

Understanding the Amygdala

How the Amygdala controls emotional response

The Amygdala,

is a neural structure that is thought to be important for emotional learning and the processing of emotional information more generally (Zald, 2003)

1 Emotional Regulation



Emotion regulation refers to any process an individual uses to influence the onset, offset, magnitude, duration, intensity or quality of one or more aspects of an emotional response (Gross, 2007).

The amygdala plays an important role in learning associations between a stimulus and its emotional significance

2 Amygdala Damage

The effects of amygdala lesions in humans have confirmed that the expression and modulation of emotional responses are primarily affected (Angrilli et al. 1996)

Large cortical-subcortical dissociation can be induced by amygdala lesions (Aggleton, 1993)



3 Depression and Anxiety Disorders



Comorbidity is high between these disorders

The amygdala is strongly involved in emotion processing and an important brain area for underlying neural correlates of depressive and anxiety disorders.

There is a significant positive correlation between daily reported anxiety and activation in the amygdala

SOURCE

Aggleton JF. The contribution of the amygdala to normal and abnormal emotional states. (Review) Trends Neurosci 1993; 16: 328-33.
Zald, D. R. (2003). The human amygdala and the emotional evaluation of sensory stimuli. Brain Research Reviews, 41, 88-123.
Gross, J.J., editor. (2007). Handbook of Emotion Regulation. New York, NY: Guilford Press.
Van den Buik, B. G., Meens, F. H., Van Laag, N. D., De Vooch, C. H., Van der Wee, N. J., Rommelse, B. A., ... Vermeiren, R. R. (2014, June 5). Amygdala activation during emotional face processing in adolescents with affective disorders: The role of underlying depression and anxiety symptoms. Frontiers in Human Neuroscience, 8(930), 1-13. Retrieved September 26, 2015, from <http://journal.frontiersin.org/src/ftm/oclc.org/article/10.3389/fnhum.2014>

Aggleton JF. The contribution of the amygdala to normal and abnormal emotional states. (Review) Trends Neurosci 1993; 16: 328-33.