

Anorexia - as addictive as drugs?

French scientists say that anorexia is comparable to the drug Ecstasy as both appear to activate some of the same brain pathways.

The highly addictive club-drug ecstasy and anorexia reduce the drive to eat by stimulating the same subset of receptors for the neurotransmitter serotonin.

These receptors (called 5-HT4) are positioned in a part of the brain called the nucleus accumbens, which is associated with feelings of reward and may help explain the addictive nature of anorexia and other eating disorders and lead to new treatments.

Dr. Valerie Compan of Centre National de la Recherche Scientifique, Montpellier, and colleagues say their research indicates that anorexia can be a reward-relating problem involving neuronal mechanisms.

Dr. Compan and her team stimulated these receptors in mice, which are known to play a role in addictive behavior, and found that this led to anorexic-like behaviour fed mice ate less and food-deprived mice showed a reduced drive to eat.

Dr. Compan says anorexia can be viewed as a kind of addiction where sufferers become "hooked".

They say stimulating these receptors in mice also boosted production of the same enzymes stimulated in response to cocaine and amphetamine use; while blocking the receptors increased food intake in the animals and mice missing these receptors were less sensitive to the appetite-suppressant effects of ecstasy.

Dr. Compan says their research shows ecstasy appears to mimic the appetite loss that is characteristic of anorexia and that could have implications for the development of drug treatments for eating disorders.