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Key concepts:

- Older people should be regularly assessed for their fitness to drive, especially when their medical conditions or medications change
- A medical certificate is required for driver
 licence renewal in people aged over 75 years
- If GPs are uncertain about a patient's fitness to drive, they may refer them to an occupational therapist trained in driving assessment
- Prepare patients early for the possibility that they may become unfit to drive at some point in the future
- There are several transport subsidies available for older people; make sure patients are aware of these options

Age-related factors can impact on driving ability

Older age itself is not a contraindication to driving, with thousands of licence holders in New Zealand aged over 90 years. However the incidence of medical conditions that can affect safe driving increases with age, e.g. dementia, stroke and cardiovascular disease. Other age-related factors that may impair driving include earlier onset of fatigue, slowed responses, visual problems, impaired cognitive function and impaired mobility.

In New Zealand, the two main causes of fatal crashes in 2008 were loss of control (40%) and driving too fast for the conditions (34%). Illness or disability was attributed as the

cause of 6% of fatal crashes. Of these incidents, one-third were due to illness with no warning and another third to impaired ability due to old age.¹

Being able to drive is extremely important for many older people, allowing them to remain independent and mobile. However holding a driver licence is not a right and the balance must be made, between retaining quality of life for the older person, and keeping them and others safe on the roads. Primary care plays an important role in helping to recognise when the time has come to review the driving ability of an older person.

Driver licence renewal process for older people

In New Zealand, a driver licence is valid for ten years up to the age of 75 years. After this, a licence is valid for five years only, then must be renewed every two years over the age of 80 years.

A medical certificate is required for driver licence renewal in people aged over 75 years and this is completed by a GP. After completing a clinical assessment the GP may recommend one of the following:

- 1. The patient is medically fit to drive and does not require further assessment.
- 2. The patient is medically fit to drive with specified conditions.
- The patient is medically fit to drive but an on-road safety test with a testing officer is recommended.
- 4. The patient is in need of further assessment before they can be deemed medically fit to drive (patient may be referred for specialist medical assessment or to an occupational therapist for driving assessment).
- 5. The patient is not medically fit to drive.

GPs may recommend that conditions are imposed on a patient's driver licence to improve safety such as automatic vehicle only, no night driving, driving within 10 kilometres of home, or after 9.00 a.m. and before 3.00 p.m. There is only space for 20 characters on the back of the photo licence for each special condition. It is important to ensure that any special recommended conditions for a licence are able to be checked by the traffic enforcement agency.

Advocating for patients who have been deemed unfit to drive

If a patient has been deemed unfit to drive according to New Zealand Transport Agency Standards, but their specific circumstances mean this is inappropriate, the GP may write to the Chief Medical Advisor for consideration of the case. A full licence may be granted in some situations, or a licence with restricted conditions may be given, such as a requirement for annual medical review. In the case of commercial drivers, a supporting report from a medical specialist is usually required.



Regularly assess older people for fitness to drive

A medical assessment is required for licence renewal in people aged over 75 years. However older drivers should be frequently assessed for fitness to drive, especially when their medical conditions or medications change.

It is often difficult to address the topic of driving fitness. If there is a danger of destroying a therapeutic relationship, a GP may consider referring the patient to another medical practitioner for assessment. If a patient is generally medically fit but there is still concern about their driving ability due to frailty, possible cognitive decline or a specific medical condition, they may be referred to a specially trained occupational therapist for a driving assessment. This recommendation can also be indicated on the driver's medical certificate if the patient is renewing their driver licence.

The specific type of driving assessment is dependent on the patient's medical condition. As a rule an occupational therapy driving assessment is only required, where there is a medical problem which impacts on the patient's physical or cognitive function, related to driving.

GP tip: Discussing driving fitness is often forgotten during complex consultations. Make this part of your "safety net" checklist at the end of each consultation. This is especially important in the case of an acute illness where the diagnosis has not been confirmed and when a new drug has been prescribed. Don't forget to record driving advice in the patient notes.

GP assessment of fitness to drive

When considering a patient's fitness to drive, the following factors should be taken into account:

- Do the patient's signs and symptoms of their individual condition affect their ability to drive?
- Does the patient have a condition in which sudden loss of vision or sudden impairment of driving ability may occur?

- Does the patient have a medical history of previous episodes of dizziness, vertigo, angina, visual disturbances or TIA?
- What are the effects of any medications that the patient is currently taking? Is the patient compliant with taking their medications?
- Does the patient have more than one medical condition that may affect driving fitness?
- What type of licence is held by the patient and what type of driving do they undertake? (e.g. passenger vehicle, heavy transport vehicle?)
- What is the patient's motor vehicle accident history?
 Has the patient had a previous accident related to a medical condition?

