Risk Control BULLETIN

By: Robin Flint, Senior Risk Management Advisor November 2017

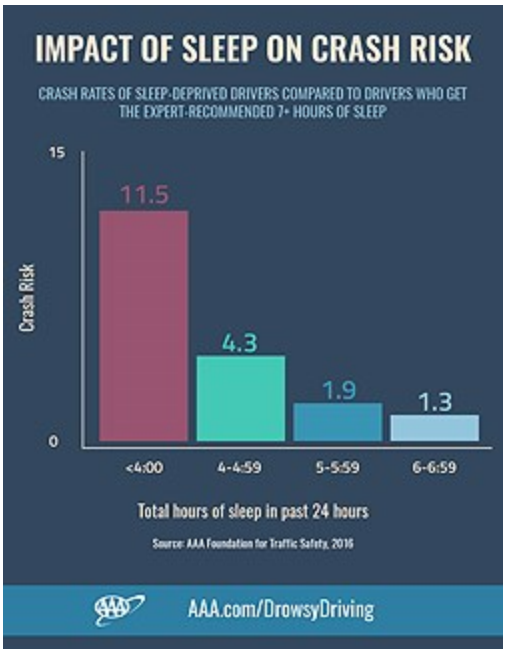
DEFENSIVE DRIVING: FALLING BACK TO STANDARD TIME

This year Pacific Daylight Time (PDT) ends on November 5, 2017, so it's a good time to hit the brakes and discuss the difference between our "societal" vs. "biological" clocks. A societal clock is the actual time displayed on a clock face. A biological or internal clock is the time your body believes it is. Whether you feel it or not, a body must adjust during a time change. In November, Pacific Time Zone states change from PDT, often called daylight savings time, to Pacific Standard Time (PST).

Those who acclimate quickly between time changes may not fully grasp the concept of a "biological" clock adjustment. If this is you, consider how jet lag affects travelers. Studies have shown a person's internal clock is affected through fatigue when traveling to a different time zone. For a traveler living on the west coast of the United States, the impact of jet lag is often felt the further the traveler goes east. Whether it's a traveler experiencing jet lag, or a person acclimating from PDT to PST, our biological clock must adjust.

Understanding why a person may feel fatigued while adjusting to a time change can be answered by *The National Sleep Foundation,* which reports our bodies work on a 24-hour cycle called "circadian rhythms." Circadian rhythms can influence sleep-wake cycles, eating habits, and other biological functions specific to each person, which is why some acclimate to time change seamlessly and others take more time to adjust. The main element influencing circadian rhythms is daylight, which means changing the light-dark cycles can speed up, slow down, or reset biological clocks as well as circadian rhythms.

Over the last ten years, the biological effects on people when changing to and from daylight savings to standard time has been researched by a number of universities. While these studies show no definitive link to time changes on the fluctuations to a person's sleep patterns, there is a general acceptance from these studies that even a one hour time change can have effects on the body, health, and traffic safety.



Bi-annually, the California Highway Patrol (CHP) prepares drivers for the fall or spring time change by issuing press releases alerting drivers to the dangers associated with drowsy driving. The CHP joined a national public awareness campaign by the National Sleep Foundation to promote *Drowsy Driving Awareness Week,* which is the week of the change between PDT to PST in November. Last year's release stated the November time change, "…can disrupt sleep patterns and may result in sleep-deprived drivers struggling with performance and concentration behind the wheel." The press release went on to state, "California has seen an increase in collisions involving sleepy or fatigued drivers over the last three years. In 2013, there were 4,284 collisions involving sleepy or fatigued drivers. The number increased to 4,693 in 2014, and to 5,511 in 2015. Over the same time span, those collisions resulted in the deaths of 28 people in 2013, 44 people in 2014, and 45 in 2015."

