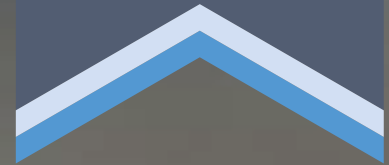




'Spotlight on...' learning toolkits aim to raise awareness and drive change. The toolkits provide resources including guidance, case studies and best practice examples from across the industry and beyond to help the construction industry to address these issues and raise their standards in these important areas of concern.



**CONSIDERATE  
CONSTRUCTORS  
SCHEME**



# Spotlight on...

## worker fatigue

**BEST PRACTICE  
HUB**



## Spotlight on...

worker fatigue

**‘Spotlight on... worker fatigue’** aims to raise awareness of the health and safety risks associated with fatigue and provides the industry with guidance for addressing this issue.

Worker fatigue is an often overlooked workplace hazard in the construction industry. This is despite the fact that fatigue is a serious health and safety risk in construction, as it has the potential to severely impact an operative’s physical and cognitive capacities. The inability to respond and react promptly can be detrimental on a construction site, leading to errors and near misses, injuries and even fatalities. It is important then that the construction industry recognises the dangers associated with fatigue, its causes and how to prevent it.

### WHAT IS WORKER FATIGUE?

Fatigue is more than simply feeling tired, it is an overwhelming and ongoing state of mental and/or physical exhaustion. Construction workers are at a much greater risk of fatigue due to the nature of the working conditions, shift patterns and types of labour involved in the industry. Therefore, it is imperative that fatigue is addressed like any other workplace hazard through risk assessment and management.

The following statistics identify the severity of fatigue in the UK:

- Sleep deprivation costs the UK around **£40 billion** every year.
- More than **one third** of the UK gets less than six hours sleep every night.
- If everyone in the UK had between 6-7 hours sleep every night, this could add around **£24 billion** to the economy.
- In the UK, **1 in 5** visits to the GP are related to tiredness and fatigue.

- Fatigue costs the UK between **£115 and £240 million** per year in workplace accidents alone.
- UK employees work the **longest hours** in Europe, but are **significantly less** productive.
- **Over 50%** of UK employees have experienced burnout at work.
- Almost **two thirds** of UK employees claim tiredness affects their productivity at work.
- **86%** of UK employees feel unable to speak with their line manager about how tiredness impacts their performance at work.

More specifically, worker fatigue is a huge concern for the construction industry:

- The UK construction industry has one of the **highest rates** of psychosocial health problems, including fatigue and burnout.
- The UK construction industry **ranks third** for the highest average hours worked per week.
- Over **80%** of construction workers in the UK are not getting enough sleep.
- Only **14%** of construction workers in the UK work fewer than 40 hours a week.
- **44%** of construction workers in the UK travel around 2-3 hours a day to work and back.
- Long working hours have been identified as the **most significant** contributor to poor mental health within the UK construction industry.

## Spotlight on...

### worker fatigue

#### WORKER FATIGUE IN CONSTRUCTION

The inherent nature of the construction industry can increase the risk of fatigue. Common causes of fatigue in construction include long working hours, consecutive shifts, irregular working schedules, night work, early starts, demanding workloads, challenging working conditions and inadequate breaks. These factors can prove draining and can intensify feelings of fatigue and exhaustion.

Construction workers operate in an environment where they are challenged both mentally and physically. Construction work entails the regular use of heavy equipment and machinery as well as hazards which can be physically demanding, while the repetitive and monotonous nature of certain tasks requires focus and concentration which can also exacerbate fatigue. Such labour is often performed in harsh working conditions, including extreme temperatures, excessive noise and vibration and poor visibility, all of which can provoke fatigue.

Operating whilst fatigued is a serious health and safety risk and can be as dangerous as working under the influence of drugs and alcohol. In fact, being awake for around 17 hours stimulates impairment equivalent to exceeding the drink drive limit. Such impairment includes slower reactions, lapses in judgement, reduced concentration and coordination, an underestimation of risk and diminished cognitive ability. In an industry fraught with safety hazards and high risk activities, it is vital that operatives are mentally and physically alert at all times.

