

## **Brain theory of eating disorders**

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Women may be more at risk of eating disorders than men because of the way their brain processes information.

Women appear more sensitive about body image. Scientists found the female brain responds differently to a man's when exposed to certain words concerned with body image. The findings may provide an explanation for why ten times as many women develop anorexia and bulimia than men. The study, by Japan's Hiroshima University, is published in the *British Journal of Psychiatry*.

British experts welcomed the research and said it could lead to a better understanding of how eating disorders develop. A spokesman for the Eating Disorders Association said: "We know there are differences between how men and women reason and think. "But this study throws new light on the problem."

### **Major problem**

Eating disorders are a serious problem in the UK. It is estimated that at least 165,000 people, 90 per cent of them women, are affected and that one in ten will die as a result of their condition.

Both anorexia, which involves starving the body of food and bulimia, a cycle of starving and bingeing, are closely linked to mental illness. They now account for more deaths among psychiatric patients than anything else. But until now, there has been no obvious trigger for why women get the disorder. Although genetic make-up does have some influence, problems with eating can also be brought on stress at school, depression and even bereavement among family or friends.

### **The latest study hints at an underlying physiological cause.**

Scientists took 13 men and 13 women and exposed them to a series of tests in which they were asked to read two sets of words. One consisted of unpleasant words that described body image, while the other was a set of neutral words. Each person was asked to score the words in terms of how pleasant and unpleasant they were. At the same time, researchers scanned their brains using magnetic resonance imaging, to measure which parts of the brain became active during the experiment.

The results showed that, among the women, the unpleasant words stimulated a part of the brain called the amygdala, which is thought to become active when a person feels under threat. But in men, this part of the brain showed little activity during the tests. Instead, they used a part of the brain called the medial prefrontal cortex, commonly associated with rationalising information.

"The lack of activation in the amygdala among men suggests they may not process unpleasant words concerning body image as fearful information, whereas women seem to do so," the researchers said. "Our results suggest men processed the words more cognitively than emotionally. On the other hand, women processed them more emotionally."

The EDA spokesman said the role of the brain in anorexia and bulimia was attracting more scientific interest. "From our point of view, we are very interested in why there's such a great difference between men and women. This study may be helpful for people are researching the field."