

# Sudden Infant Death Syndrome: Don't Forget the Guardian Angels

*Summary of the publication:*

*Herbert Renz-Polster, Peter Blair, Helen Ball, Oskar Jenni, Freia De Bock: Death from Failed Protection? An Evolutionary-Developmental Theory of Sudden Infant Death Syndrome. Human Nature, Vol. 35(2), (2024); <https://doi.org/10.1007/s12110-024-09474-6>*

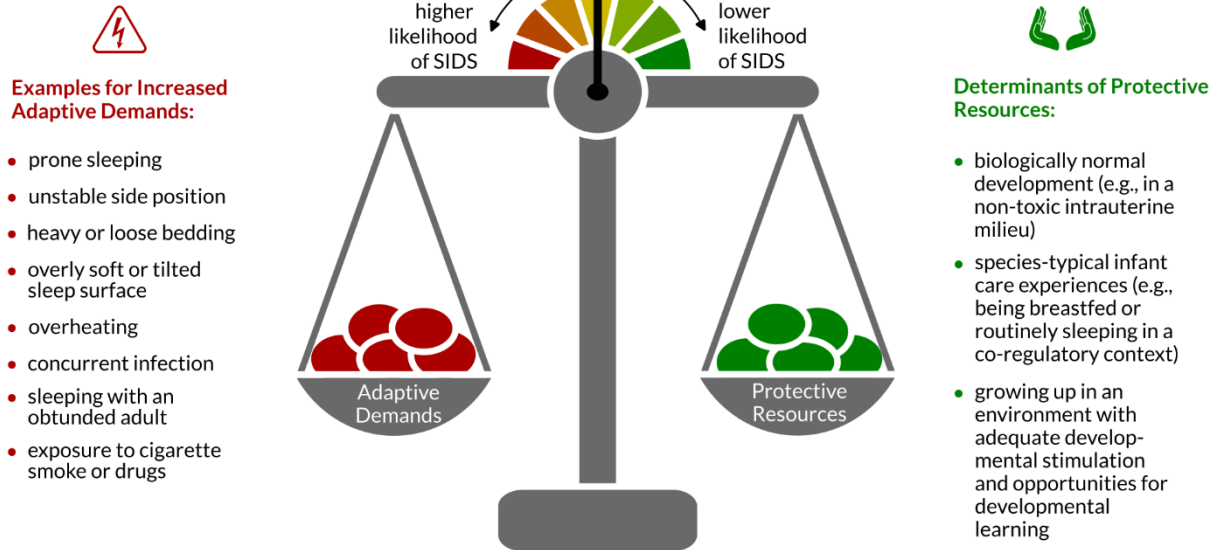
*Any reporting on this publication is embargoed until July 29, 2024 02:00 London Time (UTC + 2)*

Sudden infant death syndrome (SIDS) has so far been described mainly from a risk perspective. According to this perspective, internal (biological), external (environmental) and temporal risk factors interact to facilitate this catastrophic event. While these factors clearly play a role, their overall explanatory power appears to be low, as the vast majority of infants do not die of sudden infant death syndrome despite risk exposure. The authors discuss the limitations of the classical risk-based explanatory model using the example of the two most frequently discussed risk factors for SIDS, prone positioning and bedsharing. Based on these examples, they bring together findings from evolutionary theory, comparative behavioural research and developmental paediatrics to develop a new explanatory model of SIDS. According to this "evolutionary-developmental model", SIDS may be better understood if the question of resilience is addressed: which protective factors may be missing in SIDS victims and how do they normally develop? With this question in mind the authors describe SIDS as an imbalance between the biological-regulatory challenges that an infant currently has to meet and its currently available abilities for self-protection. Concretely, this imbalance may lead to SIDS when an infant fails to develop adequate protective behavioral skills and is then subjected to situations which require high amounts of physiological regulation (for example, when he or she slips into the prone position). Pursuant to this new model, SIDS centrally appears as an expression of insufficient developmental resources and thus as a developmental condition. Here, the authors make recourse to evolutionary theory which assumes that the development of the human infant in a species-typical environment should allow for the development of sufficient protective resources. They therefore view SIDS as a further example of an evolutionary maladaptation, i.e., as a constellation in which certain modern developmental influences undermine the child's evolutionary repertoire.

In summary, the authors argue that SIDS can be better understood if the focus on risk factors is complemented by a deeper understanding of the protective factors that human infants acquire during their normal development. The authors analyse and test this evolutionary-developmental theory in detail against the background of epidemiological and experimental findings from SIDS epidemiology and neurodevelopmental research and also address the as yet unresolved question of why breastfeeding could protect against SIDS. As to the practical implications of their theory they propose that their model may inspire both research and practice in public health. Here, a major problem has been that risk factors for SIDS are to be found in the vast majority of families, yet, in only a tiny number of cases will they translate into the tragic outcome of SIDS. A better understanding of protective factors may help define the group of vulnerable infants more precisely, may propose strategies for supporting the development of infants' protective behaviors and may thus lead to more specific and more effective prevention.

## Evolutionary-Developmental Model of SIDS

© <https://doi.org>



Here, SIDS is explained as a fatal imbalance between current adaptive demands and current protective resources

Graphic summary (extended supplementary material : [https://www.kinder-verstehen.de/wp-content/uploads/SIDS\\_HuNa\\_graph\\_summary\\_ESM-1-scaled.jpg](https://www.kinder-verstehen.de/wp-content/uploads/SIDS_HuNa_graph_summary_ESM-1-scaled.jpg))

More about the authors: <https://www.kinder-verstehen.de/wp-content/uploads/Author-biographies.pdf>

Full text of publication (available from: July 29, 2024): <https://doi.org/10.1007/s12110-024-09474-6>