Daylight Saving: Suggestions to Help Workers Adapt to the Time Change



Spring forward Fall back.

We all know the saying to help us remember to adjust our clocks for the daylight saving time changes (this Sunday in case you are wondering). But, what can we do to help workers adjust to the effects of the time change? A few studies have examined these issues but many questions remain on this topic including the best strategies to cope with the time changes.

By moving the clocks ahead one hour in the Spring, we lose one hour which shifts work times and other scheduled events one hour earlier. This pushes most people to have a one hour earlier bedtime and wake up time. In the Fall, time moves back one hour. We gain one hour which shifts work times and other scheduled events one hour later thereby pushing most people to have a one hour later bedtime and wake up time.

It can take about one week for the body to adjust the new times for sleeping, eating, and activity (Harrision, 2013). Until they have adjusted, people can have trouble falling asleep, staying asleep, and waking up at the right time. This can lead to sleep deprivation and reduction in performance, increasing the risk for mistakes including vehicle crashes. Workers can experience somewhat higher risks to both their health and safety after the time changes (Harrison, 2013). A study by Kirchberger and colleagues (2015) reported men and persons with heart disease may be at higher risk for a heart attack during the week after the time changes in the Spring and Fall.

The reason for these problems is thought to be disruption to circadian rhythms and sleep. Circadian rhythms are daily cycles of numerous hormones and other body functions that prepare us for the expected times for sleeping, eating, and activity. Circadian rhythms have difficulty adjusting to an abrupt one hour time change.

Other hazards for workers related to the time change in the Fall include a sudden change in the driving conditions in the late afternoon rush hour– from driving home from work during daylight hours to driving home in darkness. People may not have changed their driving habits to nighttime driving and might be at somewhat higher risk for a vehicle crash. Additionally, the Spring time change

leads to more daylight in the evening which may disturb some people's sleep.

To help reduce risks about one and a half weeks before the time changes in the Fall and Spring, employers can relay these points to help their workers.

- Remind workers that several days after the time changes are associated with somewhat higher health and safety risks due to disturbances to circadian rhythms and sleep.
- It can take one week for the body to adjust sleep times and circadian rhythms to the time change so consider reducing demanding physical and mental tasks as much as possible that week to allow oneself time to adjust.
- Remind workers to be especially vigilant while driving, at work, and at home to protect themselves since others around them may be sleepier and at risk for making an error that can cause a vehicle crash or other accident.
- Research found men and people with existing heart disease may be at risk for a heart attack after the time change.
- Workers can improve their adaptation to the time change by using these suggestions (American Academy of Sleep Medicine, 2013). Circadian rhythms and sleep are strongly influenced by several factors including timing of exposure to light and darkness, times of eating and exercise, and time of work. One way to help the body adjust is to gradually change the times for sleep, eating, and activity.
    - For the Spring time change, starting about three days before, one can gradually move up the timing of wakening and bedtime, meals, exercise, and exposure to light earlier by 15 – 20 minutes each day until these are in line with the new time. About one hour before bedtime, keep the lights dim and avoid electronic lit screens on computers, tablets, etc. to help the body move earlier the time it is ready to wake up in the morning and go to sleep at night.
    - For the Fall time change, starting about three days before, one can gradually move the timing of wakening and bedtime, meals, exercise, and exposure to light later by 15 – 20 minutes each day until these are in line with the new time. About 1 hour after awakening in the morning, you can keep the lights dim and avoid electronic lit screens on computers, tablets, and so forth can help the body move to a later time that it is ready to wake up in the morning and go to sleep at night.
    - Being sleep deprived before the time change will increase the health and safety risks so make it a priority to get enough sleep and be well rested several days before the time change.

Does the Time Change Effect Everyone Equally?

In short, no. People who sleep seven or less hours per day tend to have more problems with the time changes (Harrison, 2013). Additionally, a person's natural tendency to get up early and go to bed early or get up late and go to bed late may also influence their ability to adjust to the one hour time changes in the Spring and Fall (Adan et al., 2012; Harrison, 2013). Those prone to naturally follow an "early to bed and early to rise" pattern (morningness) will tend to have more difficulties adjusting to the Fall time change because this goes against their natural tenancies. Conversely, those who naturally follow a "late to bed and late to rise" routine (eveningness) will tend to have more trouble with the Spring time change.

Morningness/eveningness tends to change as people age. Teenagers and young

adults tend to be “evening” types, and researchers theorize this may be due to brain and body development at those ages. Younger workers therefore may have more difficulty adjusting to the Spring time change (Medina et al., 2015). Morningness increases as people age, so older adults tend to be “morning” types. As a result, older workers may have more trouble adjusting to the Fall time change. Finally, people who are on the extreme end of the eveningness or the morningness trait may tend to have more trouble adjusting their sleep to the time changes.

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