**Common antibiotic may help prevent, treat post traumatic stress: Study**

[**HEALTH AND FITNESS**](http://www.hindustantimes.com/health-and-fitness/) Updated: Apr 04, 2017 16:49 IST

PTI

PTI   
London

Doxycycline may help reduce fear memory response and treat anxiety disorders such as post traumatic stress disorder, finds new research.

Common antibiotic doxycycline may help treat or prevent post traumatic stress disorder (PTSD) by disrupting the formation of negative thoughts and fears in the brain, according to a new study.

Researchers, including those from University College London in the UK, gave 76 healthy volunteers either doxycycline or a placebo and were put in front of a computer. The screen would flash either blue or red, and one of the colours was associated with a 50% chance of receiving a painful electric shock.

This happened 160 times, with the colours appearing in random order, so that participants learnt to associate the ‘bad’ colour with the shock.

A week later, under no medication, participants returned to repeat the experiment. This time there were no electric shocks, but a loud sound played after either colour was shown. Participants’ fear responses were measured by tracking their eye blinks, as this is an instinctive response to sudden threats.

The fear memory response was calculated by subtracting the baseline startle response – the response to the sound on the ‘good’ colour – from the response to the sound when the ‘bad’ colour was showing.

Researchers found that fear response was 60% lower in participants who had doxycycline in the first session compared to those who had the placebo, suggesting that the fear memory was significantly suppressed by the drug.

“When we talk about reducing fear memory, we are not talking about deleting the memory of what actually happened, the participants may not forget that they received a shock when the screen was red, but they ‘forget’ to be instinctively scared when they next see a red screen,” said professor Dominik Bach of University College London (UCL).

“Learning to fear threats is an important ability for any organism, helping us to avoid dangers such as predators. Over-prediction of threat, however, can cause tremendous suffering and distress in anxiety disorders such as PTSD,” said Bach.

PTSD is a term for a broad range of psychological symptoms that can develop after someone experiences or witnesses a traumatic event. PTSD is caused by an overactive fear memory, and the new research shows that doxycycline can reduce the fear memory response in healthy volunteers, researchers said.

The study was published in the journal Molecular Psychiatry.