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March 9, 2022

The Honorable Jan Schakowsky
Chairwoman, Subcommittee on Consumer Protection and Commerce
House Energy and Commerce Committee
2125 Rayburn House Office Building
Washington D.C. 20515

The Honorable Gus Bilirakis
Ranking Member, Subcommittee on Consumer Protection and Commerce
House Energy and Commerce Committee
2322 Rayburn House Office Building
Washington D.C. 20515

Dear Chairwoman Schakowsky and Ranking Member Bilirakis:

The American Academy of Sleep Medicine (AASM), on behalf of our membership, submits this letter for the record to the House of Representatives Subcommittee on Consumer Protection and Commerce of the Committee on Energy and Commerce hearing, “Changing Times: Revisiting Spring Forward, Fall Back.” We thank the subcommittee for holding this important hearing and appreciate the opportunity to comment on the impact of daylight saving time on sleep health.

Based in Darien, Illinois, the AASM is a professional society dedicated exclusively to the medical subspecialty of sleep medicine. As the leading voice in the sleep field, the AASM sets standards and promotes excellence in sleep medicine health care, education, and research. The AASM has a combined membership of 11,000 accredited member sleep centers and individual members, including physicians, scientists, and other health care professionals. Sleep is a biological necessity, and insufficient sleep and untreated sleep disorders are detrimental for health, well-being and public safety. The AASM advocates for policies that recognize that sleep is essential to health.

In the United States, the annual advance to daylight saving time in spring, and fall back to standard time in autumn, is required by law (although some exceptions are allowed under the statute). However, a survey commissioned by the AASM in 2020 found that [63% of respondents](#) said that they support the elimination of these seasonal time changes, and only 11% opposed it.

It is the position of the AASM that seasonal time changes should be eliminated in favor of a national, fixed, year-round time. Current evidence supports the adoption of year-round standard time, which aligns best with human circadian biology and provides distinct benefits for public health and safety.

Daylight saving time can cause misalignment between the biological clock and environmental clock, resulting in significant health and public safety-related consequences, especially in the days immediately following the annual change to daylight saving time. Accordingly, the AASM supports a switch to permanent standard time, which more closely aligns with the daily rhythms of the body's internal clock, as detailed in our published [daylight saving time position statement](#).

Shifting from standard time to daylight saving time each spring has been associated with increased cardiovascular morbidity, including risk of myocardial infarction,^{1,2} stroke,³ and hospital admissions due to the occurrence of acute atrial fibrillation.⁴ An increase in missed medical appointments and increased emergency room visits and return visits to the hospital are also seen only during the spring transition from standard time to daylight saving time.^{5,6} In addition, a study published in 2021 by Mayo Clinic researchers found an 18.7% increase in adverse medical events related to human error in the week after switching to daylight saving time.⁷

The one-hour time shift in the spring results in less exposure to light in the morning and greater exposure to evening light. In the presence of continuing social or occupational demands in early morning hours, this delay results in sleep loss and resultant sleep debt,⁸ in addition to circadian misalignment. The end result is a variety of cellular derangements, including altered myocyte gene expression,⁹ altered epigenetic and transcriptional profile of core clock genes,¹⁰ increased production of inflammatory markers,¹¹ lower vagal tone resulting in higher heart rate and blood pressure, and reduced sleep.¹²

Although most acute health-related effects are noted only when transitioning from standard time to daylight saving time, transitions both into and out of daylight saving time have been associated with sleep disruption, mood disturbances and suicide.¹³ Traffic accidents increase in the first few days after the change from standard time to daylight saving time,¹⁴ with an increase in fatal crashes of up to 6% in the United States.¹⁵

The long-term effects of permanent daylight saving time are less clear. Daylight saving time results in more darkness in the morning hours, and more light in the evening hours. Both early morning darkness and light in the evening have a similar effect on circadian phase, causing the endogenous rhythm to shift to later in the day. There is evidence that the body clock does not adjust to daylight saving time even after several months.¹⁶

Permanent daylight saving time could therefore result in permanent phase delay, a condition that can also lead to a perpetual discrepancy between the innate biological clock and the extrinsic environmental clock, as well as chronic sleep loss due to early morning social demands that truncate the opportunity to sleep. The chronic misalignment between the timing of demands of work, school, or other obligations against the innate circadian rhythm is called “social jet lag.”¹⁷ Studies show that social jet lag is associated with an increased risk of obesity,¹⁸ metabolic syndrome,¹⁹ cardiovascular disease,²⁰ and depression.²¹

We appreciate the committee's attention to this issue, as we believe the evidence clearly demonstrates the need to eliminate seasonal time changes. We also consider the evidence to best support the establishment of permanent standard time. Seasonal time changes negatively affect the health of Americans, and standard time more closely aligns with the body's natural circadian rhythm. Accordingly, the AASM urges Congress to pass legislation eliminating daylight saving time and making standard time permanent for the entire year. Please contact Eric Albrecht, AASM advocacy program manager, at (630) 737-9700 or ealbrecht@aasm.org with any questions. Thank you for your time and consideration.

Sincerely,

Raman K. Malhotra, MD, FAASM
President

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