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# Fatigue Management in the Workplace

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*NLOHSA Conference – Gander 2016*



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# ***Fatigue Management in the Workplace***

## **Overview**

- **Fatigue Defined**
- **Important Definitions**
- **Signs and Symptoms**
- **Fatigue Research**
- **Effects of Fatigue in the Workplace**
- **Identifying Fatigue**
- **Sample Fatigue Risk Assessment**
- **Individual Defenses**
- **Company Defenses**
- **References**
- **Questions**



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# ***Fatigue Management in the Workplace***

## **What is Fatigue?**

- ***Fatigue*** is the state of feeling very tired, weary or sleepy resulting from unsatisfactory sleep, prolonged mental or physical work, or lengthy periods of stress or anxiety.
- ***Acute fatigue*** results from short-term sleep loss or from short periods of substantial physical or mental work.
- ***Chronic fatigue syndrome*** is the continuous, severe state of tiredness that is not relieved by rest.



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# ***Fatigue Management in the Workplace***

## **Important Definitions;**

- ***Circadian Rhythm*** - A bodily rhythm that is cyclic and recurs every 24 hours. It increases alertness and performance during the day and drives us to sleep at night.
- ***Shift Work*** - An organization of work where workers succeed each other at the same workplace while performing similar operations at different times of the day thus allowing longer hours of operation than feasible for a single worker.
- ***Sleep Hygiene*** - Appropriate conditions needed so that a person is able to obtain adequate and restful sleep.



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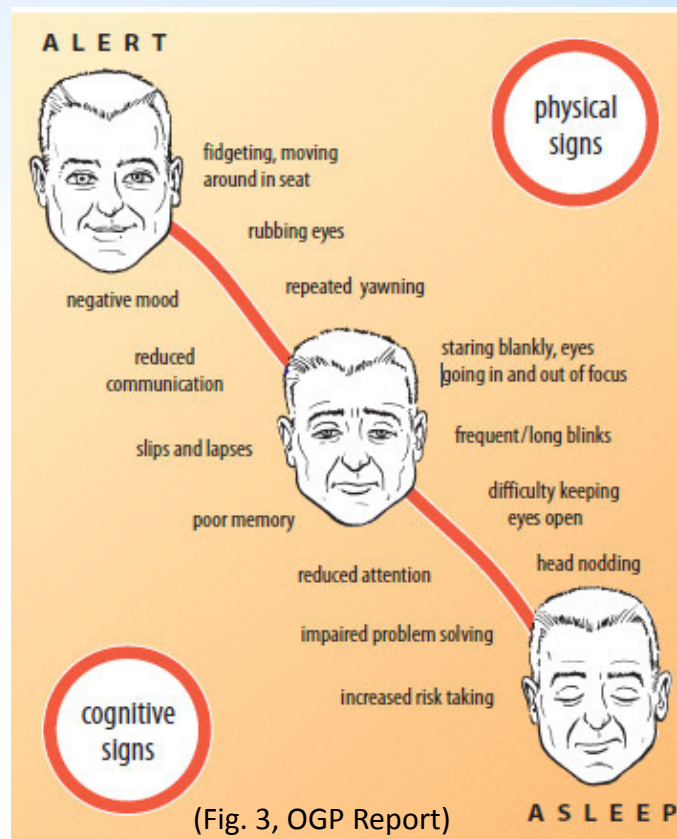


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## Signs and Symptoms of Fatigue ....



