



SHIFT WORK & DRIVER FATIGUE



Who we are

Roadsafe Taranaki is a partnership managed by the South Taranaki District Council on behalf of the New Plymouth, Stratford and South Taranaki district councils to promote road safety throughout the Taranaki region. It is the longest running 'shared service' between the three Taranaki district councils.

Why we're here

Road trauma in Taranaki is a significant issue for a small region within New Zealand. Every death or injury on the road has devastating impacts on families and the small communities we live in.

Roadsafe Taranaki has a focus on education to help change behaviour and attitudes through a range of activities and events around the region. The key objective is to reduce deaths and serious injuries and to improve the safety of all road users who travel on Taranaki roads. Education is just one tool in this objective and partnerships are crucial to achieving success in any road safety programme.

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**NOT DRUNK.
NOT SPEEDING.
JUST TIRED.**

Shiftworkers are **six times** more likely to be involved in a **fatigue-related** road crash than other workers.

These risks can be managed.

This brochure has been produced by Roadsafes Taranaki to help you work and drive more safely.

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DRIVER FATIGUE

**High risk times for fatigue-related road crashes:
Night time/early morning 10.00pm to 6.00am
Afternoon 1.00pm to 3.00pm**

Fatigue in shiftworkers can severely impair judgement and can affect anyone. It's particularly dangerous because one of the symptoms is a decreased ability to judge our own level of tiredness.

Fatigue-related crashes at these times of the day coincide with dips in the body's circadian rhythms, which programme us to feel sleepy at night when we would normally be asleep (and to a lesser extent in the afternoon hours).

Fatigue is a more common factor in road traffic crashes than drugs or alcohol. Globally it's estimated that driving while fatigued is the cause of 20% of all road traffic fatalities.

CAUSES OF FATIGUE

Insufficient sleep can be caused by:

- **Short Term** (less than 5 hours sleep in the last 24 hours) or **Long Term** (less than 12 hours sleep in the last 48 hours or less than 50 hours in the last week)
- Starting work very early in the morning
- Poor or inconsistent eating patterns
- Physical or mental demands
- Poor general health and fitness



The risk of fatigue increases when performing repetitive unstimulating tasks or work that requires high levels of concentration over long periods. Driving on long, straight roads at a constant speed has a similar risk.

SIGNS OF FATIGUE

Eyes

- Could be strained, heavy, sore, dim, fuzzy and you may blink more often or rub your eyes
- Close eyes longer than normal when blinking and have difficulty keeping your eyes open
- Have trouble focusing

Body

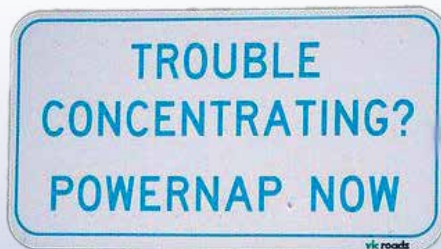
- Constant yawning, trouble keeping your head up, droning or humming in your ears
- Aches and pains, cramp, need to stretch arms and/or legs
- Delayed reactions, missing gear changes

Driving

- Drifting over centreline or edge of seal
- Tailgating, braking too late, wandering across lane
- Unintentionally increasing or decreasing speed
- Missing road signs or exits

Thoughts

- Feeling restless and irritable
- Daydreaming, can't remember last few kilometres
- Misreading signs, slowed reactions
- Having wandering, disconnected thoughts



Remember – Once fatigue has set in, the only answer is sleep and you should stop for a short nap or seek assistance to get home.

SHIFTWORK ISN'T EASY

Taranaki is home to an increasing number of industries where shiftwork and long working hours are the norm including oil and gas, farming, dairy and food processing.

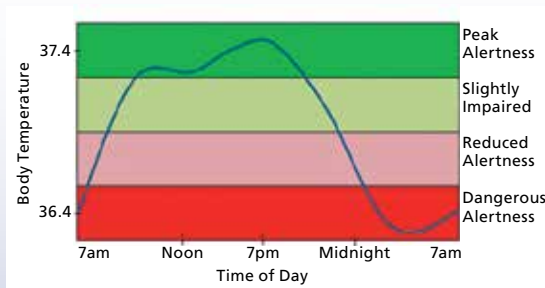
In the 2013 Census 41% of our workforce reported working in excess of 40 hours per week, with 11% working 50-60 hours per week and another 11% working in excess of 60 hours.

If you are a shiftworker you'll be well aware of the impacts on your sleep schedule, your social life, family life and your general lifestyle.

It is important to manage your sleep, work and leisure patterns well, to avoid putting yourself and others at risk.

