

INTRODUCTION TO SIGNALLER TRAINING
DAY 7 - WORKING SAFELY - COMPONENT 6 - FATIGUE REDUCTION

FATIGUE REDUCTION	
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<https://safety.networkrail.co.uk/fatigue-improvement-programme/>

All content from STAY ALERT STAY SAFE PDF

- EFFECTS OF FATIGUE
- RESULT OF BEING ALERT
- WHAT IS FATIGUE
 - CAUSES
 - SIGNS
- STANDARD
 - RISK MANAGEMENT
- TIPS TO AVOID - Add the Fatigue Fact sheets pdf
- WHAT TO DO IF YOU ARE

Fatigue Reduction

Stay alert. Stay Safe.

Being alert means you can do your job safely and efficiently. This microlearning will look at what fatigue is, what its effects are, what causes it and signs to look out for. You'll find out about the Fatigue Risk Management Standard and how it's used to plan your workload and help managers assess fatigue. Lastly, discover some advice on a variety of ways to avoid fatigue and reduced alertness.

Compare the different consequences of being fatigued and being alert.

Fatigue

When you're fatigued, it's harder to:

- Concentrate
- Make decisions
- Maintain vigilance
- Control emotion
- Recognise risks
- Coordinate hand-eye movements
- Communicate effectively

Alertness

By being well rested and alert for work, you:

- Reduce error rates
- React to danger more quickly
- Reduce the likelihood of accidents and injuries

Nearly a fifth of accidents on major roads are sleep related. Research shows being awake for more than 17 hours has the same effect as being over the limit for drink driving in most EU countries. Department for Transport's THINK! campaign

Fatigue is... "A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity)." International Civil Aviation Organization (ICAO)

Fatigue is... "a decline in mental and/or physical performance that results from prolonged exertion, sleep loss and/or disruption of the internal clock." Health and Safety Executive

Fatigue may cause or contribute to dangerous errors. A signal may be misread or overlooked, an important instruction or message may be misunderstood and staff will be more likely to make an error." Office of Road and Rail

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What causes fatigue and reduced alertness?

- Being awake for a long time
- Time of day (alertness is at its lowest 2–6am, but it dips again 1–3pm)
- Disruption of your circadian rhythm (your body clock)
- Poor sleep habits/quality
- Workload (physical or mental)
- Medical conditions

Feeling tired can be fixed with a quality night's sleep, but getting your fatigue level under control normally involves a mix of sleep, work and lifestyle changes.

What are the signs to look out for? Expand each heading to find out.

Early warning signs

- Rubbing eyes
- Fidgeting

Signs of moderate fatigue

- Yawning
- Frequent blinking
- Staring blankly

Signs of severe fatigue

- Difficulty keeping eyes open
- Long blinks

Signs of stage 1 sleep

- Head nodding
- Microsleeps (sleep episodes that can last as little as a few seconds)

Emotional

- Quiet
- Withdrawn
- Lacking in energy
- Irritable or grumpy

Mental

- Poor decision making
- Increased risk taking
- Poor judgement

- Loss of concentration
- Lapse in attention
- Difficulty communicating
- Confusion

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The fatigue standard

Being more alert at work means fewer accidents and incidents, as well as improved staff health, morale and performance. So Network Rail introduced an updated Fatigue Risk Management Standard in December 2019 to improve how we plan work, reducing the likelihood of fatigue. The standard makes it clear that managing fatigue is a joint responsibility.

Network Rail (and suppliers) responsibility

Plan work so that individuals have regular breaks during shifts, and enough time to recover between shifts.

Monitor actual working hours for trends.

Empower staff to raise their hand if they don't feel alert enough to work safely.

Individual responsibility

Make the most of opportunities to rest; get plenty of sleep so you're well rested and fit for duty.

Speak out if you're concerned about your (or a colleague's) fatigue, especially where it may affect safety.

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The fatigue assessment process

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If you're ever worried you might not be alert enough to work safely, speak to your manager (or the person in charge). Filling in a fatigue assessment might help you both decide what kind of tasks you can safely take on. You can complete a fatigue assessment at any time, but before leaving home for your shift is best. Each route or function will have their own templated fatigue assessment form.

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Following the assessment your manager might decide to complete a fatigue management plan with you. This document will detail what controls or mitigations the two of you agree to put in place to keep you and your colleagues safe.

