

# DRIVING: YOUR VISION WARRANT OF FITNESS

Statistics show that one driver in five has a vision defect which may affect driving performance. Just as your car needs regular checks to ensure that it is functioning normally; your eyes need examining to ensure that your vision meets the LTNZ eyesight standards. Many drivers require the appropriate spectacles or contact lenses to meet the standard necessary for safe driving.

## Vision Skills for Safe Driving

Good vision is essential for road safety.

**Distance Vision:** If distance vision is poor, road signs and a variety of hazards (such as potholes, water or ice on the road surface) may not be seen until it is too late to react safely. Even the simplest of reactions take half a second or longer. Furthermore, stopping from 80 km/h takes four times the distance than from 40 km/h.

Poor distance vision and excessive speed increase the risk of making unreliable judgements, with potentially disastrous results. Your windscreen and spectacles should be clean and free of dust and scratches to ensure that you do not suffer dangerously reduced vision from the sun when it is low in the sky or from car headlights at night. Sunglass lenses should also be free of scratches, and of course, should not be used at night.

**Field of Vision:** The ability to see out “the corner of your eye” is particularly important for the early recognition of cross-traffic, pedestrians and animals at the roadside without looking away from the road ahead. To ensure safe driving, the LTNZ requires a minimum of 140° field of view for driving as a private motorist. Make the best use of your side and rear view mirrors, and keep them adjusted correctly.

**Depth Perception:** Passing other vehicles and changing lanes requires good judgement of distance, especially in busy traffic. A person with two eyes working together well has the most reliable depth perception.

### Accommodation (near vision focusing):

A driver needs to look from the road to the dashboard and back again quite frequently. This ability to change focus from far to near is called accommodation. Most people over the age of 45 have gradually increasing difficulty with near vision and may require spectacles to see clearly.

**Night Vision:** Safe night driving requires the ability to see in low and variable light conditions. It also requires an ability to recover quickly from the glare of oncoming headlights. Glare recovery is best in drivers under the age of 30, and night vision deteriorates after the age of 40. Older drivers can compensate to some extent for this reduction in the quality of night vision by driving more slowly. Eyes are much slower to adapt to night-time light levels following exposure to bright light. Being outdoors in the sun for only a few hours can slow the dark adaptation process so that normal night vision may not be reached for several hours after dark. This temporary loss of night vision can be avoided if reasonably dark sunglasses are worn during the day. NEVER WEAR SUNGLASSES AT

**NIGHT.** When driving at night, use the high beam setting for your headlights when it is safe to do so. Keep your vehicle lights clean, and you could talk to your local auto electrician about the best headlamp bulbs for better night vision.

**Colour Vision:** Colour plays an important part in road safety. Drivers must instantly recognise traffic lights, indicator signs, hazard warning lights and stop lights. People with colour vision defects may be slow reacting to red stop lights. Avoid the use of medium or dark blue sunglasses which can seriously interfere with some people's ability to distinguish traffic light colours.

**Older Drivers:** Should an older motorist give up driving?

Senior citizens must pay special attention to their driving ability. As long as physical health and vision permit, an older person should be able to continue driving to maintain the mobility which has come to be accepted as necessary for happiness and independence.

The law requires a person's vision to be tested every time a licence is renewed. However it is a driver's responsibility to ensure that their vision meets the LTNZ's eyesight standards at all times when driving. Studies show that for teenagers and those over the age of 50, there is a significant increase in the number of people who fail to meet the standards without corrective lenses.

The New Zealand Association of Optometrists recommends that all drivers have a regular eye examination.

**Recommendations for Safety:**

- Wear your spectacles or contact lenses if they have been prescribed for driving.
- See and be seen; consider using headlamps in all conditions (even daytime).
- Keep your windscreen, spectacles, sunglasses and lights clean.
- Frequently look in your rear vision mirrors and scan the verges of the road while driving.
- Avoid excessive speed.
- Reduce speed if conditions reduce visibility.
- Use your sun-visor on bright days, and consider having a pair of tinted spectacles made to your prescription.
- Never wear sunglasses for night driving.
- Don't drive under the influence of alcohol or drugs.
- Enjoy safe driving.

**Regular Eye Exams:** The NZ Association of Optometrists recommends a regular eye examination every 2 – 5 years for healthy adults. After age 65 more frequent exams are necessary to ensure early diagnosis and treatment of sight threatening conditions such as glaucoma and age-related macular degeneration (ARMD).