Fatigue is not only detrimental to the health and safety of the workforce, but to the prosperity of business. Fatigue can lead to poor work performance, reduced productivity, slower progress and delays. Tackling fatigue not only improves health and safety, but is financially beneficial, by reducing absenteeism and presenteeism, decreasing lost-time incidents, reducing the risk of accidents, and improving workplace efficiency.

#### THE CONSIDERATE CONSTRUCTORS SCHEME

The Scheme's Code of Considerate Practice states that all registered sites, companies and suppliers are expected to provide a supportive and caring working environment. The Checklist used by the Scheme Monitors asks the following questions: 'Does the site encourage attitudes and behaviours that enhance safety performance?', 'Does the site care for the health and wellbeing of the workforce?' and 'How is the health and wellbeing of the workforce assessed and addressed?'

To support this learning toolkit, the Scheme surveyed over 1000 construction industry professionals to gauge attitudes on the topic of worker fatigue. Key findings include:

- **75%** of respondents think that worker fatigue is a problem within the construction industry.
- **73%** think that it is an overlooked hazard and **65%** do not think the industry is doing enough to prevent it.
- **49%** work on average between 40-50 hours per week, whilst **37%** work more than 50.
- When asked what the main causes of worker fatigue were: **34%** said working hours, **20%** said workload whilst on shift, and **18%** said early starts.
- **54%** sometimes feel overburdened at work, whilst **30%** frequently do.
- Only **5%** have a thorough understanding of the regulations surrounding fatigue and **50%** claimed to have little understanding.
- **18%** do not feel that they could speak to site management if they were feeling fatigued.
- When asked what the industry could do to prevent worker fatigue: **the majority** of respondents suggested a restriction on working hours.

**Considerate Constructors Scheme Chief Executive, Amanda Long said:**

Our workforce is at the centre of the success of our industry and, as the industry survey clearly shows, we must do more to improve standards to tackle the issue of worker fatigue.

The Scheme is at the centre of raising awareness and spreading best practice across the entire industry and I would encourage everyone to read the learning toolkit and utilise the resources available within it.

Thank you to all organisations which have contributed so far, and we look forward to continuing to grow the Best Practice Hub's suite of resources on this critical subject to help to continue to raise standards across our industry.



It is evident that there is still more work to do if the industry is to tackle the issue of worker fatigue. The following sections showcase examples of best practice and in-depth case studies, while the resources section brings together organisations that are addressing the issue of fatigue in the construction industry.

**Spotlight on...**  
worker fatigue

## Law and legislation

Worker fatigue is often included within the larger topic of workplace health and safety. The following legislation establishes policies and regulations which have been put in place to prevent worker fatigue.

### THE HEALTH AND SAFETY AT WORK ACT (1974)

Under this Act, employers have a legal duty to protect the health, safety and welfare of employees and those that may be affected by their work. Sections 2(1) and 3(1) of the Act place general duties on employers to reduce health and safety risks, including risks posed by fatigue, so far as reasonably practicable.

Similarly, under this legislation, employees are expected to cooperate with their employer by ensuring they are rested enough to perform their work safely and reporting any concerns about fatigue to their employer.

For government guidance on the act, visit <https://www.legislation.gov.uk/ukpga/1974/37>

consider fatigue as a risk factor in their business like any other health and safety risk. Whether the business involves major hazards or not, employers are required to set up appropriate systems to control potential causes of fatigue, including working hours, shift patterns, overtime, annual leave and rest periods.

However, it is important for employers to remember that compliance with these regulations is not in itself sufficient to control risks posed by fatigue. The employer must ensure they are aware of the hours an employee works and takes appropriate action to prevent any risks to workers.

For government guidance on the act, visit <http://www.legislation.gov.uk/ukxi/1998/1833/contents/made>

### THE HEALTH AND SAFETY (CONSULTATION WITH EMPLOYEES) REGULATIONS (1996)

Under these regulations, employers are required to consult with their workforce on health and safety issues, including fatigue. Consultation involves employers providing employees with information and listening to their opinions before making a decision. If a decision regarding changes to working hours or shift patterns is raised, the employer must consult with the employee before implementing any new changes.

