

Analysis narrows down the risks associated with seasonal time change

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An analysis conducted by the academics José María Martín Olalla (University of Seville) and Jorge Mira Pérez (University of Santiago de Compostela) narrows down the impact on health of the time change in

the week following the date of the change. To do so, they have analyzed eight papers that measure the influence on myocardial infarction and ischemia and five papers that do so on the basis of data on traffic accidents and admissions to accident and emergency for traumas. The study is published in the journal *Chronobiology International*.

The papers analyzed are among the most cited in the field and have been used in European Commission evaluation reports to question the viability of the practice of changing the time. The Spanish researchers analyzed the relationship between the publish risk increase and the total number of cases investigated, and they narrowed down the increase in the risks associated with the spring time change to 5%, while for the autumn time change they did not detect associated increases.

The authors point out that one of the European Commission's concerns when tackling the problem of the time change was that its health impact was greater than initially admitted, based on alarming news reports that occasionally appear in the media. Martín Olalla and Mira note that several of those alarming results are due to their being [statistical analyses](#) with low case numbers, which increases the margin of error in the final result.

Jorge Mira points out that its impact probably does not differ from that initially admitted and adds that "there are countries that have making the seasonal time change for more than 100 years without incident. Statistical techniques and meticulous record-keeping now make it possible to refine the calculations and identify health and [social impacts](#) that were formerly overlooked because they are small in comparison to the multiple factors affecting the problem."

The authors conclude by pointing out that the study of the risks associated with the time change is only one part of the evaluation process, which should also include a study of the risks associated with

not making the time change. Martín Olalla adds, "we have observed that making the time change has helped to not bring forward schedules in winter, something that doctors and physiologists are calling for because in itself it brings with it an improvement to social and health matters."

Previously, the same researchers had questioned a manifesto from the Sleep Research Society that proposed abolishing the time change in the United States and keeping winter time. "At our latitude, we will still have early sunrises in summer and late sunrises in winter; the time change is a way to connect the start of the working day with sunrise," Mira points out.

Martín Olalla adds that "the time change is a bit like changing wardrobe: nuisances caused by the seasons at our latitude; many people would find it unpleasant to wear sandals in winter or boots in summer." This paper has just been reviewed in a perspective on the time question published in the newsletter of the *Journal of the American Medical Association*

More information: José María Martín-Olalla et al, Sample size bias in the empirical assessment of the acute risks associated with daylight saving time transitions, *Chronobiology International* (2023). [DOI: 10.1080/07420528.2022.2157738](https://doi.org/10.1080/07420528.2022.2157738)

Rita Rubin, Groundswell Grows for Permanent Daylight Saving Time, but Medical Societies Overwhelmingly Support Year-Round Standard Time, *JAMA* (2023). [DOI: 10.1001/jama.2023.0159](https://doi.org/10.1001/jama.2023.0159)

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