

Brain differences found in people with migraine

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People with migraines have differences in an area of the brain that helps process sensory information, including pain, according to a study published in the November 20, 2007, issue of *Neurology*, the medical journal of the American Academy of Neurology.

The study found that part of the cortex area of the brain is thicker in people with migraine than in people who do not have the neurological disorder.

Comparing 24 people with migraine to 12 people without migraine, the study found that the somatosensory cortex area of the brain was an average of 21 percent thicker in those with migraine.

“Repeated migraine attacks may lead to, or be the result of, these structural changes in the brain,” said study author Nouchine Hadjikhani, MD, of The Martinos Center for Biomedical Imaging at Massachusetts General Hospital in Boston. “Most of these people had been suffering from migraines since childhood, so the long-term overstimulation of the sensory fields in the cortex could explain these changes. It’s also possible that people who develop migraines are naturally more sensitive to stimulation.”

Hadjikhani said the results indicate that the brain’s sensory mechanisms are important components in migraine. “This may explain why people with migraines often also have other pain disorders such as back pain, jaw pain, and other sensory problems such as allodynia, where the skin

becomes so sensitive that even a gentle breeze can be painful.”

Other studies have shown changes in the cortex. The area becomes thinner in neurological disorders such as multiple sclerosis and Alzheimer’s disease. But the area thickens with extensive motor training and learning.

Source: American Academy of Neurology

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