

## The ACTH response to dexamethasone in Persian Gulf War veterans.

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The basis of postdeployment health symptoms in Gulf War veterans remains poorly understood. Alterations in the feedback regulation of the hypothalamic-pituitary-adrenal (HPA) axis have been demonstrated in posttraumatic stress disorder (PTSD) and other bodily disorders related to stress. The objective of this article was to examine whether similar HPA axis alterations are related to Gulf War deployment, postdeployment health symptoms, or PTSD. Plasma adrenocorticotrophic hormone (ACTH) was measured on consecutive mornings at 08:00 h before and after a low dose of oral dexamethasone (DEX) at 23:00 h in Gulf War veterans with PTSD (n = 14), Gulf War veterans without PTSD (n = 11), and healthy veterans never deployed to a war zone (n = 12). Both Gulf War veterans with PTSD and Gulf War veterans without PTSD had significantly lower post-DEX ACTH levels than the nonexposed veterans, in the absence of group differences in basal ACTH or DEX levels. Among Gulf War veterans, post-DEX ACTH levels were significantly associated with musculoskeletal symptoms. Gulf War deployment and postdeployment health symptoms appear to be associated with alterations in feedback regulation of the pituitary gland that suggests a possible common link between postdeployment health symptoms and other chronic stress-related conditions.

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