WORKING SAFELY

Our body temperature is programmed to drop at night to make us sleepy and to rise during the day to help us feel alert. We are least alert and most sleepy in the pre-dawn hours around 5am.



You can't totally reverse your body clock and night shift work is difficult because you are working against your biological make-up.

However, if you're a regular night shift worker, you can partially adjust your body clock to reduce the impact of working when your body says 'sleep'.

Seven to eight hours continuous sleep is generally recognised as an average and normal need. Less than this over a long period may result in sleep deprivation and can greatly increase the dangers of a workplace-related accident or a road crash.

MANAGING YOUR WORK TIME

There are three main types of shift work:

- Fast shift rotations (with changes every few days or less)
- Slow shift rotations (changes fixed for more than a few days)
- Permanent night shift

Whichever shift you work, there are ways to help your body adjust. Here are some tips.

FAST SHIFT ROTATIONS

Try to maintain a daytime setting for your body clock. Ways to do this can be:

- Spend time in the daylight each side of night shift
- Avoid a heavy meal during the night
- Have a nap at home before your night shift

SLOW SHIFT ROTATIONS

Try to adjust your body clock as rapidly as possible to a setting for being awake at night:

- Go to bed as soon as you get home from night shift
- Have an afternoon nap if you didn't get enough sleep in the morning
- Eat three regular meals, with 'lunch' during your night shift

You can't totally fool your body clock (day sleep may be shorter, lighter and more fragmented than night sleep). So, after a few nights you could be in 'sleep debt' and very tired – just when you have to drive home in the morning.

After your last night shift try to adjust your body clock to being awake in the daytime. Ways to do this are:

- Sleep for only two to three hours on the first morning after night shift and then get a good long sleep that night and the following nights
- Get plenty of exposure to daylight/sunlight on your days off

PERMANENT NIGHT SHIFT

If you're a permanent night worker or are returning to night shift after your days off, use the tips above from 'Slow Shift Rotation'.

On your days off, try to remain as 'nocturnal' as possible. This can be difficult and not suit your family or social life, so try the following:

- Get up late (eg, after midday) and go to bed late at night (eg, after midnight)
- Avoid morning sunlight (stay indoors as much as possible or wear sunglasses)
- Try to stay with your night shift meal schedule as much as possible

The only thing that can combat fatigue, is sleep.



MANAGING YOUR SLEEP TIME

If you work long hours or are a night shiftworker, there are some things you can do to get better quality sleep:

- Try to have a regular time for going to bed
- Make sure your bedroom is dark (try heavier curtains) and at a comfortable temperature (<18°C)
- Make sure you have quietness (turn the volume on your phone down and wear earplugs if necessary)
- Avoid caffeine for five hours before going to bed
- Avoid alcohol before bed (it makes you sleep lighter and wake up more often)
- Try a light snack and/or a glass of warm milk before bedtime
- Seek the co-operation of your family, neighbours and friends in minimising disturbances to your sleep routine



SLEEP ENVIRONMENT

It's very important to create the right atmosphere and environment when you go to bed, so you fall asleep quickly and remain asleep:

- Give yourself time to wind-down from normal activities. Avoid bright lights or sunlight before heading to bed
- Make your bed as comfortable as possible
- Ensure those that live with you know you're sleeping and how important a quality sleep is – put a sign on the door
- Remove landline and mobile phones from your room
- If you can't sleep, read for a while rather than tossing and turning. Don't watch television
- If something on your mind is keeping you awake write it down



THE IMPORTANCE OF HEALTHY EATING

Shift work can affect your eating and exercise habits and a poor diet can, in turn affect your sleep quality and alertness.

Follow these tips to maintain healthy eating habits during your shifts.

Plan ahead – stock up on healthy snack foods you enjoy so if you are hungry but too tired to cook you are more likely to make healthy food choices. Try raw vegetables, hummus, fruit, nuts and dried fruits. If you need carbohydrates, choose complex slow burning carbs such as wholegrain breads, cereals and brown rice.

Prepare meals before your shift – cook extra portions and freeze for the days you don't have time to cook. Don't stop for takeaways on the way home.

Take your own meals and snacks to work

– you're more likely to eat healthily if you pack your own meals rather than eating foods from restaurants, takeaways or vending machines.

Eat small meals or snacks – it can be harder to sleep after eating a large meal and can also make you feel tired on the job.

Eat regularly – find meal times that suit your own sleep patterns and are as close to normal daily routines as possible. Avoid eating meals very late at night.

Don't eat at your desk or on the job – take proper breaks and if you work at a desk, get some exercise.

Avoid coffee before bed – caffeine affects the body for several hours and should be avoided for at least four to five hours before sleep.

