

If You've Ever Said "This Shift is Killing Me" ... part 2

In part 1 of this series I offered a look at the scientific findings around sleep and circadian rhythm disruption and the effect that has on the brain. The most striking response related to shift work (specifically overnights) and rapid rotation shifts came from Dr. John Violanti of the University of Buffalo: "Do you want to die younger? Look, you can work these shifts but it's going to hurt you."

Anyone who does shift work could tell you that. So I wanted to try understanding the thought process behind scheduling practices in our industry.

Disclaimer: *My sampling method was not a scientific process!* What I found were scheduling practices all over the map.

Out in Folsom, California, police dispatchers work 2x12 followed by 2x8. Tech Services Manager Sherri Rinkel says this is a schedule developed by the dispatchers themselves: "No one wanted to work more than 40 hours a week and this is what they proposed." The dispatchers work dedicated shifts, signing up for their preferred shifts every six months by seniority. Sherri says, "every now and then they propose a different type of schedule but this is the one they're most happy with." There's no overuse of sick time and she doesn't find a need to rotate people off the more "desirable" shifts.

Lynn Bowler, Support Services Manager of the Elk Grove Police Department, about 40 miles from Folsom, has a different opinion about that. Her dispatchers work the same schedule but they can only spend 18 months on their desired shift, picked by seniority. Then they have to give that up for six months after which they can go back. Her thought process is that it gives dispatchers with lower seniority the opportunity to get a break from less desirable shifts. Here in New Hampshire I sampled fire/EMS agencies. Scheduling runs the gamut from [5x8] to [2x12 days/2x12 nights] to [2x11 days/2x13 nights] to 24 hour shifts. The thought process behind scheduling varies as widely as the scheduling itself. In one agency the dispatch schedule was converted from [5x8] dedicated shifts to [2x12 days/2x12 nights] with the thought being it was good that no shift be more desirable than another. Another rapid rotation agency migrated from [5x8] to rapid rotation because the "dispatchers wanted more time off." The 24 hour shift dispatchers, covered by the same collective bargaining agreement as the firefighters, felt staying on the same rotation with the same officers was a better idea than rotating among the different groups. The thought was that by getting to better know the officers the dispatchers would be better able to anticipate the officers' needs in the field. I've also seen people writing about working three days, 12-14 hours, having one day off, then working two more and having two days off. People were being called back so often and were so fatigued they stopped answering their phones on down time and sheriff's deputies were *going to their homes* to notify them of callback. I've seen schedules that allow dispatchers who work twelve hours to be mandated for an additional six and have only six hours off before they return for another twelve.

In 2004, the CDC via NIOSH issued a publication on shift work that stated:

“A pattern of deteriorating performance on psychophysiological tests ...while working long hours was observed across study findings, particularly when 12-hours shifts combined with more than 40 hours of work week. Four studies that focused on...extended shifts reported that the 9th to 12th hours of work were associated with feelings of decreased alertness and increased fatigue, lower cognitive function, declines in vigilance on task measures, and increased injuries.” (Italics are mine).

[<http://www.cdc.gov/niosh/docs/2004-143/pdfs/2004-143.pdf>]

With all that we know, why do we require the people entrusted with the safety of *their responders and the public* to work this way?

Other industries that require 24/7 staffing have recognized the safety problems that arise from sleep deprivation and circadian rhythm disruption and have taken steps to alleviate them. Truckers are governed by very strict work/rest rules because their being fatigued is considered such a large public safety hazard. Essentially they need to stop driving after 10 hours with some nuances to that

rule. [<https://www.fmcsa.dot.gov/regulations/title49/section/395.3>]

Medical interns used to be scheduled for 36 hour shifts. In 2003 that was reduced to 30 hours including being allowed to work “only” 80 hours per work week and in 2011 shifts were reduced again... to 16 hours. Former dean of Jefferson Medical College in Philadelphia put it this way, “The old model of internship is flawed and unacceptable. It’s why there is a July or August effect... the [annual spike in deaths](#) at teaching hospitals when interns arrive.”

[https://www.washingtonpost.com/national/health-science/medical-interns-may-be-more-awake-but-are-they-getting-enough-training/2013/07/08/e7886116-cec9-11e2-8845-d970ccb04497_story.html]

The questions I have seem obvious to me:

- Have we as an industry engineered our scheduling practices in a way that life changing mistakes are inevitable?
- Are the people doing shift work and rapid rotation shifts so superhuman that they never make mistakes or are they teetering... daily ...on the brink of disaster?
- Are we setting up our people for a lifetime of poor health while working... and infirmity upon retirement?

I think one of the most important questions is: *What might we do to change some of what’s compromising people in the field?*

At Lakes Region Mutual Fire Aid in New Hampshire, a regional fire/EMS dispatch center, dispatchers work rapid rotation shifts. Their Deputy Coordinator, John Beland, attended a presentation on sleep and circadian rhythm disruption hosted by NH 9-1-1. He followed up by consulting with Dr. Michele Gaier Rush, Medical Director of the Sleep Evaluation Center at Lakes Region General Healthcare and Speare Memorial Hospital. As a result of that consultation, LRMFA will be taking what seems an unprecedented step: changing scheduling

from rapid rotation [2x11 days/2x13 nights] to dedicated 12 hour shifts with a 90 day rotation. According to Dr. Rush that "is so much better." She says rapid rotation shifts are "dangerous...the brain cannot adapt that quickly, [it] doesn't work that way, it just can't recover. People think they're okay and *they're not*." While she believes dedicated shifts with no rotation is the best approach because "the brain likes consistency," she also says people can be successful at changing shifts, "just not every two or three days."

We have science that shows us it's not about being tough, being able to "take it." It's no longer about personal responsibility when someone's sleep cycle and/or circadian rhythm is broken. We're talking about the actual fact that people who are impaired are being tasked with the safety of their responders and the public on a daily basis nationwide.

If LRMFA can have the flexibility and open-mindedness to change their scheduling based on science, then I think it's time for us as a community...as an industry...to begin a national policy discussion around scheduling practices. Things aren't going to change quickly and they may have to change agency by agency, but I cannot state strongly enough that some practices have to change. Someone's life depends on it.

Next up: Part 3. While we're trying to move this behemoth of an industry entrenched in the mindset of "that's the way we've always done it," how do we stay as healthy as we can while doing shift work? Hint: It's not "one size fits all."