For government guidance on the act, visit <http://www.legislation.gov.uk/ukxi/1996/1513/contents/made>

### THE MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS (1999)

These regulations are the main instrument for risk assessments and risk management to control health and safety hazards, including fatigue. Under these regulations, employers are required to make an assessment of the risks posed by fatigue and introduce effective measures to remove or control such risks where possible. This includes monitoring, reviewing and assessing the number of hours worked and how these hours are scheduled.

For government guidance on the act, visit <http://www.legislation.gov.uk/ukxi/1999/3242/contents/made>

### THE WORKING TIME REGULATIONS (1998)

These regulations establish the minimum legal requirements on how to organise working time. Employers are required to satisfy the provisions and

## External resources

There are a number of resources available to help the construction industry address the issue of worker fatigue.

### ORGANISATIONS

**Active Training Team** are an industry-leading provider of health and safety workshops and training days. They have released a podcast in which specialist academics and professionals discuss the risks of worker fatigue.

<https://activetrainingteam.co.uk/podcasts/view/6>

**Brake** is a road safety charity which aims to stop road deaths and injuries from occurring. The charity raises awareness of the dangers of driving while fatigued and has developed a number of initiatives to prevent the onset of driver fatigue.

<http://www.brake.org.uk/>

**Campaign Against Living Miserably (CALM)** is a charity which strives to improve mental health. The charity provides frontline services, including a free helpline and webchat to help people to discuss a range of problems, including work-related issues such as stress and burnout.

<https://www.thecalmzone.net/>

**Fatigue and Risk Index (FRI)** is an online resource developed by the Health and Safety Executive (HSE) to help organisations to assess the risks of fatigue in the workplace.

<http://www.hse.gov.uk/research/rrhtm/rr446.htm>

**Health and Safety Executive (HSE)** is a UK government agency responsible for the encouragement, enforcement and regulation of occupational health and safety. HSE raises awareness of fatigue and provides a number of resources to help organisations to manage fatigue in the workplace.

<https://www.hse.gov.uk/>

**Health and Safety Laboratory (HSL)** is part of the Health and Safety Executive (HSE) and educates organisations about the impact and causes of fatigue and how risks posed by fatigue can be effectively managed.

<https://www.hsl.gov.uk/>

**Institute of Occupational Safety and Health (IOSH)** is a leading health and safety organisation which is committed to ensuring that working practices are safe. The organisation provides guidance on how working hours should be designed, managed and monitored to make sure employees do not become fatigued.

<https://www.iosh.com/shiftworkhealth>

**International Labour Organization (ILO)** is a **United Nations** agency which brings together governments, employers, and workers to set standards and promote safe working practices. The organisation also raises awareness of the issue of worker fatigue and the importance of appropriate working hours.

<https://www.ilo.org/global/lang-en/index.htm>





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**National Health Service (NHS)** is the UK's overarching healthcare service which offers guidance for tackling a number of physical and mental health issues. The NHS delivers advice for tackling fatigue and getting good quality sleep through providing self-help tips and support.

<https://www.nhs.uk/>

**Public Health England** is an executive agency of the **Department of Health and Social Care**. The organisation raises awareness of the dangers of sleep deprivation and the importance of preventing fatigue in the workplace.

<https://www.gov.uk/government/organisations/public-health-england>

**SafeTea Break** is an online resource developed by **3M**. The toolkit aims to help organisations educate their workforce about a number of health and safety risks, including worker fatigue.

<https://safetynetwork.3m.com/blog/safetea/>

**Sleep and Recovery Toolkit** is an online resource launched by **Business in the Community (BITC)** in partnership with **Public Health England**. The toolkit offers organisations advice and support for addressing fatigue and sleep deprivation.

<https://wellbeing.bitc.org.uk/all-resources/toolkits/sleep-and-recovery-toolkit>

**The Healthy Employee** is an organisation which aims to help employers to create safe, healthy and productive workplaces through providing a range of resources including toolkits, toolbox talks and workshops. The organisation is focusing on the issue of fatigue in its 'Becoming a Fatigue Free Project' initiative.

