SEASONAL SAFETY

Less Daylight = More Injury Risk

October 29, 2010
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You've probably heard about seasonal affective disorder (SAD), wintertime depression and fatigue triggered by reduced hours of daylight. The disorder affects about five percent of the population and can be extremely debilitating if left untreated. However, tens of millions of North Americans experience early morning winter tiredness, without depression, and that fatigue can put them at increased risk for injury or death, both on the job and while driving to work.

A Seasonal Hangover

According to Dr. Michael Terman, director of the Center for Light Treatment and Biological Rhythms at Columbia University Medical Center, during months of reduced daytime light, about half the North American population experiences a morning "hangover" that has nothing to do with drinking alcohol.

It can take hours for this foggy state to disappear. Terman says his patients who have no difficulty awakening alert and ready to go when the sun streams in at 5 a.m. in June can't seem to get going at the same time in November.

This mental fogginess isn't imagined. There's a physiological reason for it: People are designed to awaken into light.

Our Body Clock Relies on Morning Light

"The function of early morning light is to prevent the circadian (body) clock from slipping (backwards)," Terman says. "The body clock controls a wide range of our functioning – our body temperature, the production of hormones, our rhythms of alertness and physical energy and our mood state – when during the day we are feeling better or worse."

During months of early morning darkness, the circadian clock slips backwards because the sun is not signaling people to awaken naturally. Why? Blame it on melatonin. Melatonin is a hormone vital to the body clock's operation. In the summer months, melatonin levels start to rise about 9:30 p.m. and people begin to feel sleepy. Melatonin levels drop off in the morning and we awaken.

But in months of reduced daylight, melatonin levels in a large percentage of the population do not begin to increase until as late as midnight. So when the alarm clock goes off at 5 or 6 a.m., the melatonin levels may still be high. This means that some people awaken extremely tired, finding it difficult to get out of bed and even getting to work on time.

What Workers Can Do

For reasons that aren't yet understood, half the population does not have this problem. Lucky them! But if you or some of your workers feel exhausted in the morning during the fall, winter and early spring, the solution is to use a light box to prevent body clock slippage.

But you can't just sit under any light bulb. It has to be a special light that simulates sunlight. These light boxes cost about $200. Advice on what type of light box to purchase is available from the non-profit **Center for Environmental Therapeutics (CET) [www.cet.org].**

Conclusion

Share this information with your workers and help make your workplace and the early morning drive to work a lot safer.