Traffic accidents during the first few weeks of a time change show fatalities are higher during the spring time change; however, additional data reflects traffic accidents are higher during hours of darkness rather than daylight hours. California's fall time change will have many workers commuting home during dusk or darkness. Drivers adjusting to lower outdoor illumination during a time change is one reason traffic accidents occur; yet a more significant factor is driver fatigue. Lack of sleep, an ergonomic personal risk factor, affects a worker's performance by reducing perception and reaction time. A risk associated with fatigue is most people who are drowsy don't realize it. In 2014, the AAA Foundation issued results of a four year study on drowsy driving. The *Prevalence of Motor Vehicle Crashes Involving Drowsy Drivers, United States, 2009 – 2013* report finds an, "…estimated 328,000 crashes each year, including 109,000 injury crashes, and 6,400 fatal crashes, involve a drowsy driver." The AAA Foundation conducted a study of sleep deprivation and crash risk and asserts, "Crash risk rises dramatically with only one to two hours of sleep less than the recommended average of seven hours of sleep per night."

Now that we've discussed our internal body clocks and crash facts associated with a fatigued driver, below are some suggestions to either fall back or spring forward to improved driving.

- ⚠ Get more sleep. In the fall use the extra hour for sleep. Adults should obtain an average of 7-9 hours of sleep per night.
- ⚠ Eat healthy and stay hydrated. Avoid caffeinated beverages as caffeine can disrupt your natural sleep rhythm.
- ⚠ Never drive while overtired. The only remedy for fatigue is sleep.
- ⚠ Increase your exposure to light and physical activity during the day.
- ⚠ Check, and if necessary, adjust your vehicle's interior lights. Some lights may have been dimmed during daylight savings time.
- ⚠ Pedestrians and anyone who enjoys walking, jogging, biking, or other outdoor activities in areas of vehicle traffic, should always wear high visibility garments or other reflective gear.

Another excellent resource on sleep impairment and appropriate countermeasures is in our **June 2017 Risk Control Bulletin**.

The JPIA's Commitment to Excellence (C2E) Program highlights "best practices" in reducing potential loss exposures or enhancing compliance standards. A JPIA loss reduction focus in our **Vehicle Operations Program** menu, is member participation in Defensive Driver training. Training may be conducted in-house or through external providers (e.g., JPIA, Target Solutions, etc.). If you have additional questions on defensive driver training, contact your Risk Advisor or the JPIA's Training Department.

Additional resources can be found at:

