

Shift work doesn't come without adverse effects on your overall health

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Shift work has been defined as working outside normal daylight hours (9 a.m.-5 p.m.) and is different from workplace to workplace, varying from permanent shifts to regular rotations.

Shift work evolved to allow for continuous services and production 24 hours a day, and is mandatory in such jobs as firefighting, health care and policing.

Shift work does not come without adverse health effects, however, the major one being interruption of our natural circadian rhythm.

Our bodies are governed by an internal clock that works to repair and maintain operation of our bodies throughout a 24-hour day.

If interrupted, a number of physiological functions show distinct rhythmic changes in the course of a 24-hour period, affecting our heart rate and body temperature, which are both lowest at around 4 a.m. and peak in mid-afternoon.

These circadian rhythms are regulated by a so-called biological clock, which is reset every 24 hours by environmental cues such as light and dark.

Evolution has dictated that the human body is meant to be active during daytime hours. During nighttime hours it is meant to sleep, allowing recovery and restoration of energy.

Working at night and sleeping during the day is opposite to the body's biological clock and has resultant adverse health effects.

Altering our circadian rhythms results in changes in performance, and may adversely affect the health and safety of workers on night shift.

Other health effects of shift work include digestive disorders, sleep disturbances, fatigue and some psychological/psychiatric changes including anxiety and depression secondary to stress.

There are certain things you can do to improve the negative effects of shift work. These include:

- Maintaining regular eating patterns with well-balanced meals;
- Avoiding junk food and excessive fat;
- Relaxing during meals and allowing time for digestion;
- Timing meals carefully and paying attention to the type of food eaten including drinking lots of water, and balancing vegetables, fruit, lean meat, poultry, fish and dairy products according to the Canada Food Guide.

Avoid greasy foods

You should avoid greasy foods, especially at night, to improve digestion while on night shift.

You should also avoid excessive use of medication including antacids, tranquilizers and sleeping pills.

Sleep should be on a set schedule to help establish a new routine and make sleeping during the day easier. Family and friends should be made aware and considerate of the workers sleep hours and needs. The shift worker should have a comfortable quiet place to sleep during the day.

Air conditioning, telephone answering machines, foam earplugs and good blinds are all examples of devices that may improve daytime sleep pattern.

Strenuous exercise should be avoided prior to sleeping since it is known that this increases the rate at which the body uses energy and

is maintained for several hours after exercise, making it difficult to fall asleep.

Making time for quiet relaxation before bed will facilitate a better sleep pattern. These techniques include muscle relaxation and breathing exercises.

There are certain lifestyle factors that may enhance your body's ability to handle changes in your work hours. Physical fitness is key, and helps the body adjust to the negative effects of shift work and improves quality of sleep.

Secondly, stress reduction techniques are important.

Thirdly, scheduling at least one daily family meal is good for your eating habits and helps keep good communication channels open among family members in your altered shift pattern.

Socialization with other shift workers and their families' helps to minimize the disruption that shift work can have on your social life.

Finally, there are certain shift patterns that are beneficial physiologically, and these can be implemented through your joint health and safety committee at your workplace.

If you have further inquiries concerning healthy management of shift work, contact the Occupational Health Clinics for Ontario Workers Inc.-Sudbury.

• Dr. Joel Andersen is an occupational physician with the Occupational Health Clinic (Sudbury), whose column appears monthly in The Sudbury Star. If you have an occupational health topic you would like addressed in a column, contact the Occupational Health Clinics for Ontario Workers Inc. in Sudbury at 523-2330.