<https://www.thehealthyemployee.co.uk/>

**THINK!** is a campaign launched by the **Department of Transport** which provides road safety information to help reduce the number of people killed or injured on roads in the UK. The campaign also raises awareness

of the risks of driving while fatigued and the legal implications this can have.

<https://www.think.gov.uk/>

**Trade Union Congress (TUC)** is a federation of trade unions across England and Wales. The federation developed a **paper** on the issue of worker fatigue which aims to raise awareness of fatigue, its causes and how it can be prevented.

[https://www.tuc.org.uk/sites/default/files/Fatigue%20July%202016%20pdf.docx\\_0.pdf](https://www.tuc.org.uk/sites/default/files/Fatigue%20July%202016%20pdf.docx_0.pdf)

**Unite the Union** is a British and Irish trade union which aims to protect worker's rights. The union raises awareness of the dangers of long working hours and the impact this can have on an employee's health, safety and wellbeing.

<https://unitetheunion.org/>

### WHAT IS THE INDUSTRY DOING?

**CONSTRUCT** is a member of **Build UK** and brings together common aims within the construction industry. CONSTRUCT released a paper raising awareness of the issue of fatigue in construction and provides advice for how to prevent fatigue in the workplace.

<https://www.construct.org.uk/>

**Constructing Better Health (CBH)** is a not-for-profit scheme dedicated to improving occupational health and safety in the construction industry. The scheme offers guidance on how to spot the signs of fatigue and how to manage working hours to prevent workers becoming exhausted.

<https://www.cbhscheme.com/>

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**Construction Industry Helpline** is a service managed by the Lighthouse Club. It provides a 24/7 safety net for all construction workers and their families in the UK and Ireland. The service offers advice and support for a range of issues, including occupational health and wellbeing, financial problems and mental health.

<https://www.constructionindustryhelpline.com/about-us.html>

**Construction Industry Helpline App** is a free, confidential service aimed at providing essential information and guidance on wellbeing topics such as stress, anxiety, depression, anger and suicidal thoughts. The helpline app has been upgraded with 'Sleepstation', an NHS approved service aimed at improving support with insomnia and poor sleep health. The confidential and clinically proven support is being provided completely free of charge by the charity in response to callers reporting difficulties with sleeping due to emotional, financial or other physical wellbeing issues.

<https://www.constructionindustryhelpline.com/app.html>

**Fatigue360** is a fatigue management system developed by **Munnely Support Services**. The system aims to help the construction industry to monitor shift patterns and working hours and to mitigate the risks posed by worker fatigue.

<http://www.fatigue360.co.uk/>

**Health in Construction Leadership Group** is an organisation which aims to improve health and safety in the construction industry. The group raises awareness of the issue of fatigue and the impact exhaustion can have on a worker's physical and mental wellbeing.

<https://www.healthinconstruction.co.uk/>

**Network Rail Safety Central** is an online resource created by Network Rail to promote health and safety. The resources include guidance and support on a

range of health and safety issues in the rail industry, including worker fatigue.

<https://safety.networkrail.co.uk/>

**Office of Rail and Road (ORR)** is an independent regulator which evaluates the rail industry's health and safety performance. The organisation offers guidance and information about worker fatigue, its causes and how fatigue should be managed.

<https://orr.gov.uk/>

**Rail Safety and Standards Board (RSSB)** is an organisation which aims to keep railways safe. The organisation provides guidance and resources to help employers prevent worker fatigue and manage the risks posed by sleep deprivation.

<https://www.rssb.co.uk/>

**Stop. Make a Change.** is a campaign which aims to build a safer and healthier construction industry. The campaign provides support and resources for tackling fatigue and promotes the importance of protecting health and wellbeing.

<https://www.stopmakeachange.co.uk/>

**Transport for London (TfL)** is a government body responsible for the transport system in Greater London. The organisation raises awareness about the dangers of shift working and the health and safety risks associated with working while fatigued.

