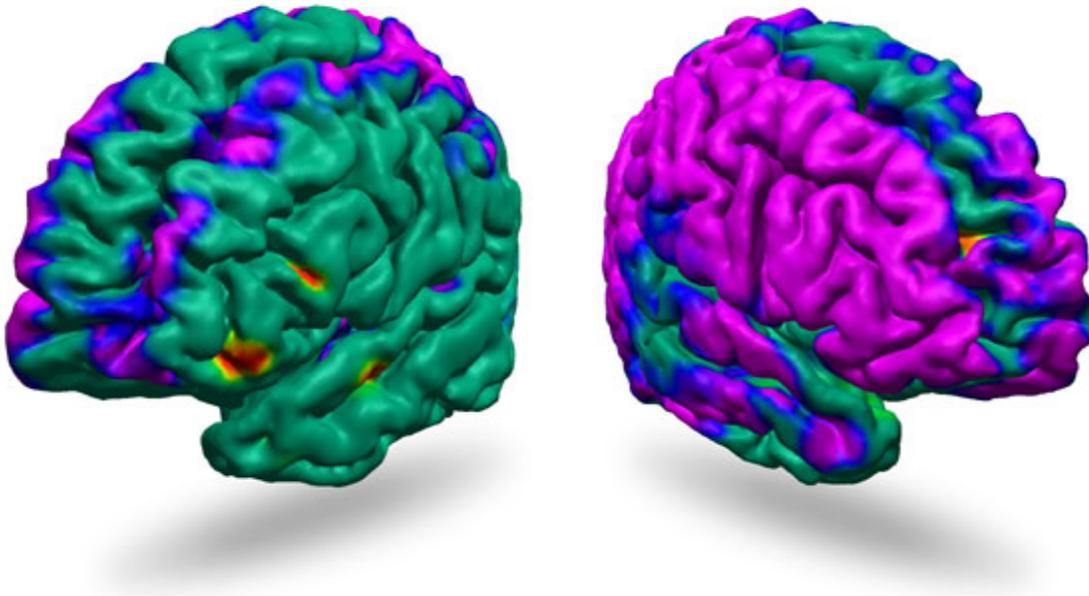


Study Links Depression to Thinning of Brain's Cortex

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Psychotherapy and Life Coaching



Images of the right and left hemispheres of the brain, as viewed from the side. The colors represent the differences in cortical thickness between the high-risk group, which has a family history of depression, and the low-risk group, which has no known risk. Blue and purple represent the thinning of the cortex, with purple regions having the greatest thinning. Green areas show no significant differences between the two groups.

By RONI CARYN RABIN
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Scientists who have been following families with a history of [depression](#) have found structural differences in family members' brains — specifically, a significant thinning of the right cortex, the brain's outermost surface. The thinning may be a trait or a marker of vulnerability to depression, the researchers suggested.

The scientists' brain imaging study found the thinning in descendants of depressed parents and grandparents, whether or not the individuals themselves had ever suffered a depressive episode or an [anxiety disorder](#), researchers said.

"That's what is so extraordinary. You're seeing it two generations later, and you're seeing it in both children and adults," said Dr. Bradley S. Peterson, a professor of [psychiatry](#) at Columbia College of Physicians and Surgeons and the paper's first author. "And it's present even if those offspring themselves have not yet become ill."

While people may assume that a familial trait is genetic, that is not necessarily the case, Dr. Peterson added. "We don't know if this has a genetic origin or if it's a consequence of growing up with parents or grandparents who are ill. Studies have shown that when parents are depressed, it changes the environment in which children are growing up."

The paper, to be published in the [Proceedings of the National Academy of Sciences](#), is an outgrowth of research started 27 years ago by Dr. Myrna Weissman to investigate the familial roots of depression. Dr. Weissman is the paper's senior author.

The scientists conducted brain imaging of 131 individuals, including children and adults ages 6 to 54, about half of whom were considered at high risk for depression because of their family history and half of whom were in a low-risk group. Maps of cortical thickness showed significant thinning of 28 percent on average across broad expanses of the right cerebral hemisphere in the high-risk group, compared with the low-risk group, the paper reported.

The cerebral cortex is the region of the brain centrally involved in reasoning, planning and mood, and thinning of the cortex may affect an individual's ability to pay attention to and interpret social and emotional cues, scientists suggested.

"If you have thinning in this portion of the brain, it interferes with the processing of emotional stimuli," Dr. Peterson said. "We think that's what makes them vulnerable to developing [anxiety](#) and depression — it essentially isolates them in an emotional world."

While thinning in the right hemisphere was not associated with actual depression, additional thinning in the same region of the left hemisphere was, and "seems to tip you over from having a vulnerability to depression to actually developing symptoms," Dr. Peterson said.

Dr. Helen Mayberg, a professor of psychiatry and neurology at [Emory University](#), said that the study's size was impressive and that it provided "another piece of the puzzle that identifies some brain areas for us to pay more attention to."

"Is it a risk factor? A sign of depression? A sign you will get depression?" Dr. Mayberg asked. "These are really complicated and interesting questions."

*Dr. Jane Bolton, a licensed marriage and family therapist, certified master life coach and certified contemporary psychoanalyst is dedicated to supporting people in the fullest self expression of their Authentic Selves. Her website <http://www.DrJaneBolton.com> is full of free articles, information, and inspiration about Living Life Fully. You can get a free chapter of her Ebook, *How To Make Love through Deep Listening* at <http://snurl.com/ad902>. She is a dynamic speaker and gives workshops on self-expression and assertiveness.*