

Stretch, move around, and take naps

Dr. Don Melnychuk shows stretching techniques to help deal with drowsiness.

Brian Zinchuk, Pipeline News



Regina – It’s a chilling moment when an expert on fatigue realizes he almost fell asleep at the wheel while on the way to give a presentation on fatigue. Yet these are the things that can happen if you don’t allow yourself enough rest, and more specifically, sleep.

Fatigue risk management was the thrust of a presentation by Dr. Don Melnychuk, who spoke to the Enform Petroleum Safety Conference in Regina on November 2nd.

“Fatigue kills,” he said.

“Have a couple cups of coffee, you’ll be fine,” is what is often said, according to Melnychuk.

“Where we get into difficulty is when we have more demands, or excessive demands, than we have tools to deal with,” he said.

“The only stress and fatigue-free people are dead or heavily medicated,” he said to laughs from the audience.

Melnychuk spoke of a balance between demands and the tools to deal with it.

So much of your corporate culture, especially in the oil patch, is, “If you can’t cut it, you shouldn’t be in this job anyway. I don’t pay you to rest or sleep. I pay you to work,” is a common refrain he quipped. Yet an 18 to 20 minute power nap can provide three more hours of productive time, he noted.

“There’s no sleep inertia after that power nap, if you do it correctly. More isn’t necessarily better.”

“We all know the consequences of fatigue: decreased alertness, higher error rate, nodding off, reduced motivation, and especially for the young workers, increased tendency for risk-taking.”

“For some reason, the young workers seem to think these things are not going to happen to me, and suddenly they become one of the statistics, and the statistics are not good.”

“I come from Alberta. In 2008, we lost 160 people in the industrial worksites ... 160. When a police department loses someone, or the RCMP does, they have a national day of mourning. In Alberta, we almost lost one per every second day, and you might have got a two line paragraph in the paper, if you got that. How do we minimize that statistic?”

Workplace fatigue is a significant factor in workplace accidents, according to Melnychuk. Fatigue is a factor in over 50 per cent of single vehicle collisions, he said.

“Fatigue is a sense of impairment. You would not let one of your workers have three bottles of beer and go on a worksite. Yet for many of you here, that worker will have the same impairment as those three bottles of beer, and he’s operating dangerous equipment or driving home on a two or three hour stretch.”

“Like alcohol, it creates impairment.”

Seventeen hours of sustained wakefulness creates the equivalent impairment of a 0.05 per cent blood alcohol content, he said. Bump that up to 20 hours, and the level of impairment is similar to 0.10 per cent blood alcohol content.

“How do you do a breathalyzer for fatigue? You can’t,” he said.

A week of short sleep can build up. Melnychuk said, “We can build a sleep debt over time.”

If you shortchange yourself a few hours of sleep each day of the week, by Friday, you’re at the equivalent of having been up for 20 hours, he pointed out, with a similar level of impairment as mentioned above.

“We can identify fatigue factors, but cannot anticipate when we fall asleep.”

Asking the audience if they had ever had a five second “micro sleep” everyone in the room raised their hands.

“You need to pay attention to the signs of fatigue and take appropriate action,” he said.

Melnichuk spoke of his own experience of nearly falling asleep while driving from Edmonton to Calgary to do a safety meeting for Penn West. A little over half an hour from Calgary, he had a micro sleep. “Whether it was five, 10, 15 seconds, I don’t know. The rumble strips woke me up. Let me tell you, I had chills through my body. I had this vision: wouldn’t this have been a great headline – sleep expert on his way to give a meeting on sleep has a rollover and dies.”

Why did he miscalculate? He was still experiencing jetlag from a trip to Vietnam earlier in the week.

Defence mechanisms in a fatigue management plan include staffing balance, scheduling, overtime management, hours of work guidelines, sleep disorder treatment, workplace design, peer monitoring and alertness monitoring.

“Sleep disorders are prevalent, especially sleep apnea”, he said.

“Sleep apnea cannot be cured, but it can be controlled.”

“We’re designed to work in the daytime and sleep at night,” he said, speaking of circadian rhythms of the body. Some shift workers can’t sleep past noon when they work night shifts, for instance. “There’s no such thing as natural adaptation to night shift.”

“There are times in the day, around 2-3 o’clock in the afternoon, we have a mid-afternoon circadian trough. It’s actually built into our hardware.”

Accidents tend to spike in mid-afternoon during this time period.

Ways to improve productivity include starting with a good, reasonable and balanced breakfast. Hydration is also important. Go for a brisk walk, or take a 15 to 20 minute power nap.

Melnichuk is a big fan of the power nap, although he realizes it seems to be a non-starter with the oil patch. A few will abuse it, he acknowledged, but the vast majority will have improved productivity.

For more on Dr. Don, be sure to check out www.donmelnichuk.com