Shift Work Dangers Meeting Kit



The term “rotational shiftwork” covers a wide variety of work schedules and implies that shifts rotate or change according to a set schedule. These shifts can be either continuous, running 24 hours per day, 7 days per week, or semi-continuous, running 2 or 3 shifts per day with or without weekends. Workers take turns working on all shifts that are part of a particular system.

Shiftwork is a reality for about 25 percent of the North American working population. Interest in the effects of shiftwork on people has developed because many experts have blamed rotating shifts for the “human error” connected with nuclear power plant incidents, air crashes, and other catastrophic accidents.

DISRUPTION OF CIRCADIAN RHYTHM – THE MAIN HAZARD

The main hazard of shift work is that it disrupts a person’s circadian rhythm. Psychology Today describes circadian rhythm as follows: “Often referred to the “body clock”, the circadian rhythm is a cycle that tells our bodies when to sleep, rise, eat—regulating many physiological processes.” This rhythm is important because it regulates many of our physiological processes and when it is disrupted there can be many negative health effects. A study completed at Rockefeller University found that mice that had their circadian rhythm disrupted experienced weight gain, impulsivity, slower thinking, and other physiological and behavioral changes. So much research has been linked negative health effects to shift work that the International Agency on the Research of Cancer listed shift work as “probably carcinogen to humans” in 2007.

Hazards Created by Shift Work on the Job

Not only are there hazards to your health due to shift work, but there are also hazards in the workplace for individuals on these shifts. Some of the hazards created by shift work are:

- Inability to focus- less focus can lead to mistakes and thus injuries occurring on the job.
- Fatigue is a major issue in the workplace for workers who work regular hours. Those working shift work are put at even higher risks for fatigue related incidents.
- In some industries, there can be an increase likelihood of workplace violence at night (i.e. robberies).
- Increased stress levels due to not seeing family or health issues can lead to decreased job performance.

THE RISK OF SHIFT WORK

If you don’t plan an organised approach to managing shift work, it can have a negative effect both financially and morally on staff. The consequences can include:

- increased sickness absence
- increased worker fatigue
- reduced productivity
- risk of fatigue-related accidents
- increased costs from absenteeism, accidents, process shutdown
- increased staff turnover
- the potential for compensation claims.

IOSH) found that individuals actions (performance and alertness) are lower at night than during the day, and lower on 12 hour shifts than eight-hour ones due to the acute effects on mood and performance from workload and job demands.

RISKS TO WORKERS

Although all workers can be affected by working shift patterns, some may be more vulnerable than others, these include:

- young and older workers
- new and expectant mothers
- workers with pre-existing health conditions
- workers taking time-dependent medication such as insulin.

Night shift workers may be prone to disturbed and irregular sleep, which can lead to ‘sleep debt’ and fatigue. Sleep is often lighter, shorter and more easily disturbed because of daytime noise and a natural reluctance to sleep during daylight. This interferes with hormone balance and upsets the body clock.

Shift workers are at increased risk of a variety of physical and mental health problems, as well as social issues. **The physical aspects can include:**

- heart disease
- gastrointestinal diseases
- effects on the metabolism may lead to obesity
- reproductive difficulties.

Workers’ mental health can also be affected by:

- mood swings
- depression
- slowed reactions
- loss of social relationships.

SAFETY CONCERNS ASSOCIATED WITH WORKING SHIFTS

The Institute for Work and Health (IWH) reports that there is strong evidence that night, evening, rotating and irregular shifts are associated with in increased risk of occupational injury. This risk is associated with worker fatigue, and less supervision and co-worker support during non-daytime shifts.

One study reported that night shift had the most incidents, followed by afternoon shifts (least incidents in the morning shift). The risk of an incident was 20% more during the first to second hour of a night shift, as well as a small raise between 3

and 4 am. More incidents are reported on the 4th successive night shift than the first night shift.

FINAL WORD

We all have to make a living and provide for our families, but if you have to do shift work it is important to understand the hazards. There are steps you can take to combat some of the negative effects of shift work. One step is to try to keep on the same shift and maintain the same sleep/awake cycle. Another step is to eat right and drink plenty of water to aid your body in its physiological processes.