<https://tfl.gov.uk/>



## Examples of best practice

The Scheme aims to improve the image of construction through sharing examples of best practice with the industry. Below are a number of examples of best practice that have been witnessed by our Scheme Monitors on their visits, or that have been submitted directly to the Hub by registered sites, companies, and suppliers.

- A guest speaker was invited to the site to help the team learn meditation techniques as one study found that after eight weeks of mindfulness training, people suffering workplace stress had significantly decreased stress levels and improvement in general health. The same improvements were sustained for four months after the training.
- The site introduced a “Look After Yourself” board on all sites which included tips to avoid fatigue, the company Fatigue Management Policy and a visual aid depicting the warning signs of fatigue
- A gripping hand tool was implemented on site that is designed for lifting, carrying and moving large sheet and board materials easily with just one hand. The tool preserves the construction workers’ back and helps them to carry bulky materials more safely.
- In the site office, elevation desks were procured to ensure that it is possible for employees to work standing up for periods of the day. The benefits of this include increased well being, flexibility for employees to adjust desk height individually and to work standing up.
- The site used the SmartCap fatigue management system to manage the performance and safety of personnel. The SmartCap includes a Lifeband which fits onto headgear and includes five hi-tech sensors that can read electrical brain activity. The Lifeband gives an assessment of the overall state of wakefulness of the driver/operator.







To view over fifty Best Practice Hub entries relating to the ‘Spotlight on... worker fatigue’ learning toolkit visit: <https://ccsbestpractice.org.uk/tag/worker-fatigue/>

## Case Studies

The Scheme collaborated with a variety of contractors which are leading the way in tackling worker fatigue to produce case studies outlining their approaches to this issue.

 <p><b>A-one+</b> Integrated Highway Services A CH2M   HOKME   OOSTEUK COMPANY</p>	<p><b>A-one+</b> describes how it has devised a fatigue management plan, policies and preventative measures to prevent fatigue and to safeguard the health and wellbeing of all operatives on site.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/A-One-1.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/A-One-1.pdf</a></p>
 <p><b>BOUYGUES</b></p>	<p><b>Bouygues</b> explains how they have incorporated worker fatigue into their overall health and safety initiative and the measures that they have implemented to reduce fatigue within their workforce.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Bouygues.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Bouygues.pdf</a></p>
 <p><b>Carnell</b></p>	<p><b>Carnell Group</b> explains how it is raising awareness of worker fatigue and the impact sleep deprivation can have on an individual's health, safety and welfare.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Carnell-Group.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Carnell-Group.pdf</a></p>
 <p><b>FARRANS</b></p>	<p><b>Farrans</b> discusses how it is taking responsibility for protecting the health and safety of its employees by assessing, monitoring and reviewing workloads and working hours.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Farrans.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Farrans.pdf</a></p>
 <p><b>GYM ON SITE</b></p>	<p><b>Gym On Site</b> explain how their stretch and flex programmes to the construction industry generate benefits both for the company and its workforce.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2021/06/Farrans-DNA-APPROVED.pdf">ccsbestpractice.org.uk/wp-content/uploads/2021/06/Farrans-DNA-APPROVED.pdf</a></p>

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	<p><b>J. Murphy &amp; Sons Ltd</b> outlines its commitment to managing and monitoring workloads and shift patterns to prevent the onset of fatigue amongst the workforce.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Murphy.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Murphy.pdf</a></p>
	<p><b>Morgan Sindall</b> reveals how it has monitored fatigue within its workforce and used the results to update its fatigue management strategies.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Morgan-Sindall.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Morgan-Sindall.pdf</a></p>
	<p><b>Munnelly Support Services</b> has developed <b>Fatigue360</b>, a fatigue management system which aims to help employers monitor and mitigate the onset and impact of worker fatigue.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Munnelly.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Munnelly.pdf</a></p>
	<p><b>Northern Gas Networks</b> explain the initiatives that they have developed to support its workforce so they are able to work safely during times of high demand.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Northern-Gas-Networks.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Northern-Gas-Networks.pdf</a></p>
	<p><b>Robertson</b> presents its comprehensive fatigue management procedure which aims to prevent and manage the health and safety risks associated with worker fatigue.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Robertson.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/Robertson.pdf</a></p>
	<p><b>VolkerRail</b> details how it is addressing the issue of worker fatigue through implementing a number of effective policies, regulations, initiatives and control measures.</p> <p><a href="https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/VolkerWessels.pdf">https://ccsbestpractice.org.uk/wp-content/uploads/2022/11/VolkerWessels.pdf</a></p>

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## What can you do?

