

SRBR Talking Points about Daylight Saving Time (DST)

The talking points are meant to briefly address some key points raised by the media and laymen responses per Public Outreach Committee (POC) of the Society for Research on Biological Rhythms (SRBR). This is by no means the full scope of references, but we do have the key references, as well as the SRBR Position Paper on DST enclosed in this press kit to support our responses to the media. Please feel free to reach out to a SRBR POC at srbroureach@gmail.com in case you have any suggestions or comments.

Why do we care about Daylight Saving Time (DST)?

Approximately 1.6 billion people worldwide change their clocks twice a year to and from DST. This one-hour change in clock time to DST leads to decreased exposure to morning sunlight for some individuals (while DST is in place during the summer months in the US). Our body's internal biological clock needs exposure to morning sunlight to adjust to local time. When the exposure to sunlight in the morning is reduced, our biological clocks will drift later and later, making it harder to wake up. The one-hour shift in clock time during DST also exposes people to more evening light, which further pushes the biological clock to a later time and makes it more difficult to fall asleep. Because of the effect of reduced morning light and increased evening light on the biological clock, DST leads to sleep loss and a mismatch between the body clock and local time (also called social jetlag). Both sleep deprivation and social jetlag have negative effects on physical and mental health, including increased risks for diabetes, obesity, heart disease, depression, and some forms of cancer. Therefore, keeping DST during summer or all year round in the US, will have serious implications for public health and safety. These negative effects can be prevented by not switching to DST.

Why is permanent DST worse than permanent standard time?

DST means that we wake up in darkness and are exposed to more evening light, especially in the western parts of each of the time zones. Adhering to DST throughout the year would result in even more hours of morning darkness during winter for many people. This makes waking up more difficult for everyone, from school kids to adults, and is likely to worsen conditions such as seasonal affective disorders. Darker mornings and brighter evenings will push the circadian system later, and thus lead to later sleep timing. However, work and school hours do not change, so these later sleep times will result in more sleep deprivation and social jetlag (internal misalignment). As already mentioned, sleep deprivation and social jetlag have negative effects on physical and mental health, including increased risks for diabetes, obesity, heart disease, depression, and some forms of cancer. Brighter days and darker nights are critical for a healthier population year round. Thus, DST should be abolished, and we as biological rhythms experts clearly favor permanent Standard Time (when the clock times matches sun times).

Have we done permanent DST before?

In 1974, the United States decided to try permanent DST for two years, in order to save energy. At first, people were optimistic, with 79% in favor of the change. However, by February, after the first winter, support had dropped to 42%. This change of mind is likely due to the fact that waking up in the dark is harder. Keeping DST year-round also increases the duration of dark mornings in the winter! Most notably, energy savings were not seen under this permanent DST in 1974. In fact, permanent DST in 1974 in the US didn't make it for full two years: Congress rolled back the measure in a 383-to-16 vote, clearly demonstrating that this was a bad idea. Let's not replicate the errors of the past!

Is an increase in exercise during DST a good reason to stick to permanent DST?

Currently, DST occurs in spring, and ends after the summer. Those times of year are typically associated with more outdoor activities because of warmer temperatures. Although it has been argued that DST is associated with more physical activity during the summer months, it is more likely that the change in season is responsible for changes in physical activity patterns. It is also noteworthy that there is no direct evidence suggesting that permanent DST would be beneficial for physical activity during the winter months. Conversely, keeping Standard Time throughout the year (rather than DST) will not affect the seasonality of warmer temperatures and longer evening light in summer. Thus, it is unlikely that locking into Standard Time instead of DST will abolish the positive effects of exercise during the summer months.