AAA Foundation Drowsy Driving
https://www.aaafoundation.org/drowsy-driving

Center for Disease Control
https://www.cdc.gov/sleep/index.html

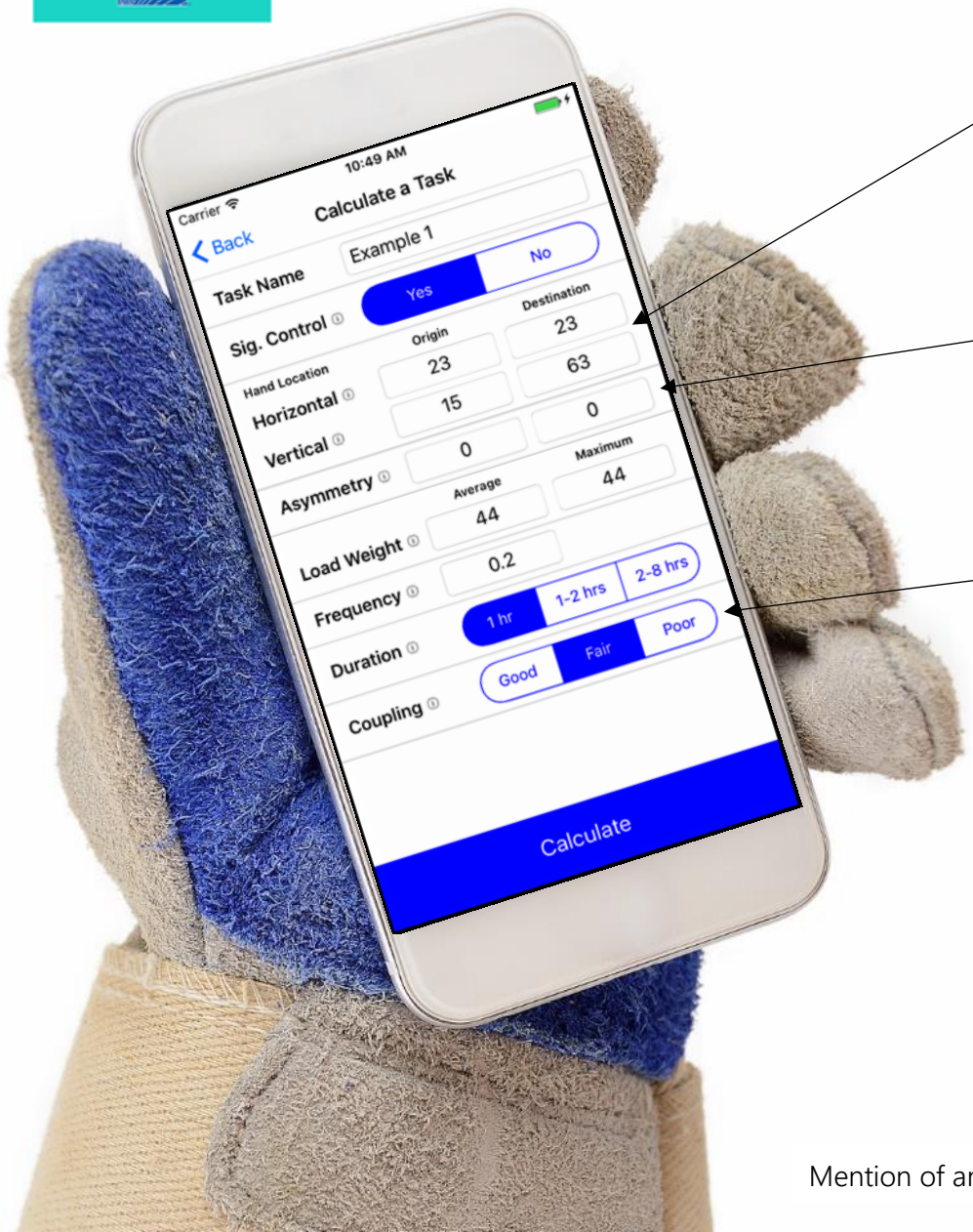
Sleep Foundation
https://sleepfoundation.org/

Ergo Corner

NLE

CDC

Protect yourself and your workers from musculoskeletal injury. Download and use the NIOSH lifting equation calculator (NLE Calc) app from Apple iTunes and Google Play



Enter the location of your hands in relation to their distance from the floor, your foot placement, and your posture

Take note of your posture as you handle the load. Are you facing straight ahead, or is your body twisted in some fashion?

Identify the quality of your grip on the load. Is it good, fair, or poor?

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Mention of any company or product does not constitute endorsement by NIOSH.

What's Wrong With This Picture?

Look at the photo below to identify what is wrong in the picture. You may want to review this picture during your next safety meeting.

H.R. LaBounty Safety Awards

The Safety Awards deadline for the fall round of awards closed on October 16. Nominations are accepted at any time and are held until the next ACWA JPIA Conference in Spring 2018.

This round of awards will be announced at the Fall Conference on November 27, 2017. The list of award winners will be posted on the JPIA's website at the link listed below.

Thank you letters and certificates will be mailed to award winners the week following conference.

Thank you to the JPIA members that participated in this program. A ***Program Description*** and ***Nomination Form*** can be found at the following link:

http://www.acwajpia.com/SafetyAwards.aspx

Answer - What's Wrong With This Picture?

This portable fire extinguisher is overcharged and may not operate as expected in the event of use. Cal/OSHA standard 8 CCR 6151 requires an employer to maintain portable fire extinguishers in a fully charged and operational condition for portable fire extinguishers. The standard also requires monthly visual inspection of portable fire extinguishers.

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