Clinical examination should include assessment of:

- Cardiovascular system especially poorly controlled hypertension, arrhythmias or significant ischaemic disease
- Central nervous system especially coordination and sensory loss, post-stroke effects, Parkinsonism, TIAs
- Musculoskeletal system general mobility and strength, especially in relation to arthritis and other degenerative conditions
- Cognitive or mental health issues orientation in time and place, recent memory, coordination, appropriateness of behaviour and responses, inattention, confusion, ability to communicate
- Sensory vision and hearing
- Other significant conditions such as severe respiratory illness or malignant disease

Refer to the New Zealand Transport Agency "Medical aspects of fitness to drive" guide (supplied to all GPs) for specific requirements and standards for testing.

Quick driving assessment

Consider if a new medical condition, change in medical condition, new medication or change in dose has the potential to compromise driving performance.

Signs that may indicate decline in an older person's driving abilities

GPs and practice nurses should be alert to signs which may indicate that an older person is having difficulty with driving. The patient themselves, or their family members, may comment on the following:

- Driving at inappropriate speeds too fast or too slow
- Asking passengers to help check if it is clear to pass or turn
- Responding slowly to or not noticing pedestrians, cyclists or other drivers
- Ignoring, disobeying or misinterpreting road signs and traffic lights
- Failing to give way to other vehicles or pedestrians that have the right of way
- Failing to judge distance between cars correctly
- Becoming easily frustrated and angry
- Appearing drowsy, confused or frightened
- Having one or more near accidents
- Drifting across lanes or bumping into curbs
- Forgetting to turn on headlights after dusk
- Difficulty with glare from oncoming headlights, streetlights etc
- Difficulty turning head, neck, shoulders or body when driving or parking
- Ignoring signs of mechanical problems with the car
- Having too little strength to turn the wheel quickly to avoid hazards
- Becoming lost in familiar areas or routes which would not have previously confused them
- Confusion when stopping or changing lanes
- Not making sound judgements about what is happening on the road

Does the change affect any of the following:

Physical - weakness, slow or limited movement?

Sensory – visual loss, limited feeling in limbs?

Cognitive/perceptual – slowed thinking, decreased attention?

Emotional - anxiety, panic reactions?

Questions to consider asking include: Is anyone concerned about your driving? Do you feel less confident about driving? Have you restricted your driving habits? Do you think you are a safe driver?

Simply observing the patient during the consultation may make it unnecessary to assess some of these functions, but consider examination of cognition, vision, motor skills and sensation.

Discussing being unfit to drive

Prepare patients early for the possibility that they may become unfit to drive at some point in the future. Allow the patient time to consider other transport alternatives that they may need to adopt. Changes could be made prior to a complete cessation of driving, including reducing the amount of time driving, avoiding peak traffic periods, avoiding highways and busy roads or avoiding driving at night time. Patients are usually open to suggestions of ways they can remain safe drivers.

If a patient has been deemed unfit to drive, discuss the reasons for this and when the decision may be reviewed (if at all). It is often a good idea to have this discussion in the presence of a supportive family member or friend. Consider putting the decision in writing for the patient, especially if long-term cessation of driving is advised.

If the patient agrees that they will not drive or will only drive under specified conditions, no further action is required. If the patient does not accept the advice and is likely to continue to drive, the New Zealand Transport Agency should be advised (see sidebar "Legal obligations").

In general, men find it more difficult than women to adjust to life without driving. Being without a driver licence is more of a threat to older men's independence and self-image. Be aware of these gender differences, and how the loss of a driver licence can affect others, that rely on that person for transport.

Driving restrictions for medical conditions common in older people

Table 1 (over page) contains a summary of driving restrictions applicable to medical conditions commonly seen in older people. For a full list of conditions and restrictions, refer to "Medical aspects of fitness to drive" guide.

Medications and alcohol may have an enhanced negative effect on driving in older people

Medications that cause drowsiness or distraction can have a significant impact on driving ability. Age-related changes in drug metabolism can enhance the effect of these medications in older people.

When starting any new medication in an older patient, consider what affect it may have on their driving ability. Adverse effects are often worse in the first few days of a new medication. Consider advising the patient to avoid driving until they know how a medicine will affect them.

Benzodiazepine use is most often associated with an increased risk of injury causing accident among older drivers. Other medications that may affect driving ability include opiates, antidepressants, antipsychotics, some antihistamines and some cold and flu preparations.

The effects of alcohol may also be enhanced in older people. This should be explained to older patients and recommended to them that they have minimal or no alcohol intake prior to driving.