Despite the health and safety risks associated with fatigue, it is often an underestimated workplace hazard in construction.

It is crucial that the construction industry takes responsibility for managing, controlling and most importantly, preventing worker fatigue.

### FATIGUE RISK MANAGEMENT SYSTEM (FRMS)

Site management should implement a Fatigue Risk Management System (FRMS) to control fatigue. Having a formal procedure in place to manage fatigue is important considering construction work involves high risk activities, including hazardous work, working at height and operating heavy machinery and equipment. It is important to manage fatigue like any other workplace hazard through risk assessment and risk management.

Using a FRMS draws together protective and preventative measures to manage the risks posed by fatigue and to prevent fatigue-related errors from developing into more serious accidents and injuries.

The stages of a FRMS should include:

- Assess the level of fatigue risk associated with shift patterns by collecting information on employee's working hours and working schedules. This involves conducting a risk assessment that takes into account the hazards associated with fatigue.
- Identify factors which may contribute to fatigue and establish how likely worker fatigue is and the potential risks of working while fatigued.
- Control measures should be implemented to reduce fatigue, such controls might include shorter shifts, fewer consecutive shifts, additional breaks and reduced workloads.

- Regularly review and assess the adequacy of control measures in reducing fatigue and to establish how effective these measures are in preventing fatigue.

### MONITOR WORKLOADS

#### Anonymous response to the Scheme survey:



Project completion overtakes the welfare of the workforce and contractors working on projects.



One of the most effective ways to minimise fatigue is to ensure that operatives are not in the position of working to the point of exhaustion. The management of workloads is important in making sure that workers do not become overburdened or fatigued.

To prevent the onset of fatigue, site management should:

- Avoid overloading operatives with too much work or place unrealistic expectations on the completion of tasks and deadlines. Stringent deadlines can compel operatives to work overtime or to overburden themselves with work, reducing productivity and increasing the risk of errors, accidents and injuries.
- Schedule appropriate workloads according to the duration and intensity of the shift. When work is particularly demanding, consider reducing the duration of the shift to prevent fatigue.

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- Vary each operative's tasks and activities to avoid extended periods of physically demanding, highly focused or repetitive work.
- Avoid scheduling demanding, dangerous or monotonous tasks during the night, early morning or towards the end of long shifts. These times of the day are when people feel the most tired.
- Provide working environments that have good lighting and visibility. Uncomfortable temperatures and excessive noise and vibration can increase the risk of fatigue.
- Provide operatives with equipment which reduces physical strain and manual labour, such as exoskeletons and electric wheelbarrows.

In addition to managing workloads, site management should recognise the impact of commuting to work and back. Often, operatives will travel a number of hours to work and back, provoking the onset of fatigue. Site management should monitor their employee's commutes and adjust working hours and the intensity of workloads if an operative has a long commute.

## DRIVER FATIGUE

### Anonymous response to the Scheme survey:



I believe the main cause of fatigue is the travelling to and from jobs. Roads and public transport are now so busy people are getting up earlier and earlier just to get to work on time.



Driver fatigue is a serious issue which results in thousands of severe injuries, deaths and accidents on UK roads. In fact, research has found that 1 in 6 crashes resulting in death or injury are fatigue-related. Many construction workers are at risk of

being too exhausted to drive. It is important that site management ensures operatives are safe when they are behind the wheel.

