



**Balfour Beatty**  
Rail

# Fatigue

**What you need to know**



# BE FIT FOR WORK

## WHAT IS FATIGUE?

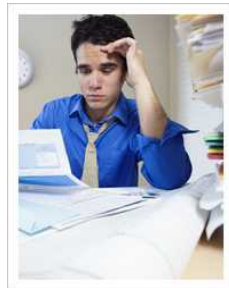
**ORR Definition: “a state of perceived weariness that can result from prolonged working, heavy workload, insufficient rest and inadequate sleep”**

A fatigued person will be less alert, less able to process information, will take longer to react and make decisions and will be less interested in working compared to a person who is not fatigued. They may tolerate risks they would normally find unacceptable.

Fatigue increases the likelihood of errors and adversely affects performance, especially in tasks requiring:

Vigilance and monitoring

- Decision making
- Awareness
- Fast reaction time
- Tracking ability
- Memory



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## FACTS

- Being awake for around 17 hours has been found to produce impairment on a range of tasks equivalent to that associated with a blood alcohol concentration above the drink driving limit for most of Europe.
- Poor performance due to fatigue is particularly apparent with repetitive tasks taking longer than 30 minutes to complete
- Almost 20% of all accidents on major roads are sleep related
- Fatigue cannot be prevented by personality, intellect, skill, motivation or knowledge.
- Being awake for 24 hours produces impairment worse than that associated with a blood alcohol concentration above the legal limit for driving on UK's roads.

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### WHAT CAN CAUSE FATIGUE?

- The incidence of **health problems** such as sleep, gastrointestinal and cardiovascular disorders has been estimated to be greatest in shift workers rather than day workers.
- There is mounting evidence that working long weekly hours over long periods increases the **risk of accidents and incidents**.
- Loss of sleep – “acute”, for example having 5 hours sleep instead of the usual 8; or “cumulative” having 7 hours sleep instead of the usual 8 over each of several days.
- Poor Quality sleep – lots of interruptions.
- Having to work at a “low point” in the day e.g. early hours of the morning; mid to late afternoon and after a meal.
- Long working hours, particularly if these are as long as 14 to 15 hours.
- Poorly-designed shift patterns.
- Inadequate breaks during the working day.

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## WHAT ARE THE EFFECTS OF FATIGUE?

- Find it hard to:
  - concentrate
  - make clear decisions
  - take in and act on information
- Have more frequent lapses of attention or memory
- React more slow
- Make more errors
- Occasionally fall asleep at work
- Have little motivation or interest in work
- Be irritable



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## RECOGNISING FATIGUE

Likely level of Fatigue	Signs /Symptoms
<b>Early warning signs.</b> These should prompt people to look out for more conclusive evidence of fatigue.	<ul style="list-style-type: none"><li>• Fidgeting</li><li>• Rubbing the Eyes</li></ul>
<b>Signs of moderate fatigue.</b> Performance is being affected, Take these seriously - it is not necessary to fall asleep to make a critical error.	<ul style="list-style-type: none"><li>• Frequent yawning</li><li>• Staring blankly</li><li>• Frequent blinking</li></ul>
<b>Signs of severe fatigue.</b> Liable to brief uncontrolled 'micro-sleeps', risk of errors very high.	<ul style="list-style-type: none"><li>• Nodding head</li><li>• Difficulty keeping eyes open and focussed</li><li>• Long Blinks</li></ul>

\*\* Individuals are not good at assessing how fatigued they are.

## WHO IS MOST AT RISK?

Type of Work	Likely significant risks from fatigue
No shift work, no significant overtime, no Safety Critical Work	Low
Some shift work and / or significant overtime but no Safety Critical Work	Medium to High
Safety Critical Work	High

## **WHAT DOES THE LAW SAY?**

- **Health and Safety at Work etc Act 1974 (HSWA)**

Sections 2(1) and 3(1) place general duties on employers to reduce risk so far as is reasonably, including risk from staff fatigue.

Section 7 requires employees to co-operate with their employer by for instance ensuring they are adequately rested to do their work safely, and by reporting any concerns about fatigue promptly to their employer.

- **Management of Health and Safety at Work Regulations 1999 (MHSWR)**

Employers to assess risks arising from their operations, including risk from staff fatigue, and to put in place effective arrangements for planning, organisation, control, monitoring and review of these controls.

## **WHAT MUST YOUR EMPLOYER DO?**

- **Review roster patterns to identify areas where fatigue is likely.**
- **“Reality Check” Consult with the workforce to find out how they are affected.**
- **Collaborate to amend shift patterns to reduce the likelihood of fatigue.**
- **Assess, record, monitor and control when staff work outside of the planned shift patterns.**
- **Inform and educate the workforce**



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## HOW IS FATIGUE MANAGED?

**The office of Rail Regulation has published a comprehensive guide called 'Managing Rail Staff' which recommends a 9 step approach.**

The 9-Step Approach:

- 1) Identify Safety critical Workers
- 2) Setting Standards and design working patterns
- 3) Limiting Exceedance
- 4) Consulting with your workforce
- 5) Recording the arrangements
- 6) Providing information to workers
- 7) Monitoring
- 8) Take action when workers are fatigued
- 9) Reviewing the arrangements



## **BE FIT FOR WORK**

### **WHAT AFFECTS FATIGUE?**

- Start Times of shifts
- Breaks when on site
- Nature of work being undertaken
- Length of shift patterns at night
- Changes between day and night shifts
- Number of consecutive shifts at night

### **WHAT CAN YOU DO?**

- Get the required amount of sleep
- Tell your manager if you have any sleep conditions
- Consider future shifts when planning off duty lives
- Declare if you have a second job
- Participate in any fatigue related training events
- Avoid excessive use of stimulants and sedatives
- Ask for hotel accommodation if required

## **KNOWING YOUR LIMIT?**

- Recognise when you have not had enough rest.
- 14 hours Door to Door.
- Maximum 12 hour shift.
- Maximum consecutive shifts (13 NR 12 LU).
- 12 hours between booking off and booking on shift.
- Inform your line manager.
- Risk Assessment
- Find alternative work
- Contact HGCC on 02082977400 if you require a hotel to be arranged
- Report any concerns that you have (Close Call)

**For further information: HSE Website: <http://www.hse.gov.uk/> for hints and tips for shift workers or the BUPA Website: <http://www.bupa.co.uk>**

**You can also contact your local SHEQ advisor or BBR Occupational Health Responsible Person.**

**ZEROHARM**  
MAKE SAFETY PERSONAL

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