Legal obligations of a medical practitioner in relation to driving fitness

The two legal obligations that medical practitioners must adhere to are:

- Advise the New Zealand Transport Agency (via the Chief Medical Adviser) of any individual who poses a danger to public safety by continuing to drive when advised not to.
- Consider the guide "Medical aspects of fitness to drive" when conducting a medical examination to determine if an individual is fit to drive.

N.B. "Medical aspects of fitness to drive: A guide for medical practitioners", provides information for GPs about situations in which driving ability should be assessed. This is a guide to good practice rather than a set of legally enforceable criteria.

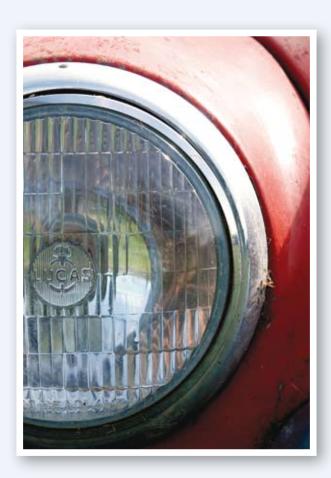


 Table 1: Summary of driving restrictions applicable to medical conditions commonly seen in older people

	Private vehicle or motorcycle licence	Heavy transport/passenger endorsement
Cerebrovascular accident (CVA)	Should not drive for at least one month and not until clinical recovery is complete, with no significant residual disability	Should not drive (exceptions may be granted for current licence holders)
Transient ischaemic attack (TIA)	Single TIA – should not drive for at least one month Multiple TIAs – may return to driving after three months, following investigation and treatment of condition	Single TIA – should not drive for at least six months. Multiple TIAs – should not drive (exceptions may be granted)
Neuromuscular disorders including Parkinsonism	Driving should cease when there is doubt about the ability to control the vehicle when rapid response is required	Should not drive (exceptions may be granted if mild symptoms only)
Dementia and other cognitive impairments	Driving should cease when impairments may affect the ability to drive safely	Should not drive
Angina pectoris	Proven or suspected – should not drive if angina pectoris at rest or on minimal exertion	Same as private class
Acute uncomplicated myocardial infarction	Should not drive for at least two weeks (return to driving subject to specialist assessment)	Should not drive for at least four weeks (return to driving subject to specialist assessment)
Severe hypertension	Should not drive if treatment causes symptomatic postural hypotension or impaired alertness	Should not drive if sitting blood pressure is consistently ≥ 200 mmHg systolic or ≥ 110 mmHg diastolic, or if treatment causes symptomatic postural hypotension or impaired alertness
Anticoagulation	Should not drive if anticoagulation cannot be maintained at the appropriate degree for the underlying condition	Same as private class
Cardiac failure and cardiomyopathy	Should not drive if dyspnoea present on mild exertion (return to driving subject to specialist assessment)	Should not drive (exceptions may be granted but not for hypertrophic cardiomyopathy or syncope)
Type 2 diabetes	Generally considered fit to drive unless severe hypoglycaemic unawareness* in which case, should not drive until successfully managed (*inability to detect developing hypoglycaemia and to respond to it appropriately)	Dietary control only – generally considered fit to drive Oral agents – generally considered fit to drive, but may be some licence conditions Insulin – some considered fit to drive, but likely to have licence conditions, specialist assessment necessary Severe hypoglycaemic unawareness - generally considered unfit to drive
Severe chronic mental disorder (including depression)	Driving should cease when the ability to drive safely may be impaired (return to driving subject to satisfactory treatment and usually after an observation period of six months)	Same as private class, but usually an observation period of 12 months before a return to driving

Transport subsidies and specialised equipment are available for older people

Mobility scooters and power chairs

Mobility scooters and power chairs (motorised wheelchairs) may be a suitable option for older people who are no longer able to drive a motor vehicle, have limited distance mobility outside the home and who are sufficiently cognitively capable. A driver licence is not required to operate these devices.

A mobility scooter costs approximately \$2000 – \$7000 to purchase. Second-hand scooters are available privately and from some retailers. Approximately 250 Lottery Grants are awarded each year for the purchase of a scooter. Some areas offer schemes (e.g. Wellington City Mobility) which provide a number of free scooters for short-term use.

Many local councils run training courses for using mobility scooters or power chairs. Contact the Road Safety Coordinator at the nearest council.

N.B. Lottery grants are also available for funding vehicle modifications for individuals with physical disabilities to drive or travel as a passenger.

Total Mobility taxi scheme

The Total Mobility taxi scheme offers subsidised transport for people with disabilities (mobility, sensory, psychiatric or intellectual) who have difficulty using public transport. After assessment for eligibility, a person will receive up to 50% discount on door-to-door transport (usually a taxi).

