

AN AUTONEWS SAFETY PROJECT



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Early identification of eyesight problems in drivers

WHY EYESIGHT DETERIORATION IS OF CONCERN TO TRANSPORT MANAGERS

Good vision is critical to ensure good driving, especially for professional drivers.

Drivers who do not clearly see the road, road signs, other vehicles, stray animals and pedestrians, pose a significant risk to the company's property and operations.

In addition, drivers with poor eyesight become a safety hazard to themselves and others on the road.

Good eyesight includes all round vision, visual acuity which includes depth perception or the ability to judge space and distance between objects; as well as the ability to focus and see clearly with both eyes.

Daylight vision problems are usually

worse at night. Night vision is the ability to see beyond the reach of the headlights and the ability to cope with, and recover quickly from, the glare from the lights of oncoming vehicles.

"Some of the most common eye problems include dry eyes, which is often caused by medication, humidity or smoke," says Ntau Letebele, manager: safety promotions at the Department of Transport. "Bacteria, viruses and pollution could cause highly contagious pink eye.

"Cataracts are cloudy areas in the lens of the eye, caused by diabetes or exposure to ultra-violet light. These must be treated immediately as they can lead to blindness. Cataracts also increase glare from bright lights at night.

"Glaucoma is the result of too much pressure in the eyeball, which, if not

treated could damage the optical nerve and lead to blindness. Other visual deficiencies include nearsightedness, farsightedness or astigmatism. Research has shown even the simplest driving reactions can take up to 0,4 seconds.

"Drivers with poor distance vision will not be able to see road hazards before it is too late to react."

Yurisa Naidoo of Clear Vision Optometrists elaborates: "Any eye diseases or conditions that affect vision will in turn affect the ability to drive safely. Some of the leading causes of vision impairment in South Africa are cataracts, glaucoma, diabetic retinopathy and refractive errors.

"Cataracts occur in different stages. In its early stages it may be so small that it does not affect vision and sufferers may

Driver Health - Eyesight



be able to drive safely for many years. With time the cataract will worsen, resulting in dull and blurry vision.

Cataracts make it harder to see the road, street signs, other cars and pedestrians, especially in bright light and in the glare from headlights. Colours may look more faded and night vision may deteriorate. Some people also experience difficulty with judging distances and have double vision as the cataracts progress.

"Refractive errors are the most common eye disorders," explains Naidoo.

"Most people have a refractive error, in other words, there is an 'error' in the eye's ability to focus light correctly. The term 'refractive error' refers to myopia

(nearsightedness), hyperopia (farsightedness), astigmatism and presbyopia. Refractive errors are usually easily corrected with spectacles or contact lenses.

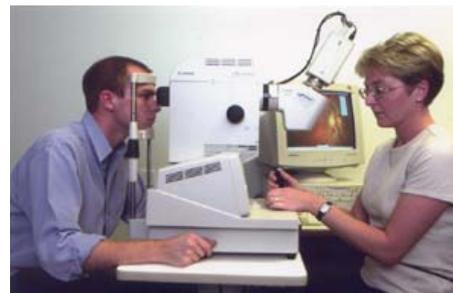
"Uncorrected refractive errors may make it more difficult to see traffic signs, pedestrians and other motorists, as the ability to see at a distance is affected. This problem may be worse at night."

A Dutch report that analysed results of 22 relevant studies, came to the conclusion the crash rate of motorists with an eyesight sharpness score of less than 0,5 in the Snellen test is 15% greater than those with a higher score.

The Snellen test is the rows of letters with decreasing size we have all seen in the optometrist's office. The study also found two disorders, sensitivity to blinding and poor Useful Field of View (UFOV) increase the crash rate by 58% and 470% respectively.

Many accidents are caused by driver negligence in taking the necessary precautions such as wearing spectacles or contact lenses prescribed for distance use; glare in the driver's eyes not prevented by sunglasses; or a dirty windscreen exacerbating the eyesight problem.

These accidents are extremely costly to the company in direct costs such as hospital, medical and funeral costs, damage to the vehicle and goods, damage to other property and associated



Eye tests are painless

legal costs and the increase in insurance premiums. In addition, the company faces indirect costs associated with having to cope with one less vehicle and driver and the impact on productivity.

CONSEQUENCES

An effort has been made by the Department of Transport to ensure driver vision is screened every five years.

"Whether this is adequate is debatable," says Trevor Skinner, special projects director of The SA Optometric Association (SAOA), "since the minimum standards for vision are very lenient and may offer some people a sense of false security when they 'scrape' through the test. The minimum pass rate of 6/12 vision is in effect only 50% of normal vision!"

As a result, relying on the eye test required for renewing a license every five years is not acceptable. A regular eyesight test, conducted at least every two years, will ensure the majority of common eyesight conditions are diagnosed and will ensure early detection of less common diseases. Even at a young age, a range of eyesight conditions may exist.

Glaucoma and cataracts, two of the most commonly known conditions, are known to affect vision seriously enough to



Regular tests are essential



Contact lenses are easy to insert

prevent safe road use if left unidentified and untreated.

If eyesight problems are identified early enough, they can be treated to stop or reduce the effects of long-term deterioration. Early intervention will go a long way to mitigate the need for expensive treatment later or the possibility of irreversible damage.

LABOUR LAW IMPLICATIONS

What are the labour law implications of eyesight testing before and during employment? And what can transport managers do when a driver is found to be suffering from deteriorating eyesight?

Dr Shahieda Adams from the University of Cape Town says the health requirements for professional driving is set out in the Road Traffic Act, which allows for regular evaluation of professional drivers before permits are renewed.

