

Recent research on worker fatigue, and a toolbox to prevent it

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Pilots, truck drivers, soldiers in the U.S. military, wildfire fighters and nuclear power plant operators all have federally mandated hours-of-work limits to prevent fatigue. But what about your industry? And do mandated work limits solve all worker fatigue problems?

If worker fatigue could lead to an injury at your workplace, it'll pay to educate your employees about fatigue and how they can prevent it.

Scientists now have a greater understanding of just how important sleep is to our health. Sleep ramps up work done by the [glymphatic system](#) which gets rid of dangerous waste in the brain. In fact, this system operates almost exclusively during deep sleep.

This system pumps cerebral spinal fluid through the brain's tissues and flushes waste to the liver where it's ultimately eliminated.

Among the toxins that are cleaned out of the brain are proteins called beta-amyloid which has been linked to [Alzheimer's Disease](#).

Beta-amyloid causes brain cells to die.

The build-up of beta-amyloid in the brain also makes it more difficult to sleep, thus creating a vicious cycle.

This helps refute the argument made by some people: "I don't need that much sleep."

While exact amounts of sleep needed may vary somewhat, scientists are more adamant than ever in their recommendation for seven to nine hours of sleep per night are necessary for "good brain health" in adults.

Lack of sleep leads to decision-making errors, which in turn, in safety-sensitive jobs, leads to physical injuries, and even death.

What to do?

That's the bad news. The good news is that science is also producing tools people can use to help them get a good night's sleep.

That's the message from Dr. Christian Updike, Medical Director for Employee Health at HealthONE in Englewood,

CO. Dr. Updike presented a keynote session at the American Occupational Health Professionals in Healthcare (AOHP) conference in San Francisco.

And the issue couldn't be more important to the healthcare industry. Unlike the industries mentioned in the first paragraph of this story, there are no regulations to set limits on how many hours healthcare professionals can work in a week or month. So employee fatigue management is extremely important to the industry.

Here is what's in Dr. Updike's "effective toolbox of counter measures" to employee fatigue:

- Blue-blocking **sunglasses** for people who work the late-night shift (typically 11 p.m. to 7 a.m.). Being exposed to the blue light of dawn will make it more difficult for people working late nights to fall asleep after traveling home.
- Programs and **apps** that reduce blue light emanating from computer, smartphone and tablet screens at night. There are apps available for android phones and tablets. For iPhone and iPad users, their current choice may be limited to using the "invert colors" setting on their devices.
- Take better **naps**. Dr. Updike recommends this pattern: Drink a caffeinated beverage, take a 20-minute nap then go for a 5-minute walk. Reason: Caffeine takes about 20 minutes to kick in. If you're going to nap, choose 20 or 90 minutes. Avoid naps of around 45-60 minutes. Reason: Average sleep cycles last 90 minutes. Waking up in the middle of one of those cycles is what causes the "foggy brain" feeling.
- Schedule "**anchor sleep**." This means you sleep at least four hours each day at the same time.
- Encourage night workers to **talk more** to each other, including **joking around**. A study of night shift electrical line workers shows their informal system of talking to each other and joking around not only kept each other more alert, it helped identify workers who were becoming fatigued. Turns out your sense of humor is "one of the first things to go" when you start to suffer from fatigue.
- **Change the culture**. How often have you heard the suggestion that it's a badge of honor to keep working despite fatigue? Dr. Updike says that needs to change.
- Sleep **in a cave**. Well, not a literal cave, but conditions that are cave-like. Where earplugs. Keep the room cool: 68° is optimal for sleep. Consider wearing blinders to reduce light exposure, especially for night-shift workers who have to sleep during the day.
- Night shift workers should **switch** what they're doing more often, perhaps changing duties as often as every 30 minutes.
- Need a pick-me-up? Caffeine may not be the best bet. Try watching **funny videos** instead.
- **Reduce negative gossip** (not all gossip is bad) and staff conflict, which can contribute to emotional fatigue.
- **Schedule shifts** further in advance (Dr. Updike recommends 60 days ahead). This gives staff time to make social plans and avoids the "work resentment factor."

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