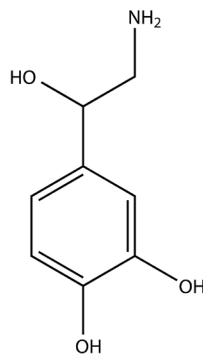
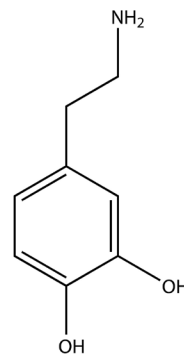


Adrenaline



Noradrenaline



Dopamine

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POST-TRAUMATIC STRESS DISORDER Factsheet

August 2021

What are catecholamines?

Catecholamines are a group of neurotransmitters that include dopamine, norepinephrine, also called noradrenaline, and epinephrine, also called adrenaline. The sympathetic nervous system stimulates the release of catecholamines to mediate adaptive responses to acute stress. Catecholamines are also linked to long-term memory of events that induce strong emotions, including fear. Stress-responsive neurotransmitters released during emotional arousal are thought to enhance the consolidation of fear memory. Hyperresponsiveness in the dopaminergic system is common in individuals who have been exposed to stress, which was associated with PTSD symptoms such as restlessness, nightmares, fear memory, and impulsivity. Over activation of noradrenaline receptors could be associated with the flashbacks, and nightmares frequently experienced by those with persistence of PTSD symptoms.

What is the evidence for changes in catecholamines in people with PTSD?

Moderate to high quality evidence found a small increase in plasma or urinary norepinephrine levels in people with PTSD, with no differences in epinephrine or dopamine levels compared to controls without PTSD. Containing the epinephrine analysis to urine samples showed increased epinephrine in people with PTSD compared to controls.

For more information see the technical table

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at neura.edu.au/donate


NeuRA
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NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about PTSD and its treatment with your doctor or other health care provider.