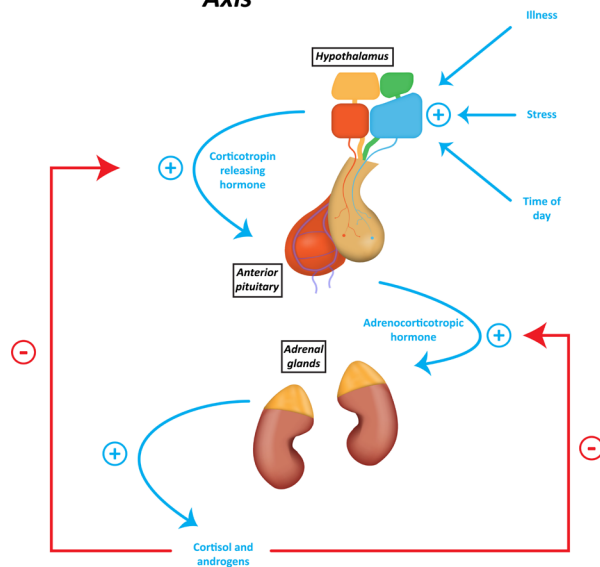


Hypothalamic - Pituitary - Adrenal Axis



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POST-TRAUMATIC STRESS DISORDER Factsheet

August 2021

What is HPA?

The biological response to stress is mediated through the Hypothalamic-Pituitary-Adrenal (HPA) axis and the sympathetic nervous system. Cortisol and the steroid hormone dehydroepiandrosterone (DHEA) and its sulfate form DHEA-S are important for elucidating the role of HPA dysfunctions in PTSD. Stress is a threat to the body's ability to regulate internal processes following exposure to an adverse event. People adapt physiologically and behaviourally in response to stress to re-establish internal balance. Altered HPA axis activity can be detrimental to physical and psychological health.

What is the evidence for HPA dysfunction in people with PTSD?

Moderate to high quality evidence found small decreases in morning and 24-hour cortisol levels in people with PTSD compared to controls. The effect was larger in studies with non-trauma-exposed controls than in studies with trauma-exposed controls. Moderate quality evidence found no significant changes in cortisol levels or in the cortisol awakening response following psychosocial treatments for PTSD.

Moderate to high quality evidence found no significant differences in DHEA or DHEA-S levels compared to controls, apart from higher evening DHEA levels in people with PTSD when compared to non-trauma exposed 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



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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.