



SAFETY TIPS

Combating Shift-Work Fatigue

Why is fatigue such a problem for shift workers?

For most people, their body clocks or circadian rhythms tell them that daytime is the time to be alert, awake, and productive. Therefore, it can be very difficult to adjust to a schedule that is the opposite of what the human body naturally wants to do, especially if the hours of work keep changing, as they do for so many workers on rotating shifts.

This factor causes workers to be less likely to respond quickly and appropriately to emergencies. Shift workers fighting sleep may even lapse into a trance-like state called “automatic behavior syndrome,” in which their eyes are open, but they are not totally cognizant and alert.

Tips from NIOSH

The National Institute for Occupational Safety and Health, which has studied shift work safety issues for years, suggests these seven practical strategies to improve the safety, health, and productivity of shift workers.

- Avoid quick shift changes. A break of only 7 to 10 hours before rotating to a new shift, such as from morning to night on the same day of the week, should be avoided. Quick or close schedule changes make it difficult for a shift worker to get quality rest before going back to work. On the return to work after a quick shift change, most workers feel very tired and sleepy, and this can lead to accidents. At the end of a night shift, a break of at least 24 hours is recommended before rotating to another shift.
- Avoid several days of work followed by 4 to 7-day breaks. Working for several days in a row followed by several days off can be very fatiguing. Many shift workers find it difficult to return to the night shift after several days spent on a daytime schedule during their time off.
- Be aware of high-risk times. Managers and supervisors of night workers should be aware of the high-risk times when workers may not realize they are tired. Most accidents occur between 1 a.m. and 6 a.m., near the end of the shift, when activity levels are high in the work area, or on the first two night shifts after working days or having days off.
- Examine rest breaks. Standard lunch and rest breaks taken during the shift may not be enough for night workers to remain safe and productive. In jobs requiring repetitive physical work or great concentration, brief rest breaks each hour are better for recovery from physical and mental fatigue.
- Keep consecutive night shifts to a minimum. Some researchers suggest that only two to four nights in a row should be worked before a few days off. This keeps circadian rhythms from being overly disturbed and limits sleep loss.
- Keep long shifts to a minimum. If 12-hour shifts are used, two or three consecutive 12-hour shifts should be the maximum. Longer night shifts should be avoided. When it's not possible to avoid them, heavy work should be moved to shorter or day shifts and lighter work to the longer night shift.
- Keep the schedule regular and predictable. Shift workers should know their schedules well ahead of time so they can plan their sleep and rest periods. Past studies of train accidents show a correlation between irregular schedules and accidents.