## **Driving**

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Obtaining a licence to drive is subject to legislation. The regulations are necessary because there is a higher rate of road traffic accidents and accidental deaths in drivers suffering from epilepsy<sup>1-5</sup>. For this reason obtaining a licence to drive is subject to legislation in most countries. Legislation needs to balance the excess risks of driving against the social and psychological disadvantage to individuals of prohibiting driving. The following outlines the regulations, and mechanisms for applying these, in the United Kingdom, and is based on documentation provided by the licensing authority and the Epilepsy Society websites.

In the UK, the Driving and Vehicle Licensing Agency (DVLA) and in Northern Ireland the DVLNI, have medical departments which, on behalf of the Secretary of State, are empowered to consider the medical history of a licence applicant/holder and can, with the applicant's consent, obtain medical details from an applicant's hospital doctor or general practitioner. The DVLA, and not the patient's personal medical advisors, make the decisions to allow/bar licensing. This arrangement, not shared by most other countries, has the important advantages that the medical aspects of the doctor-patient relationship are not overly compromised by questions of driving and that the personal doctors are not liable for the consequences.

DVLA regulations and guidance does change, so consult the latest version of the DVLA document 'At a Glance Guide to the Current Medical Standards of Fitness to Drive' is available on the internet at:

https://www.gov.uk/current-medical-guidelines-dvla-guidance-for-professionals-neurological-chapter-appendix

This document is recommended for a more detailed review of the current regulations and how to manage particular situations.

### Synopsis of current regulations

**Group 1** includes motor cars and motor cycles.

**Group 2** includes large lorries (category C) and buses (category D). The medical standards for Group 2 drivers are stricter than those for Group 1 because of the size of the vehicles and the higher risk entailed by the length of time the driver may spend at the wheel in the course of his/her occupation.

All drivers who obtained entitlement to Group 1, category B (motor car) before 1 January 1997 have additional entitlement to category C1 and D1. C1 is a medium size lorry of weight between 3.5 and 7.5 tonnes. D1 is a minibus of between 9 and 16 seats, not for hire or reward. Holders of C1 and D1 entitlement retain the entitlement until their licence expires or it is medically revoked. On subsequent renewal the higher medical standards applicable to Group 2 will apply. Under certain circumstances volunteer drivers can drive a minibus of up to 16 seats without having to obtain category D1 entitlement. Individuals should consult DVLA for a detailed fact sheet.

Epilepsy is a 'prescribed disability', which means that an individual with epilepsy is barred from holding a licence, unless the following criteria concerned with the control of seizures are met:

### Group 1 licences (motorcars, vans and motorcycles)

An applicant for a licence suffering from epilepsy shall satisfy the following conditions:

- a. They shall have been free of any epileptic attack during the period of one year immediately preceding the date when the licence is granted: or
- b. Asleep seizures with no history of awake seizures. If the individual has only **ever** had asleep seizures then once this pattern of only asleep seizures has been established for **one year**, they can apply for a new Group 1 licence to drive, even if asleep seizures continue. If awake seizures have occurred in the past, but seizures now only occur during sleep, a licence is permitted if the applicant has had seizures only during sleep for three or more years.
- c. The driving of a vehicle is not likely to be a source of danger to the public.
- d. Seizures which do not affect consciousness or ability to control a vehicle.

An individual can apply for a new Group 1 licence after one year of not driving, even if they are still having seizures **if all of the following apply**:

- they stay fully conscious during the seizures
- they would be able to act, react, and control a vehicle normally during the seizure
- they have **only** these types of seizures and no other type, and
- they have **never** had a seizure that affects consciousness or ability to control a vehicle.

This liberalisation does not apply, therefore, to individuals who have had epilepsy surgery for focal seizures with loss of awareness, and who continue to have auras following surgery.

e. A driving licence is restored after six months if a seizure is precipitated by a medically-advised drug change, if this change is reversed. The previously effective medication needs to have been reinstated for at least six months. An exception to this is a breakthrough seizure that does not affect consciousness or ability to drive, or that is an asleep seizure (see above). The individual still needs to tell the DVLA about the seizure, but may be allowed to drive and not lose their licence, depending on the type of seizures they have had previously.

The following circumstances commonly arise:

Single unprovoked seizures. These are not considered as 'epilepsy' by the DVLA unless a continuing liability can be demonstrated. The default for the licensing authority is to prohibit driving for a 12-month period after the attack. Driving privileges, however, may be restored after six months with the support of a neurologist and if MRI scan and EEG do not indicate a high risk of seizure recurrence.

*Provoked seizures*. If a seizure is considered to be 'provoked' by an exceptional condition which will not recur, epilepsy (defined as a condition with a continuing liability to seizures)

is not deemed to be present. Driving is usually allowed once the provoking factor has been successfully or appropriately treated, and provided that a 'continuing liability' to seizures is not also present. These cases are treated on an individual basis by the DVLA. A cautious attitude to 'provocation' is taken, however, and the provoking factor must be exceptional. Seizures related to alcohol or illicit drugs are not considered 'provoked'.

