



# Association Between Alcohol Consumption and Nocturnal Leg Cramps

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## CURRENT SELECTION

### Article for Discussion

Delacour C, Chambe J, Lefebvre F, et al. Association between alcohol consumption and nocturnal leg cramps in patients over 60 years old: a case-control study. *Ann Fam Med*. 2018;16(4):296-301.

### Discussion Tips

Case-control studies can be useful to explore associations when diseases are rare or not well understood.<sup>2</sup> Nocturnal leg cramps are a common but relatively self-limited condition of unclear pathophysiology, although associations with various medications (such as diuretics and quinine) have been proposed. This case-control study explores an interesting and novel association between nocturnal leg cramps and alcohol consumption.

### Discussion Questions

- What question is asked by this study and why does it matter to a family physician?
- What is a case-control study?<sup>2</sup> How is this different from a cohort study?

- What are the strengths and weaknesses of a case-control study design to answer a study question?
- How did the researchers find cases and match to control subjects? How did the case and control groups compare in terms of demographics and medical history?
- What are the main study findings? How were these calculated? What was the credibility interval around the point estimate?
- To what degree might the findings be affected by:
  - How patients were selected, excluded, or lost to follow-up?
  - The size of the study? How many matches were included of the 4 different combinations (Supplemental Appendix 5)?
  - How the main variable of alcohol consumption was measured and categorized?
  - Confounding (false attribution of causality because 2 variables discovered to be associated actually are associated with a 3rd factor)?
  - Chance?
- What is a dose-effect relationship? Did they find a dose-effect relationship with alcohol? Does this strengthen or weaken the findings of the study?
- How comparable is the study sample to patients in your practice with nocturnal leg cramps?
- Is this study likely to change your clinical practice? In what way?
- What are the next steps to further investigate these findings?

## References

1. Stange KC, Miller WL, McLellan LA, et al. *Annals Journal Club: It's time to get RADICAL.* *Ann Fam Med*. 2006;4(3):196-197. <http://annfammed.org/cgi/content/full/4/3/196>.
2. Coggon D, Rose G, Barker DJP. Case-control and cross-sectional studies. In: *Epidemiology for the Uninitiated*. 4th ed. London, UK: The BMJ. <https://www.bmj.com/about-bmj/resources-readers/publications/epidemiology-uninitiated/8-case-control-and-cross-sectional>. Accessed Apr 12, 2018.