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## Sleep: Why should I go early to bed?-answers by a pediatric endocrinologist

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A decrease in sleep duration has been reported in children and adolescents. It seems associated to later bedtime, attributed to aspects of modern life, like screen time and use of internet and smart phones. The results from the literature suggest that sleep restriction may be associated with long-term risk of significant morbidity. Both cross-sectional and longitudinal studies support an association between short sleep and the risk to develop overweight/obesity. Moreover some preliminary results show a link between too little sleep and worsening cardio metabolic risk (insulin resistance and increased waist circumference). Laboratory studies have given us some plausible mechanisms linking weight gain and short sleep. The appetite regulating hormones are dysregulated by sleep restriction with lower leptin and higher ghrelin levels. The endocannabinoid system is also influenced by sleep restriction promoting excessive food intake. Sleep restriction has been shown to influence the stress system (hypothalamic pituitary adrenal-sympathetic axis) and the cytokines. The sympathetic nervous system and the HPA axis activity are increased and the inflammatory markers are elevated. These have been linked to insulin resistance. Too little sleep during the night in children has been associated with an adverse effect on growth. Twenty-four hour GH studies in children suggest that a child can lose up to 1/3 to 1/4 of the nighttime GH peak secretion when he delays his bedtime. This may have a negative impact on his final height. Knowing that today many children and adolescents are chronically sleep deprived, these results are a major source of concern. They should inspire us to better address the issue of sleep in the daily routine of our practice. Prevention and screening of our patients for sleeping problems will not only ensure their daily well-being, but will promote a better long-term health.

## Biography

Jessica Arditi is a Pediatric Endocrinologist who currently works in her private practice in Athens, Greece. She has completed her MD, medical thesis, Pediatric Subspecialty and Diploma in Pediatric Endocrinology. In Athens, she has worked for more than 10 years in the Division of Endocrinology, Metabolism and Diabetes, 1st Department of Pediatrics, University of Athens, Agia Sophia Children's Hospital. She continues to work as a Scientific Associate of the Division.

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