Drink water – your body can mistake thirst for hunger and if you are dehydrated you are more likely to eat unhealthy snacks. Drink plenty of water and avoid bottled drinks with added sugar or caffeine.

Exercise will help you sleep better – try to get some moderate exercise or take a walk outdoors after your shift and before sleeping.

For more information check out the dietary advice on www.sleepfoundation.org



DRIVING HOME AFTER SHIFT WORK

AFTER THE EVENING SHIFT

- Keep your car interior at a cool temperature (this will not make you more alert or keep you awake; however warm temperatures may increase sleepiness)
- Stay hydrated
- Don't stop for an alcoholic drink
- If you feel really tired and drowsy, look for an alternative way to get home, or consider having a short nap of 10 to 20 minutes before driving
- A caffeine drink may help your alertness in the short term; however it can result in difficulty getting to sleep or staying asleep



AFTER THE NIGHT SHIFT



This is a very risky time to be driving. Your body may be at its low point in alertness, and you may be 'sleep deprived' from working nights and possibly a long shift. If you are feeling drowsy you may drift in and out of sleep occasionally without knowing it (a 'micro sleep'). It's a brief nap that lasts only a few seconds, but it can be fatal when driving.

- Consider having a short nap of 10-20 minutes before you drive home
- Alternatively, some light exercise in fresh air may help to refresh you
- If you are in good health and have had the recommended 7 to 9 hours of sleep in the last 24 hours the safety risk is already well managed. If you're drinking enough water to be well hydrated, some caffeine-containing drinks can be a good way of overcoming mild fatigue for a short time.



WHAT DOESN'T WORK

These common myths will not mitigate or prevent fatigue:

- Washing your face
- Cold air on your face
- Listening to the radio or turning the radio up
- Chewing gum
- Stretching your arms or legs



Willpower will not keep you awake.

GETTING SUPPORT

Improving road safety is the responsibility of every New Zealander, and if you are to avoid driving when you are really too tired to be on the road, you need the help and co-operation of others.

Talk with your workplace safety representative, supervisor, manager or employer about the company's shift work requirements and **what may be done to improve safety at work and on the road to and from work**. It's in everyone's best interests.

Employers have a duty of care to minimise risks of injury in the workplace, and should be concerned that their employees do not become road crash statistics while driving to and from work. **As employees, you also have a duty of care to take reasonable care to protect yourself and others in the workplace.**

Seek co-operation from your family. They must understand your need to get adequate sleep and to plan family activities around your work and sleep times.

ROAD CRASHES

If you are first on the scene of a crash, your actions could help save the lives of the people involved in the crash and make it safer for other drivers coming upon the crash scene.

- Park your car in a safe spot, away from the crash area. Leave plenty of space for emergency vehicles to come and go, and for emergency workers to work in
- Switch on your car's hazard lights
- If possible, post other people or warning triangles on all approaches to the crash site to warn oncoming drivers. The people or triangles should be about 200 metres from the crash site to give approaching drivers time to slow down
- If people are injured, dial 111 as soon as possible
- Following a crash, some airbags may not be deployed. If you need to enter a crashed vehicle, don't place yourself between any un-deployed airbag and the vehicle's occupants. Un-deployed airbags can deploy with force some minutes after a crash and could injure both the rescuer and the occupants
- If it is safe to do so, turn off the ignition of all vehicles involved in the crash

REPORTING A CRASH

- When anyone is injured, you must notify the Police as soon as possible, but within 24 hours
- When no one is injured, you must give your name and address and the name and address of the owner of the vehicle you are driving to the owner or driver of the other vehicle which has been damaged, and to the owner of any property that has been damaged
- If you can't find the property owner, you must notify the Police as soon as possible and not more than 48 hours after the crash
- If you have a current insurance policy, tell your insurance company as soon as possible after the crash

ACCIDENTS INVOLVING ANIMALS

- If you injure an animal (for example, a dog, cat or cow) you must tell the owner of the animal if possible
- If you can't find the owner, you must contact the local SPCA inspector or the Police as soon as possible but not later than 48 hours after the accident

DISCLAIMER

Information in this booklet has been obtained from the New Zealand Road Code and the NZTA website www.nzta.govt.nz.

Roadsafe Taranaki has endeavoured to ensure the material in this booklet is technically accurate and reflects legal requirements at the date of publication. Please note the information in this booklet does not override governing legislation and Roadsafe Taranaki does not accept liability for any consequences arising from the use of this booklet.

If you are unsure whether the content is correct please refer to the latest Road Code or contact the New Zealand Transport Agency (NZTA).



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