Other than the Road Traffic Act, the law is pretty silent on health requirements for driving. As a result, the South African Society of Occupational Medicine has brought out an exhaustive list of health requirements for driving. Whilst not law, these guidelines can assist in determining acceptable eye health standards for drivers and also fitness for driving.



"Pre-employment eye testing would be valid if the employer/risk manager stipulates good vision is a criterion for proper and safe execution of the job, particularly for drivers who transport people or hazardous goods where workers and public safety needs to be protected. This should also be substantiated by looking at best practices in similar workplaces," says Adams.

According to Jan Truter of the online labour advisory service, the Employment Equity Act of 1998 (EEA) prohibits unfair discrimination on a number of grounds, including disability. This is, however, qualified by a provision that says it is not

unfair to distinguish, exclude or prefer a person based on an inherent requirement of the job.

Good eyesight is obviously an inherent requirement for a job as a driver. The EEA also prohibits medical testing of an employee to some extent. It is debatable whether the testing of one's eyesight amounts to medical testing, but the EEA allows medical testing where legislation requires or permits the testing, or it is justifiable in the light of employment conditions and the inherent requirements of the job.

"Where the driver's eyesight is deteriorating to the extent it is affecting

Driver Health - Eyesight



Depth perception could save lives

his/her ability to drive, the issue must be managed in accordance with the Labour Relations Act, which recommends attempts are made for alternative placement and managing incapacity rather than simply firing workers. The issue of periodic vision screening should ideally form part of a programme agreed to by both worker and employer representatives.

"Of particular importance is the need to state upfront what the fitness criteria are and how workers who do not meet the fitness criteria would be dealt with. This needs to be done within the existing legal framework," says Adams.

"Workers compensation under the COID Act will be considered for those workers who sustain eye injuries during the course of their work or those who develop eye diseases as a result of an occupational exposure causing the disease," explains Adams.

Truter agrees: "Where sight deterioration or loss is work related, for example, as result of an injury while performing his or her duties, a claim can be lodged with the compensation commissioner in terms of the Compensation of for Occupational Injuries and Diseases Act of 1993 (COIDA), as amended. The employer, not the employee, has the obligation to report a work related injury and to ensure the necessary medical and other reporting forms are completed.

"Where an employee loses his or her job in circumstances where the cause for the deterioration or loss of sight is not work-related, the employee will be entitled to benefits from the Unemployment Insurance Fund (UIF)."

INSURANCE IMPLICATIONS

If a driver requires a glasses or contact lenses for driving, this will be noted on the driving license as an endorsement.

"In order for a driver to have a valid driver's license to operate a vehicle on the road, drivers must have eyesight of a certain standard. If a person does not have the required eyesight but can achieve this with the aid of glasses or

contact lenses, the driver's license will be endorsed accordingly.

"When a person's driver's license is endorsed in this way, they must always drive with their glasses or contact lenses.

"Failing to do so means they are not adhering to the conditions of their driver's license (and by implication with the law) and this could negate any vehicle insurance. It is vital to act within the law to ensure the vehicle insurance is valid and this includes always driving with the glasses or contact lenses prescribed by the driver's license," says Tracy Pitman, executive of The South African Insurance Association.

SAOA's Skinner says: "Insurance companies ought to consider reduced premiums for those professional drivers who have their eyes examined regularly and wear the correct prescription glasses as it is certain to bring about a saving due to lower accident rates."

DETECTED

Most eyesight problems are the result of ageing process and general health problems such as high blood pressure, diabetes, sinus, ear infections and overactive thyroid function.

Early signs of deteriorating eyesight include constant headaches, blurred vision, inability to focus and sore, burning or red eyes. Drivers should be educated to understand that these symptoms could indicate a serious eyesight problem and should immediately have such symptoms checked by a professional optometrist.

SOLUTIONS

Drivers should have regular check ups with a suitably qualified and registered optometrist, which will ensure that any eyesight problems are detected and treated early. This simple preventative measure could save the company thousands of rands in the long run.

Arrive Alive also suggests using vitamin supplements to maintain good vision. Transport managers may want to consider making daily vitamin supplements available to drivers as a long-term investment in the eyesight and



overall health of their drivers. Vitamin A is particularly good for maintaining good night vision, while vitamin B2 prevents burning eyes, sensitivity to bright light and cataracts. Selenium will also help prevent cataracts.

"Prescription sunglasses ought to be regarded as an essential item for professional drivers in South Africa to reduce eye strain (Asthenopia) and cataract development, due to the high glare and UV radiation," suggests Naidoo.

Drivers should also be trained to understand the importance of general eye care tips for safe driving and be motivated to apply these regularly and consistently.

The SA Optometric Association advises drivers to be wary of so-called night driving spectacles from the shelf. Drivers should also be careful to avoid staring into oncoming headlights and to look slightly left to the oncoming vehicle to speed up the eyes recovery from the glare. Drivers should also allow their eyes to adapt to lower light levels when moving from brightly lit areas to darker areas, such as tunnels.

"Tear supplements have been shown to benefit those with dry eyes," says Skinner. "Blinking and not staring also alleviates dry eye conditions, as does ensuring air-conditioners and heaters do not blow air at the face, but rather down to the floor."

As part of the routine checks on the vehicle before departing, drivers should check the glass covering the headlights is clean, the bulbs are in good working order and the lighting system is in the correct position. The windscreen should be clean and scratch-free, inside and out, as well as the rear view and side mirrors.

"And," stresses Letebele, "the golden rule of night driving is, 'Speed must go down with the sun'. This equally applies in situations in which visibility is poor."



Speed must go down with the sun