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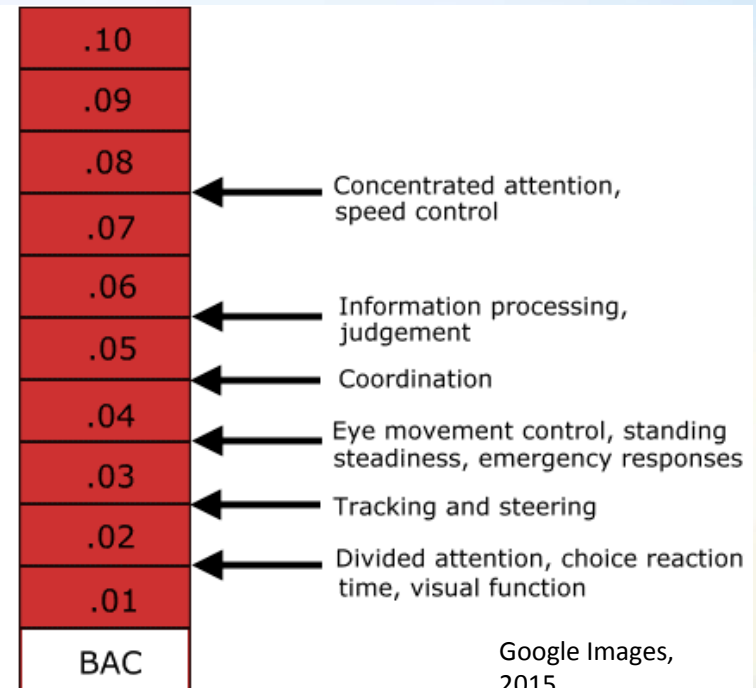
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## Fatigue Research

- WorkSafeBC reports research that has shown the number of hours awake can be similar to blood alcohol levels.
- **17 hours** awake is equivalent to a blood alcohol content of **0.05**
- **21 hours** awake is equivalent to a blood alcohol content of **0.08**
- **24-25 hours** awake is equivalent to a blood alcohol content of **0.10**





# ***Fatigue Management in the Workplace***

## **Effects of Fatigue in the Workplace**

- Reduced decision making ability
- Reduced ability to do complex planning
- Reduced communication skills
- Reduced productivity / performance
- Reduced attention and alertness
- Reduced reaction time - both in speed and thought
- Increased medical costs
- Increased incident rate



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## **Effects of Fatigue in the Workplace**

- Failure to respond to changes in surroundings or information provided
- Unable to stay awake
- Increased tendency for risk-taking
- Increased errors in judgement
- Increased sick time, absenteeism, rate of turnover



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# ***Fatigue Management in the Workplace***

## **Identifying Fatigue;**

- Self-assessments
- Voluntary disclosure
- Behavioral Observation (*Co-worker, Supervisor, Manager*)
- Incident Investigation
- Fatigue Risk Assessment



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# Sample Fatigue Risk Assessment

An employee, in conjunction with a supervisor must complete this form. All information in this form is treated as confidential.

1. EMPLOYEE AND LINE MANAGER / SUPERVISOR INFORMATION				
Employee Name				
Date / Time	<input type="checkbox"/> Day Work	<input type="checkbox"/> Shift Work	<input type="checkbox"/> Overtime / Call out	
Supervisor				

2. IN THE LAST 48 HOURS.....			
No of hrs slept?		Quality of sleep? good / bad	
Average Hours: Hours worked (over the last 7 days)		Consecutive days worked: (over the last 7 days)	

3. QUESTIONS – (this section to be asked by Supervisor)		
Do you feel impaired?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<p>If Yes, can you explain why you feel impaired and suggest a reason? Fatigue, stress, injury, illness, and the effects of alcohol or drugs (prescribed and not prescribed) could be contributing factors.</p>		

<p>What tasks and activities are you expected to perform today? Do you feel fit to safely and effectively perform these duties?</p> <p>Take into consideration any higher risk tasks and activities that could possibly affect your safety or that of another person.</p>
---

<p>What tasks and activities have been agreed for you to perform today? Do you feel fit for work to safely perform these duties?</p>
--

4. SYMPTOMS OF FATIGUE
------------------------

Fatigue can cause a vast range of physical, mental, and emotional symptoms. One or more of the following symptoms could impair a person's ability to drive and/or work safely.

**Supervisors:** If you recognise any of these symptoms in an employee, discuss the situation with the employee and consultatively determine a course of action that will reduce the risk of an accident or incident and attempt to eliminate a potentially unsafe situation.

