

News Story 1: "Mending Mindfully." *Yoga Journal* November 2003, p. 35

Mending mindfully: A recent study suggests that practicing meditation can boost the immune system

By Heidi Kotansky

Meditation is widely known to reduce stress and anxiety, but now science has proven that it may even help prevent illness. In a study at the University of Wisconsin-Madison, researchers found that mindfulness meditation produced lasting positive changes in both the brain and the immune system.

Mindfulness meditation is designed to teach people to be present with full awareness in the moment, intentionally and nonjudgmentally, explains Katherine Bonus, meditation instructor and manager of mindfulness programs in the integrative medicine program at the UW-Madison Hospital and Clinics.

Often recommended to ease the stress and pain of chronic disease, it can help practitioners accept thoughts and feelings as they occur and deepen awareness of positive emotions, such as compassion.

The research team, led by Richard Davidson, professor of psychology and psychiatry at UW-Madison, found that mindfulness meditation produced biological effects that improved the subjects' resiliency. The experimental group, composed of 25 participants, received meditation training from Jon Kabat-Zinn, who developed a mindfulness-based stress-reduction program at the University of Massachusetts Medical Center. They attended weekly meditation classes as well as one seven-hour retreat during the study; they also practiced at home for an hour a day, six days a week. Those in the control group didn't meditate during the course of the study.

The researchers then measured electrical activity in the front parts of both groups' brains, the area that corresponds to emotion. Previous research has shown that the left side of this area becomes more active than the right side when a positive emotion is experienced, a pattern also associated with optimism. The study showed increased activity in the left side among meditators, significantly more than was seen in the control group.

Those meditating also demonstrated stronger immune function than those in the control group. All the participants received a flu vaccine at the end of the eight-week study period. At four and eight weeks after the shot was given, their blood was tested to measure the levels of antibodies they had produced against the vaccine. While everyone who participated in the study had an increased number of antibodies, the meditators had a significantly greater increase than the control group. "The changes were subtle, but statistically it was significant," says Dan Muller, M.D., head of the immunology core of UW-Madison's Mind-Body Center, which conducted the study's blood analysis. "It was startling that such a short intervention could produce a change." Plans for more research on the impact of meditation are under way. Davidson and his team are currently working with a group of people who have been practicing meditation for more than 30 years; they are also preparing to conduct a study on the impact of mindfulness meditation on people with specific health conditions.