To mitigate driver fatigue, site management should:

- Ensure operatives get enough sleep before driving and encourage workers to take a break at least every 2 hours while driving.
- Make sure operatives are aware of the early warning signs and symptoms of driver fatigue.
- Adjust working hours and workloads to take into account the amount of time spent commuting to and from work.
- Educate workers on the importance of getting sufficient rest before getting behind the wheel.
- Be mindful of operatives who routinely travel long distances as they will be susceptible to fatigue.

## CONTROL WORKING HOURS

### Anonymous response to the Scheme survey:



I have worked night shifts in a previous contract which led to some of my decision making being affected and meaning I was not the best I could be due to worker fatigue. Not every person can do irregular shift patterns. I don't believe this is considered in the workplace.



Site management should be mindful of the impact certain working hours can have on operatives. This includes early starts, night work, overtime, long working hours and consecutive shifts. These shift patterns can increase the risk of fatigue and limit the time an operative has to physically and mentally recover.



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To avoid provoking worker fatigue, site management should:

- Avoid scheduling shifts that do not allow for at least 12 hours rest and try to ensure that shift patterns provide a continuous 7-8 hours sleep in each 24 hours, and at least 50 hours in every 7 days.
- Avoid scheduling shifts which are longer than 8 hours. Long working hours can provoke fatigue and reduce the time available for leisure, sleep and relaxation. In fact, research has found that working for 12 hours increases the risk of injury by 25-30%.
- Avoid planning early starts and night work where possible as these shifts give operatives considerably less time to sleep and recover, causing fatigue.
- If it is unavoidable to adjust shift patterns, monitor and record the hours each operative has worked to prevent fatigue and to ensure no operative is working excessive hours.
- If overtime is necessary, plan for this in advance so operatives can schedule in time for rest, recovery and leisure.

## BREAKS AND REST PERIODS

Site management should allow operatives to have regular breaks. Frequent, short breaks can reduce the risk of fatigue, improve productivity and performance, and enhance concentration, all of which can significantly reduce the risk of errors, accidents and injuries.

To improve productivity in the workplace, site management should:

- Consider allowing additional breaks if there are signs of fatigue amongst the workforce. Cognitively and physically demanding tasks will require more frequent breaks than less demanding activities.

- Provide adequate welfare facilities for operatives to rest and relax in before going back to work.
- Research has found that around 25% of workers are risking their health by refusing to take a break and one third of workers skip lunch to cope with their workloads. Encourage operatives to take their full break entitlement to prevent the onset of fatigue.

## SIGNS OF FATIGUE

Site management has a duty to assess the physical and cognitive signs of fatigue amongst the workforce. If site management believes an operative is displaying signs of fatigue, it is important to address this problem quickly. This is because operatives are often unaware that they are fatigued. Common symptoms of fatigue include falling asleep, long blinks, difficulty keeping eyes open, frequent yawning and staring blankly.

To monitor the signs of fatigue, site management could:

- Be aware of the signs and symptoms of fatigue and understand what action to take if you think an operative is suffering from fatigue.
- Supply operatives with wearable technologies such as wristbands and helmets, examples include Readibands and SmartCaps. These technologies have biometric sensors which can detect changes in physical movement, including facial, eye and bodily movements. This can help monitor signs of exhaustion and be used to warn operatives if they are reaching high levels of fatigue.
- Encourage operatives to download smartphone applications such as Sleep Cycle, which tracks sleeping patterns to help workers monitor their own fatigue levels.
- Install telematic systems in vehicles, plant and mobile machinery to detect signs of fatigue, including erratic steering and braking.



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- If you notice a worker is tired, do not allow the operative to commence work or continue working if they are fatigued to such an extent that their condition may prejudice their safety or the safety of others.

- Educate operatives about the importance of sleep, rest and recovery, and the dangers of sleep deprivation. Ensure operatives are aware that insufficient sleep and being awake for long periods of time can significantly increase the risk of errors and accidents on site.

## EDUCATE THE WORKFORCE

### Anonymous response to the Scheme survey:



This issue is rarely discussed, there should be regular discussions on it.



Educating the workforce is essential for managing and mitigating fatigue. To prevent workers becoming exhausted, site management should teach operatives about the health and safety risks associated with fatigue.

