the participants reporting lower stress levels and better quality of life as the result of chiropractic care.

Ogura T. Tashiro M, Masud M. Cerebral metabolic changes in men after chiropractic care for neck pain. Altern Ther Health Med. 2011 Nov-Dec;17(6):12-7.