- Chronic tiredness or sleepiness; desire to sleep
- Micro sleeps (a brief nap that lasts for approximately four to five seconds, but may last up to 60 seconds)
- Headache
- Dizziness
- Appetite loss
- Blurry vision



# Fatigue Management in the Workplace

## Individual Defences;

### Sleep Hygiene

Rest is the most important control measure for managing fatigue. Rest and relaxation techniques are specific to the individual.

- Go to bed and get up at the same time every day.
- 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.
- Turn off the call/text ringers.
- Ask family members to be respectful if one person is sleeping.
- Make the room as dark and quiet as possible.
- Most people sleep better when the room is cool. Consider using an air conditioner or fan in the summer months.



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Nutrition

## Examples of high GI foods

White or whole grain bread	White or quick brown rice	Baked or mashed potato
Cornflakes or Coco Pops	French fries	Cakes
Doughnuts	Rice crackers	Breakfast bars
Muffins	Puffed corn or rice cakes	Pancakes

## Examples of low GI foods

Oranges or orange juice	Low-fat yogurt	Noodles or pasta
Baked beans	Lentils	Apples or apple juice
Fruit bread	Chocolate	Grapes
All bran, porridge, muesli	Peanuts or cashews	Oat bran or grain bread

## Examples of intermediate GI foods

Banana	Sugar	Sweet corn
Basmati rice	Pineapple	Soft drinks
Rye or high-fibre bread	Weetabix	Cookies
Full-fat ice cream	Flavoured milk drinks	Cranberry juice

## Examples of low-fat protein foods

Low-fat dairy products	Cooked and canned fish	Protein shakes
Hard boiled eggs	Lean chicken, beef, or lamb	Lentils



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## **Exercise**

- Improved sleep
- Increased energy levels
- Reduced muscle tension
- Reduced stress
- Improved muscle tone and strength
- Increased aerobic fitness (*heart and lungs*)
- Reduced body fat
- Improved bone density
- Increased stamina
- Improved circulation with better digestion and body functioning



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## **Hydration**

- Increases alertness
- Lubricates joints
- Regulates Temperature
- Protects Spinal Cord and other sensitive tissues
- Aids with weight loss
- Helps to regulate bodily functions
- Limit your daily intake of **Caffeine**
- Drink at least 2L or 8 glasses of water per day



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## **Level of caffeine in common substances**

### **Coffee (250 ml)**

- Instant 65-100 mg
- Drip 115-175 mg
- Brewed 80-135 mg
- Espresso 100 mg

### **Caffeinated beverages (250 ml)**

- Coke 50 mg
- Jolt 100 mg
- Red Bull 80 mg

### **Tea (250 ml)**

- Green tea 8-30 mg
- Normal 50-70 mg

### **Most chocolate bars**

- Approximately 20-40 mg

### **NoDoz, 1 regular strength tablet**

- 100 mg

**Caffeine**



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## **Other Risk Factors;**

- Alcohol
- Smoking
- Personal Illnesses
- Over the counter drugs



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# ***Fatigue Management in the Workplace***

## **Company Defences;**

### **Scheduling**

- Ensure employees have adequate time away from the workplace each day
- Comply with Labor Laws and Regulations in Newfoundland & Labrador
- Consider specific job roles and tasks when planning employees schedules
- Communicate contract expectations with employees
- Interpret Fatigue Risk Assessments when planning
- Staffing levels, experience, expertise, and opportunities for job rotation



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# ***Fatigue Management in the Workplace***

## **Education**

- Provide employees with an education program on Fatigue Management
- Educate employees on recognizing and properly reporting fatigue in the workplace
- Allow employees to participate in Fatigue Risk Assessments
- Offer supplementary information on nutrition, exercise, illnesses, injury prevention, etc



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## **Work Environment**

- Temperature control
- Appropriate sleeping conditions where applicable
- Suitable PPE
- Ergonomic Assessments



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**Questions?**



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