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Another time you might need to fill in a fatigue assessment or fatigue management plan is if you exceed one of the fatigue triggers detailed in the updated standard. However, if work is being planned to minimise the risk of fatigue, these trigger points should rarely be exceeded.

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A fatigue management plan should also be created when someone returns to work after an extended absence and also when working hours are changing as part of reasonable adjustments. If an occupational health referral has highlighted a fatigue-related condition, which could affect the health and/or wellbeing of a member of staff, a plan is needed. It's also required for someone is on call (as defined in NR/L2/OHS/003/05).

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Fatigue Risk Management Triggers *[think how to present]*

Everyone

- Working more than 60 hours in a rolling seven-day period
- Working more than 72 hours in a rolling seven-day period
- Working more than 12 hours in one shift or period of duty
- Working more than 13 consecutive turns of duty in 14 rolling days
- More than 14 hours door-to-door
- Less than 12 hours break between booking off from a shift/period of duty and booking on for the next shift/period of duty

Rostered individuals

- A Fatigue Risk Index (FRI) fatigue score of more than 35 for daytime shifts or 45 during night-time shifts
- An FRI risk score of more than 1.6

Advice to stay alert and avoid fatigue *think about how to present these - add graphics?*

Making sure you are getting enough sleep, eating a healthy diet and staying hydrated will reduce fatigue and maximise your alertness.

Prioritise sleep

Our brains are highly active during sleep, performing tasks that keep us alert and high-performing the following day; most adults need between 6 and 9 hours sleep every night (according to the NHS).

Napping is a great tool you can use to boost your alertness. The key is to keep the nap short (20 mins) so you don't feel groggy when you wake up; this delay between waking up from sleep and feeling wide awake is called sleep inertia.

Safety First!

Before taking a nap at work, you need to talk to your manager or the person in charge to make sure they are comfortable with you napping, and know when and where you're planning to nap

Get light right

When it's dark, your body produces a hormone called melatonin that helps you sleep; this means we can use light as a tool to improve alertness and manage our circadian rhythm (the body clock).

When you need to stay awake, keep your environment as bright as possible; get as much daylight as you can and keep the lights bright if it's night-time. If your role allows it (and it's safe to do so), setting up a light therapy lamp where you work, or in your break area, may help improve alertness.

Reducing your light exposure in some situations might be helpful too. For example, wearing sunglasses driving home the morning after a night shift (as long as you feel alert enough to do so), might make it easier to fall asleep when you get to bed.

Stay hydrated

Try to drink water before you feel thirsty; thirst is a sign that you are already dehydrated. Some surprising signs and symptoms of dehydration are reduced vigilance, increased tension or anxiety, headaches, and fatigue. It's recommended that men drink 2 litres of water a day, and women drink 1.6 litres. Some of this fluid can be found in the food you eat, like soup, milk on cereal and fruit.

Limit caffeine

One thing to be aware of is while a small amount of caffeine can boost your alertness, it also makes it harder to get to sleep. The NHS recommend you avoid it within 4 hours of bedtime.

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Eat a healthy diet

Eat a balanced and varied diet that includes at least 5 portions of a variety of fruit and vegetables every day. The NHS have lots of useful advice about healthy eating on their website.

Move more

The NHS recommend 19-64 year olds do at least 150 minutes moderate intensity activity, or 75 minutes of high intensity activity, a week.

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What should I do if I feel fatigued, or I'm concerned it's a possibility?

The first thing you need to do is talk to your manager. Being open and honest with them will help them to support you in managing your fatigue effectively.

If they feel it's needed, or if you ask them to, they'll work with you to complete a fatigue assessment. If you work to a roster or on call, your roster clerk, section admin or planner may also run an FRI (Fatigue Risk Index) calculation.

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By talking about your levels of alertness (and reasons for it), the Fatigue Assessment and FRI score will help you both decide whether a fatigue management plan is needed. These tools will also be used if you hit or exceed one of the triggers in the updated Fatigue Risk Management standard. Discussing your personal situation is key to you and your manager creating a fatigue management plan that's suited to your needs.

If you're ever worried that your fatigue concerns are not being taken seriously, please get in touch with your local HR representative.

One last thing to remember: you might spot symptoms of fatigue in others that they're not aware of. If you're worried about your colleagues' alertness levels, look out for them – suggest they talk to their manager or supervisor immediately. If it's putting anyone's safety at risk, you need to raise a Close Call or report it. Find out more about these processes in other parts of today's learning.

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