**Purpose**

To ensure our employees recognize the effect of fatigue as related to safely being able to perform work and to establish guidelines for work hours and equipment to reduce fatigue in our business and at our client locations.

**Scope**

This program applies to all Company projects and operations.

**Policy**

The guiding principles of fatigue management shall be incorporated into the normal management functions of the business and include the following:

* Employees must be in a fit state to undertake work
* Employees must be fit to complete work
* Employees must take minimum periods of rest to safely perform their work

These principles will be managed through:

* The appropriate planning of work tasks, including driving, vehicle, and equipment maintenance, loading, and unloading and other job-related duties and processes such as:
* Providing appropriate equipment to help reduce stress and fatigue
* Regular medical checkups and monitoring of health issues as required by legislation
* The provision of appropriate sleeping accommodations where required
* Ongoing training and awareness of employee health and fatigue issues

**Fatigue**…is a state of mental and/or physical exhaustion which reduces a person’s ability to perform work safely and effectively. Fatigue is the result of not getting enough sleep. Managing fatigue is one component of the approach to employee well-being.

**Key Responsibilities - Company Management**

Management accepts responsibility for the implementation of this fatigue management policy.

**Site Manager**

Responsible for the implementation and maintenance of this program for their site and ensuring all assets are made available for compliance with the program.

**Employees**

* Employees must present in a fit state free from alcohol and drugs;
* Employees must not chronically use over the counter or prescription drugs to increase mental alertness.
* Employees are prohibited from taking any substance known to increase fatigue in that employee, including fatigue that sets in after the effects of the drug wear off.
* Workers shall report tiredness/fatigue to supervision and supervisors shall take appropriate action to assist the worker.
* Employees must report fatigue/tiredness and lack of mental acuity to supervision. Supervision must take appropriate actions to prevent loss.
* Employees need to be rested prior to starting work.
* Employees need to monitor their own performance and take regular periods of rest to avoid continuing work when tired.

The first step in managing the hazard posed by fatigue is understanding how the hazard is created.

1. The best way to control fatigue is to eliminate the factors causing fatigue such as driving at night (which is a high-risk task).
2. Substituting safer practices such as increasing the length of breaks in a shift.
3. Engineering controls such as improving ventilation and heating to improve alertness – may be necessary for shift arrangements.
4. Procedures and training programs are critical supports to effective control of fatigue – set work hour limitations and job rotation schedules.
5. The use of gloves for vibration work or better hearing protection over an 8-hour work period can reduce fatigue.

Regular inspections and auditing of all aspects of fatigue management will ensure that risk controls are working as they should be.

It’s important to remember there’s no way of knowing how a worker may respond to fatigue and how it could impact them and their co-worker’s health and safety. Let us look at some examples of fatigue signs.

**Signs of fatigue (Physical / Mental / Emotional)**

Signs and symptoms of fatigue include:

* tiredness,
* sleepiness, including falling asleep against your will ("micro" sleeps),
* irritability,
* depression,
* giddiness,
* loss of appetite,
* digestive problems, and
* increased susceptibility to illness.

**Effects of fatigue and their relationship to work**

Because fatigue cannot be "measured", it is difficult to separate the effects of long working hours or lack of sleep from any changes in accident or injury rates.

However, studies report the effects of fatigue as:

* reduced decision-making ability,
* reduced ability to do complex planning,
* reduced communication skills,
* reduced productivity / performance,
* reduced attention and vigilance,
* reduced ability to handle stress on the job,
* reduced reaction time - both in speed and thought,
* loss of memory or the ability to recall details,
* failure to respond to changes in surroundings or information provided,
* unable to stay awake (e.g., falling asleep while operating machinery or driving a vehicle),
* increased tendency for risk-taking,
* increased forgetfulness,
* increased errors in judgement,
* increased sick time, absenteeism, rate of turnover,
* increased medical costs, and
* increased accident rates.

**Causes of fatigue**

There are many causes of fatigue.

Work-related factors may include long work hours, long hours of physical or mental activity, insufficient break time between shifts, inadequate rest, excessive stress, or a combination of these factors.

