Wake up to fatigue

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What is fatigue?

Fatigue is a state of impairment that can include physical and/or mental elements associated with:

- Lower alertness
- Reduced performance
- Impaired decision making
Risk factors for fatigue

- Inadequate sleep
- Interrupted sleep cycle
- Circadian rhythm disruption
Causes of fatigue

- Work-related causes
- Lifestyle
- Medical issues
Why is fatigue an issue at work?

- Errors
- Reactions
- Risk
- Reduced performance
- Impaired decision making
- Lower alertness
Relevance to mining industry

- Driving
- Operation of vehicles and machinery
- Working around heavy vehicles
- Safety critical work environments
- Shift workers

COSTS
- Loss of production
- Productivity
- Plant and equipment
- Workers compensation
Fatigue and stimulants

- Irritability
- Anxiety and agitation
- Excitability
- Tremors
- Restlessness
- Raised heart rate and blood pressure
- Insomnia
- Withdrawal symptoms
Several distinct areas of the brain are active when driving and many of these same areas show reduced activity during sleepiness.

**Figure 1a-b**
Illustrations of neural areas active during driving tasks (yellow) and neural areas that show decreased activation during sleep deprivation (light blue). Note that the actual neural activity is much more diffuse than as it is seen in the illustration.
Did you know?

- Fatigue is one of the big three killers on NSW roads
- Fatigue-related crashes are twice as likely to be fatal
- In 2012, more people in NSW died in fatigue-related crashes than drink driving crashes

Image and statistics from NSW Centre for Road Safety
A driver who has been awake for 17 hours has a driving ability similar to driving with a BAC of 0.05.

After being awake for 21 hours, driving ability is similar to driving with a BAC of 0.15.
When are fatigue crashes likely to occur?

During normal sleep times or when driver has been deprived of sleep

Peak time: in the early morning

Smaller peak: mid-afternoon

A driver is 4 times more likely to have a fatal fatigue crash if driving between 10pm and dawn
Who is most at risk of a fatigue crash?

- Young males
- People with medical conditions
- Rural drivers
- Commercial drivers
Warning signs of fatigue when driving

- Yawning?
- Sore eyes
- Drifting lanes?
Recognise the early warning signs of fatigue and act

Before driving:
- Get plenty of sleep / eat sensibly
- Work out rest and overnight stops
- Avoid alcohol or medications that cause drowsiness

When driving:
- Take regular breaks, use rest stops
- Share the driving / avoid driving at high risk times
- Never drive for more than 10 hours in a single day
- Avoid travelling long distances after a full day’s work
Summary

- Fatigue is a state of mental and/or physical exhaustion which reduces a person’s ability to perform work safely and effectively.
- Both work and non-work related factors can also cause fatigue.
- Fatigue becomes an issue when workers at risk of fatigue perform safety critical tasks as part of their role.
- Fatigue is one of the big three killers on NSW roads.
- NSW Department of Trade and Investment has resources to help fatigue in the workplace.
References

• State of Queensland Department of Natural Resources and Mines. QGN 16 Guidance note for fatigue risk management. 2013.