This scheme may not be available in all areas (e.g. rural) and there are local variations on the amount of discount applied. Contact the nearest local or regional council or Age Concern office.

Free off-peak public transport

SuperGold Card holders may be eligible for free off-peak public transport (9am to 3pm, after 6pm, weekends and

Occupational therapist driving assessment

Patients may be referred to a specially trained occupational therapist for a driving assessment if a GP is unsure if they are medically fit to drive.

The assessment consists of both off-road and onroad testing. As part of the off-road assessment, the occupational therapist will check vision, range of movement, strength, sensation, coordination, judgement, memory, directional orientation, movement and decision making times, cognition and comprehension and knowledge of road rules and signs.

Occupational therapists trained in driving assessments are skilled in distinguishing between driving behaviours that are existing routine habit, and those that are the result of a medical condition, especially where cognitive impairment is evident and/or there is a physical deficit.

If a patient's off-road testing is satisfactory, the occupational therapist will proceed to an on-road test. This may include driving on both urban roads and highways, driving through controlled and uncontrolled intersections, parking and manoeuvring.

The occupational therapist will send a report to the GP who requested the assessment, with a recommendation as to whether the patient is medically fit to drive. The GP then makes the final decision as to whether a medical certificate is issued.

Most occupational therapists undertaking driving assessments work in private practice. A full off-road and on-road assessment can cost between \$380 and \$550 with the average being around \$400 to \$450. This also includes the presence of a driving instructor, whose role is to risk manage the drive and intervene, if required.

Medical conditions which require driving assessment

Medical fitness to drive should be assessed in the presence of the following conditions:

Neurological	Vertigo, Meniere's disease, blackouts, epilepsy, myoclonus, cerebrovascular disease, progressive neurological disorders e.g. Parkinsonism, multiple sclerosis, dementia and other cognitive impairment, intracranial tumours or lesions, head injuries
Cardiovascular	Myocardial ischaemia, severe hypertension, arrhythmias and conduction abnormalities, valvular heart disease, cardiac failure and cardiomyopathy, anticoagulation, congenital heart disease, aneurysm, heart transplant, ECG changes
Diabetes	Type 1 and Type 2
Locomotor	Physical locomotor disabilities, congenital neurological conditions
Visual	Temporary visual impairments, loss of visual acuity, loss of visual fields, monocular vision, diplopia, night blindness, cataracts and aphakia, glare disability, colour blindness
Hearing	Hearing impairment
Mental disorders	Mental disorders affecting psychomotor or cognitive functioning, severe chronic mental disorders e.g. severe anxiety, schizophrenia, bipolar disorder
Age-related	Fatigue, slowed responses, visual problems, impaired cognitive function, impaired mobility, dementia
Other	Excessive daytime sleepiness, respiratory conditions, renal conditions, cancer, HIV and AIDS, intellectual disability, effects of medications, drug or alcohol dependency

Resources

For copies of the New Zealand Transport Agency Medical Certificates for driving assessment, phone **0800 822 422** ext **8089**.

The New Zealand Transport Agency has many downloadable resources on its website for older people including: Renewing driver licences at age 75

and over, supporting older drivers, keeping moving, guide to the on-road safety test and how to use a mobility scooter or power chair safely. See www.nzta.

govt.nz/resources

To find the nearest occupational therapy driving assessment service, contact Enable New Zealand on **0800 171 981** or the New Zealand Association of Occupational Therapists on **(04) 4736510**.

public holidays). There are local variations to the definition of off-peak travel and types of transport available therefore contact local councils for information.

Mobility Parking permit

The Mobility Parking permit allows users to park in accessible marked parks. Permit holders may also use standard car parks and metered spaces for longer than the stated times. The scheme is run by CCS Disability Action in partnership with local councils. To be eligible, a person must rely on mobility aids such as crutches, walking sticks or a walking frame, or be unable to walk for more than 200 meters unaided due to their condition. Permits cost \$45 for five years or \$30 for a temporary 12 month permit. GPs must certify applications.

For more information contact:
CCS Disability Action – **0800 227 2255**

National travel assistance scheme

DHBs provide funding for travel assistance to enable people to attend specialist health and disability support services i.e. if a specialist refers a patient to another publicly funded specialist, transport costs of getting there (and accommodation if applicable) may be covered. This does not apply to General Practice visits.

Reference and bibliography

 Ministry of Transport. Motor vehicle crashes in New Zealand 2008. Yearly Report. 2009. Available from: www.transport.govt.nz/ research/MotorVehicleCrashesinNewZealand2008

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Information in this article was primarily based on the following sources:

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