Sometimes, a sleep disorder may cause fatigue. You should ask your doctor or health professional for more information. These conditions include:

**1. Insomnia**

People who suffer from insomnia often complain that they cannot fall asleep or cannot stay asleep for a full night. They may frequently wake up during the night, wake up too early, not able to fall asleep at night, or have difficulty getting back to sleep if woken. Either way, they do not feel rested. Insomnia can be both short term (in response to a stressful event or change in environment) or long term.

**2. Sleep Apnea**

Most cases of sleep apnea are caused by a condition called "Obstructive Sleep Apnea". Sleep apnea is a breathing disorder in which there are brief interruptions (lasting at least 10 seconds) in breathing. This condition is caused by a narrowing (or collapse) of the throat or upper airway during sleep. This narrowing restricts or prevents breathing while you are sleeping (air cannot flow into or out of your nose and mouth even though your body continues to try to breathe). With sleep apnea, there are frequent interruptions to sleep making your sleep unrestful. People often complain of early morning headaches and excessive daytime sleepiness.

Symptoms of sleep apnea include:

* chronic, loud snoring,
* gasping or choking while sleeping,
* excessive daytime sleepiness, and
* personality changes or difficulties thinking.

**3. Restless Legs Syndrome**

With restless legs syndrome, people report sensations of creeping, crawling, pulling, or tingling which cause an irresistible urge to move their legs. This phenomenon usually happens as a person is trying to fall asleep, making sleep difficult. Movements may also occur during sleep, partially waking the person (even though they might not "notice") and disrupting sleep patterns.

**4. Narcolepsy**

Narcolepsy is a rare condition associated with sudden sleep "attacks" where a person will have an uncontrollable urge to sleep many times in one day.

**5. Other Situations**

Substances such as nicotine, caffeine, and alcohol can affect the quality of sleep. Caffeine can remain in the body for about 3 to 7 hours and may affect sleep. Alcohol may shorten the time to fall asleep, but it disrupts later in the night. Nicotine also can disrupt sleep and reduce total sleep time.

Other substances such as over-the-counter medications or prescriptions may also affect sleep. For example, long-acting benzodiazepines (drugs used to relieve anxiety or insomnia) may contribute to daytime sleepiness.

**How much sleep do people need?**

It varies, but on average studies say we need at least 7.5 to 8.5 hours every day. Studies have reported that most night workers get about 5 to 7 hours less sleep per week than the day shift. (You can accumulate a sleep "debt", but not a surplus.)

Humans follow an "internal" or "biological clock" cycle of sleep, wakefulness, and alertness. Although these "circadian" rhythms are influenced by external clues such as the sun setting and rising, it is the brain that sets your pattern. Most cycles are 23-25 hours long and there are natural dips or periods when you feel tired or less alert - even for those who are well-rested.

**How can I get a "better" sleep**

**Prevention**

If you suspect you may have a medical condition that interferes with your sleep, go to your doctor, and have any concerns investigated.

**Sleep Hygiene**

There is no one way to get a good sleep - what works for one person may not work for another. In general, suggestions include:

* Go to bed and get up at the same time every day.
* Exercise regularly.
* Eat at regular intervals and consume a balanced diet of fruits, vegetables, whole grains, healthy fats and protein.
* Use your bed primarily just for sleeping (e.g., do not watch television, read, or do work in bed).
* If you are not sleepy, do not try to go to bed. Get up and read or do something quiet instead.
* Avoid caffeine, tobacco, or alcohol - especially before bedtime.
* Turn off the telephone ringer and answering machine speaker.
* Ask family members to be respectful if one person is sleeping. Family members can use headphones for the TV and radio if necessary.
* Make the room as dark and quiet as possible. Use heavy, dark curtains, blinds, or a sleeping eye mask. Soundproof the room where possible or use ear plugs.
* Most people sleep better when the room is cool. Consider using an air conditioner or fan in the summer months.

**Strategies to minimize fatigue**

* Training workers and supervisors to recognize the causes and symptoms of fatigue is the best and most reasonable control that can be taught – making them understand that they need to sleep.
* Critical work, elevated risk work should be completed when a worker is expected to be most alert. (9a-1pm)
* During extended work shift any worker beyond the 8-hour typical workday or periods of temperature extreme (hot / cold).
* The addition of extra workers could assist in managing the hazard posed by fatigue.

