



Wednesday, Aug. 9, 2006

Transcendental Meditation May Help Brain Handle Pain

Study: Five Months of Daily Meditation May Cut Brain's Pain Response

(WebMD) Five months of daily meditation may help your brain stay calm during sudden pain. So says a study on transcendental meditation, published in *Cognitive Neuroscience and Neuropsychology*.

Researchers included Zang-Hee Cho, Ph.D., of the University of California at Irvine, and David Orme-Johnson, Ph.D., of the Maharishi University of Management in Fairfield, Iowa. According to Maharishi University's Web site, students and faculty there practice Transcendental Meditation.

The researchers studied 24 healthy Californians (average age: 56-58 years) recruited from Transcendental Meditation centers in Los Angeles and Orange County.

Long-time meditators made up half the group. They had practiced Transcendental Meditation for an average of 31 years.

The other 12 people, who served as the comparison group, had attended only an introductory lecture about Transcendental Meditation.

Hot Water Test

The study started with a quick pain test. Participants dunked two fingers in warm water for 90 seconds. Then they put those fingers in hot water for 30 seconds, and then in warm water for a minute.

Meanwhile, they got their brains scanned with functional magnetic resonance imaging (fMRI).

Immediately afterwards, they rated the pain they felt during the test on a scale ranging from "no pain" to "worst possible pain."

Pain ratings were similar for all participants, with them reporting roughly the same amount of pain from the hot water.

But their brain scans differed. The experienced meditators showed 40% to 50% less brain activity in certain regions in response to the pain, the study shows.

Change In Five Months

Lastly, those in the comparison group got four days of instruction in Transcendental Meditation. Then, for five months, they meditated 20 minutes, twice a day. Then they repeated the pain test and brain scans.

This time, the scans showed 40% to 50% less brain activity in response to the pain, compared with their first scans five months earlier.

Transcendental Meditation may not numb people to sudden pain, but it may change how the brain responds to that pain, the researchers conclude.

SOURCES: *Cognitive Neuroscience and Neuropsychology*, Aug. 21, 2006; Vol.17, pp. 1359-1363.