

Stress early in life leads to adulthood anxiety and preference for 'comfort foods'

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Research to be presented at the Annual Meeting of the Society for the Study of Ingestive Behavior (SSIB), the foremost society for research into all aspects of eating and drinking behavior, suggests that exposure to stress in the first few days of life increases stress responses, anxiety and the consumption of palatable "comfort" foods in adulthood.

"Comfort foods" have been defined as the foods eaten in response to emotional stress, and are suggested to contribute to the [obesity epidemic](#). Hormonal responses to chronic stress in adulthood seem to play a role in the increased preference for this type of food, especially in women.

In this study, we aimed at verifying if an exposure to stress very early during development could also lead to increased consumption of comfort food in adult life, and if increased anxiety and stress responses were persistently affected by early adversity. Litters of rats were subjected to a protocol of reduced nesting material (Early-Life Stress) or standard care (Controls), in the first days of life. In adulthood, behavioral anxiety and [stress reaction](#) were measured. Preference for comfort food was measured over four days in a computerized system, in which the mean intake over approximately every second is calculated by a peripheral computer (BioDaq, Research Diets®).

Early-Life Stress increased adulthood anxiety, increased the hormonal response to stress ([corticosterone](#)) and increased the preference for comfort foods, even after a period of chronic exposure to this type of food.

"To our knowledge, this is the first study to demonstrate that comfort food preference could be enhanced by such an early stress exposure", says lead researcher Tania Machado. The anxiety and altered food preferences seen in these rats exposed to neonatal adversity can be related to the described changes in the hormonal response

to stress. Therefore, in neonatally stressed rats, a greater consumption of "comfort foods" is possibly used as a way to alleviate [anxiety symptoms](#) (self-medication). Future studies in this area may have implications for primary care on childhood nutrition in vulnerable populations (e.g. low birth weight or children with a history of neonatal adversities).

Provided by Society for the Study of Ingestive Behavior

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