**Tips for "good" eating habits that help encourage sleep**

The Dietitians of Canada have made the following recommendations:

**1. Establish Regular Eating Times**

Our bodies need energy provided by food to be able to perform our daily activities. Having meals at regular times is important to function at our best. If you tend to skip meals or eat at irregular times, you may experience fatigue, food cravings or increased eating at the next meal. Aim to have at least three meals a day including a variety of foods from the four food groups of Canada's Food Guide.

**2. Snack Ideas for Your Work Break(s)**

Having snacks in between meals is a great way to keep us nourished and give us the energy we need to complete our work shifts. At breaks, opt for healthy snacks that include combinations of a variety of foods from the four food groups. Here are some ideas:

* crackers and cheese,
* social tea cookies and milk,
* yogurt and a small low-fat muffin,
* celery sticks with peanut butter,
* baby carrots with low fat cream cheese dip,
* cut up fresh fruit mixed with plain yogurt.

**3. Check your Caffeine Intake**

Excessive intake of caffeine can cause insomnia, headaches, irritability and nervousness. It is recommended that foods containing caffeine should not be consumed five hours before sleeping.

Common caffeine sources include:

* coffee,
* tea,
* iced tea,
* cola drinks,
* chocolate,
* headache relievers.

Alternatives:

* decaffeinated coffee or tea,
* non-cola beverages,
* water.

**Snacks for sleeping well**

Going to bed with an empty stomach or immediately after a heavy meal can interfere with sleep. If you get home hungry, have a snack that is low in fat and easy to digest. A light snack before going to bed helps in getting a good restful sleep. Examples include:

* cereal with milk,
* fresh fruit and yogurt,
* oatmeal with raisins,
* digestive cookies and milk,
* piece of toast with a small banana,
* multigrain bagel, toasted and lightly buttered.

From: The Dietitians of Canada, 2002. (Personal communication)

**Tips if driving**

The best advice is not to drive if you are tired. However, some tips include:

* Keep the vehicle well ventilated.
* Avoid caffeine or other drugs to keep you awake (you will feel very tired when they wear off).
* Listen to the radio (especially "talk" radio).
* Eat lightly and avoid heavy fatty foods.
* Stop often (about every two hours). Take a walk and get some fresh air.
* Change drivers if you are travelling with others.

**Workplace helps keep worker's "alert"**

Fatigue is increased by:

* dim lighting,
* limited visual acuity (i.e., due to weather),
* Hot temperatures,
* high noise,
* high comfort,
* tasks which must be sustained for extended periods of time, and
* work tasks which are long, repetitive, paced, difficult, boring, and monotonous.

Workplaces can help by providing environments which have good lighting, comfortable temperatures, and reasonable noise levels. Work tasks should provide a variety of interest and tasks should change throughout the shift.

If extended hours/overtime are common, remember to consider the time required to commute home, meal preparation, eating, socializing with family, etc. Workplaces may wish to consider providing:

* on-site accommodations,
* prepared meals for workers, and
* facilities where employees can take a nap before they drive home.

For more information on extended workdays and shift work, please see the following OSH Answers documents:

* Extended Workday: Health & Safety Issues
* Rotational Shiftwork

**Work Hour Limitations**

The company has set the following work hour limitations and will control job rotation schedules to control fatigue, allow for sufficient sleep and to increase mental fitness.

1. Every Employee shall have necessary work breaks to avoid fatigue. These scheduled breaks will apply to both driving and on-site hours. The following shall be a minimum:

* 15 Minutes each 2.5 hours
* 30 Minutes after 5 Hours
* 30 Minutes after 10 Hours

2. No Workers shall work more than:

* 12 hours per day
* 24 Days Continuous

3. Unfamiliar or irregular work should be avoided.

**Training**

Company is committed to ensuring that all employees are competent to perform their tasks including:

* Fatigue management and health issues.
* The company will provide initial and annual training on how to recognize fatigue, how to control fatigue through appropriate work and personal habits and reporting of fatigue to supervision.

A record of individual fatigue training and competency will be maintained.

**Equipment and Evaluation**

The company will provide equipment such as anti‐fatigue mats for standing, lift assist devices for repetitive lifting and other ergonomic devices as deemed appropriate, chairs for workers to sit periodically and will provide periodic rest breaks for personnel. The company will also periodically analyze and evaluate work tasks to control fatigue.