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Título	Influence of Acute Melatonin Administration on Human Physical Performance: A Systematic Review
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Resumo	**Context:** Melatonin is an ancient molecule with a wide range of functions in mammals, such as antioxidant, anti-inflammatory, and hypothermic effects among others. However, the influence of acute melatonin administration on human physical performance is debatable. **Objective:** To summarize available data from controlled trials about the effects of acute melatonin administration on human physical performance, especially with respect to strength, power, speed, and short- and long-term continuous exercise. **Data Sources:** A systematic search of the PubMed, Web of Science, Scopus, Embase, and Cochrane databases up to December 10, 2021, was conducted using specified keywords and Boolean operators (“melatonin” AND “exercise OR circuit-based exercise OR plyometric exercise OR exercise tolerance OR exercise test”). **Study Selection:** Only controlled studies in the English language and with humans were accepted. **Study Design:** Systematic review. **Level of Evidence:** Level 1. **Data Extraction:** Participants’ characteristics (sex, age, body mass, height and fat percentage), melatonin dose and administration time, and outcomes from the performance trial were extracted. **Results:** A total of 10 studies were identified after the screening process. Overall, melatonin did not change speed or short-term continuous exercise performances. However, in relation to strength and power, the results are debatable since 5 articles showed no difference, while another 2 pointed to a decrease in performance. In terms of performance improvement, only 1 study reported an increase in balance and another in long-term continuous exercise performance in nonathletes, with no advantage found for athletes.

	Conclusion: Melatonin did not cause any significant change in strength, speed, power, and short-term continuous exercise performances. In fact, it led to reduced strength and power performances in specific tests. On the other hand, melatonin seems to have improved balance and long-term continuous exercise performance, at least in nonathletes. More investigations are required to corroborate these findings.
Fomento	