To educate operatives about fatigue, site management could:

- Display posters and leaflets on site and in welfare facilities to raise awareness about worker fatigue.
- Educate operatives about the signs and symptoms associated with exhaustion to help workers identify when they might be too fatigued to work safely.
- Host toolbox talks to educate operatives about the health and safety risks associated with fatigue. There needs to be recognition that both operatives and site management have a responsibility in managing fatigue.
- Discuss the issue of worker fatigue during site briefings and site inductions to remind operatives about the dangers of working while fatigued before construction commences.

## WORKPLACE CULTURE

### Anonymous response to the Scheme survey:



We are a 'mans' industry and men seldom say that they are tired as it would be seen as being a sign of weakness. We all need to look at ourselves and our mates around us and be honest.

It's a hard subject to bring up to your peers and to accept you may be suffering from fatigue.



Construction is a stereotypically masculine industry, imposing values of toughness and independence. This masculine culture can make operatives reluctant to admit they are fatigued and can deter them from voicing concerns about their health and wellbeing. It is important to ensure operatives feel supported by fostering a culture in which workers feel encouraged to discuss both personal and professional issues without fear of judgement or reprimand.

To promote a positive workplace culture, site management should:

- Regularly consult with the workforce about shift patterns and workloads to ensure no operative is feeling overburdened. If an operative raises an issue, consider amending their working hours and workloads to reduce the risk of fatigue.

## Spotlight on...

### worker fatigue

- Encourage operatives to feedback their opinions on workloads and working schedules. If concerns are raised, assess the situation and if appropriate, put in place control measures such as additional breaks, job rotation, replacement personnel or extra supervision.
- Implement a confidential reporting procedure for operatives to voice concerns about fatigue. This might encourage workers to discuss any worries they might have about their workload or shift patterns.
- Support operatives in accessing advice, support and resources for managing fatigue and exhaustion.

However, it is important to remember that it is the responsibility of both the employer and employee in managing fatigue. Operatives have a duty to communicate with site management if they start displaying signs of fatigue and raise concerns if they are feeling more tired than usual, particularly if there have been changes in their personal life, shift patterns or workload.

## HEALTH AND WELLBEING

Although it is clear that work-related factors play a significant role in contributing to exhaustion, feelings of fatigue can be exacerbated by an individual's lifestyle choices. To reduce the risk of fatigue, site management should:

- Encourage operatives to live a healthy lifestyle by promoting exercise, sleep, eating a healthy diet, avoiding stimulants such as caffeine, drugs and alcohol, and staying hydrated. This will allow operatives to make informed decisions about their lifestyle choices.
- Invite a health professional on site to carry out health assessments, to educate operatives about the health risks associated with fatigue and the symptoms of exhaustion to look out for.

- Host warm-up exercises before construction work commences to boost energy levels. Exercise and physical activity improves fitness, health and wellbeing and reduces stress.
- Encourage operatives to seek medical advice if they are concerned about their health and wellbeing or if signs of fatigue persist.
- Provide operatives with guidance and advice for getting good quality sleep. Sleep plays an important role in managing fatigue, and sleep deficit can have a profound impact on an individual's ability to work safely and productively.
- Signpost operatives to resources that will help them make lifestyle choices which improve their health and wellbeing.

Remember that site management does not have the sole responsibility in managing fatigue. Operatives should take responsibility for their own health and wellbeing to ensure they are fit for work.

This learning resource has shown that the construction industry is making considerable progress towards tackling the issue of worker fatigue. However, the industry must continue to raise awareness about the health and safety risks associated with fatigue to safeguard the health and wellbeing of everyone working in construction.

Alongside the information above, it is also advised to use the resources provided in the 'External resources' section of the learning resource which identifies valuable information from other organisations.

The Scheme will continue to update this as new case studies and examples of best practice emerge. If you would like to share how you are addressing the issue of worker fatigue, please contact the Best Practice Hub team by emailing: **[enquiries@ccsbestpractice.org.uk](mailto:enquiries@ccsbestpractice.org.uk)**.