# Article information:

Stress, cortisol, and social hierarchy - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S2352250X19301782?casa_token=UxZ6smZug8YAAAAA%3ARrRM-zcD2HiW35NvFPV5Q9hkGH7B3-LFCCpxThFfZ3q0U6L2Q9fL_VrLjVrtsN-tQFuj06oC3A>

# Article summary:

1. Cortisol and stress levels are typically high when one lacks or may lose social status, while they are low when status is stable and enhances a sense of control.

2. The relationship between cortisol and social hierarchy depends on individual factors such as the frequency and severity of stressors, the level of control felt, and the need for vigilance and deference.

3. Cortisol acts as both an indicator of stress (output) and a cause of behavioral inhibition (input), with high cortisol predicting withdrawal from unfamiliar or challenging situations.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article titled "Stress, cortisol, and social hierarchy" provides a review of the literature on the relationship between cortisol, stress, and social status. While the article presents some interesting findings and insights, there are several potential biases and limitations that need to be considered.

One potential bias in the article is the focus on non-human primates as a basis for understanding the relationship between cortisol and social hierarchy in humans. While it is valuable to consider research conducted on non-human primates, it is important to recognize that humans have complex social structures that may differ from those of other animals. Therefore, generalizing findings from non-human primate studies to humans should be done with caution.

Additionally, the article primarily focuses on cortisol as an indicator of stress and its relationship to social status. While cortisol is an important hormone in the stress response, it is not the only factor involved. Other physiological markers of stress, such as heart rate variability or inflammatory markers, could provide a more comprehensive understanding of the stress response in relation to social hierarchy.

Furthermore, the article does not thoroughly explore potential confounding factors that may influence the relationship between cortisol and social status. For example, individual differences in personality traits or coping strategies could impact how individuals respond to their social status and subsequently affect their cortisol levels. Considering these factors would provide a more nuanced understanding of the relationship.

The article also lacks discussion on potential reverse causality between cortisol and social status. While it suggests that low cortisol may be both a cause and consequence of stable status, it does not provide evidence or explore alternative explanations for this relationship. Longitudinal studies would be necessary to establish causal relationships between cortisol and social hierarchy.

Moreover, there is limited discussion on potential gender differences in the relationship between cortisol and social status. Research has shown that men and women may respond differently to stressors and experience different patterns of cortisol release. Failing to address these gender differences limits the generalizability of the findings.

In terms of missing evidence, the article does not provide a comprehensive review of the literature on cortisol and social hierarchy. It selectively cites a few studies without considering conflicting or contradictory findings. This one-sided reporting may lead to an incomplete understanding of the topic.

Overall, while the article provides some valuable insights into the relationship between cortisol, stress, and social hierarchy, it has several limitations and potential biases that need to be considered. A more comprehensive review of the literature, addressing potential confounding factors and alternative explanations, would strengthen the arguments presented in the article.

# Topics for further research:

* Gender differences in cortisol response to social hierarchy
* Physiological markers of stress beyond cortisol
* Personality traits and coping strategies in relation to cortisol and social status
* Reverse causality between cortisol and social hierarchy
* Conflicting findings on the relationship between cortisol and social status
* Longitudinal studies on cortisol and social hierarchy

# Report location:

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