

TMS TRENDS

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DEPRESSION AND HEART ATTACK RISK IN YOUNG WOMEN

A study published last month in the *Journal of the American Heart Association* took a close look at the relationship between heart disease and depression in women. Researchers followed more than 3,200 men and women diagnosed with heart disease over a time span of seven years.

From this data, researchers drew two important conclusions:

1. Women 55 years of age and younger are more likely to be depressed than older women (>55) or men.
2. Women 55 years of age and younger who are depressed are more than twice as likely as men or older women (>55) to suffer from a heart attack.

Although the reason for this correlation remains unclear, the main takeaway of this study, according to lead author Dr. Amit Shah, is for young women with depression to view their illness as a “motivating factor to live a healthier lifestyle and be more aggressive about preventative care.”

FEAR CENTER SIZE IN CHILDREN WITH ANXIETY

Recent research studying the brains of children with anxiety, published in *Biological Psychiatry*, has reached a surprising conclusion: the fear centers in children who suffer from anxiety are significantly larger in size than those who do not.

A key component of the brain’s fear center is the amygdala, which regulates the body’s fear response. From the data garnered in this study, the subregion of the amygdala most affected is the area associated with fear learning and the processing of emotion-charged information.

Through the recruitment of 76 children between the ages of 7 and 9, researchers at Stanford University School of Medicine used MRI readings to compare amygdalar volume with the associated child’s anxiety levels (determined by assessments filled out by parents). Interestingly enough, from the data collected, researchers were able to generate an equation to predict a child’s anxiety level from the MRI dimensions of amygdalar volume and functional connectivity.

According to the article, in order to make progress on these observations, future studies will need to shift to a longitudinal format, studying children over time to learn the implications of these differences in critical brain structures. These findings have the potential to reveal a biomarker for debilitating anxiety in children, and give us the ability to act before symptoms worsen.

Studies like these give us insight into not only the impact of anxiety in children, but also the role anxiety plays in human brain development.