In the absence of any previous seizure history or previous cerebral pathology, the following seizures may also be regarded as provoked:

- eclamptic seizures
- reflex anoxic seizures
- an immediate seizure at the time of a head injury
- seizure in first week following a head injury
- at the time of a stroke/TIA or within the ensuing 24 hours
- during intracranial surgery or in the ensuing 24 hours

Seizures occurring during an acute exacerbation of multiple sclerosis or migraine will be assessed on an individual basis by DVLA.

*Electroencephalographic changes*. Although EEG can provide useful confirmation of epilepsy and its type, the diagnosis of epilepsy is essentially clinical. Episodes of 3 Hz spike/wave discharges in idiopathic generalised epilepsy and electrographic seizures are not a bar to driving if there is no clinical accompaniment.

*Neurosurgery*. When epileptic seizures occur following neurosurgery, the epilepsy regulations must be applied. An exception can be made when seizures occur at the time of surgery. Following intracranial surgery, even if seizures have not occurred, driving is usually prohibited for a period which varies according to the type of underlying pathology, and the nature and site of the neurosurgery. The duration of the period of restriction is based on the risk of seizures.

Cerebral lesions. When certain cerebral lesions are demonstrated, a single seizure is considered to be epilepsy (on the basis that a continuing liability to seizures is present). In the following conditions, even when epilepsy has not occurred, restrictions are applied because of the known risk of epilepsy: malignant brain tumours, cerebrovascular disease, serious head injury, intracranial haemorrhage and cerebral infection. The duration of the period of restriction is based on the risks of seizures developing.

Treatment status. The epilepsy regulations apply whether or not the patient is receiving antepileptic drugs (AEDs). Starting, or changing, AED treatment does not influence a decision about licensing. If antiepileptic medication is being completely withdrawn in a person with epilepsy who has been seizure free for some years and who has a Group 1 licence, the DVLA recommend that the individual does not drive during the tapering of the AED or the subsequent six months, as this is the period with the highest risk of seizure recurrence.

Obligations. There is a legal obligation for the individual with epilepsy to inform the DVLA about their condition. This is the case regardless of clinical or domestic circumstances or extenuating factors. The obligation on the doctor is to inform the patient about the regulations and their requirement to inform the DVLA. This instruction should be recorded in the medical notes, to avoid claims of negligence.

If an individual is known to be continuing to drive it is recommended to repeat the advice in the presence of their relatives, and to point out that their insurance policy would be invalid. If that individual is known to be continuing to drive it is appropriate to inform the DVLA, and advisable to tell the individual that you are doing this as the needs of public safety

outweigh the needs of medical confidentiality. It is sensible to inform the medical indemnity organisation and the GMC that you are taking this course and the reasons for your decision.

Withdrawal of AED on medical advice. From a medico-legal point of view, the risk of further epileptic seizures occurring during this therapeutic procedure should be noted. If an epileptic seizure does occur, the patient will need to satisfy driving licence regulations before resuming driving and will need to be advised accordingly.

It is recognised that AED withdrawal is associated with an increased risk of seizure recurrence. A number of studies have shown this, including the Medical Research Council Anti-epileptic Drug Withdrawal Study Group that found a 40% risk of seizure recurrence on withdrawal of medication.

The Secretary of State's Honorary Medical Advisory Panel on Driving and Disorders of the Nervous System has recommended that patients should be warned of the risk they run, both of losing their driving licence and also of having a seizure which could result in a road traffic accident. The Panel advises that patients should be advised not to drive from commencement of the period of withdrawal and thereafter for a period of six months after cessation of treatment.

# Group 2 licences (lorries larger than 3.5 tonnes and passenger carrying vehicles of nine seats or more for hire or reward)

An applicant for a licence shall satisfy the following conditions:

- a. No epileptic attacks have occurred in the preceding ten years and that the individual has taken no AED treatment during this period.
- b. There is no continuing liability to epileptic seizures.

The purpose of the second condition is to exclude persons from driving (whether or not epileptic seizures have actually occurred in the past) who have a potentially epileptogenic cerebral lesion or who have had a craniotomy or complicated head injury, for instance.

If a Group 2 licence holder has an episode of loss of awareness of uncertain cause, but which is not diagnosed as being due to epilepsy, their licence will be suspended for five years.

After an isolated epileptic seizure a Group 2 licence is suspended, and may be reinstated after five years if no AEDs have been taken to control epilepsy.

The Secretary of State may require an appropriate medical assessment by a neurologist; and be satisfied that the driving of a vehicle by the applicant, in accordance with the licence, is not likely to be a source of danger to the public.

### Taxis, ambulances or emergency service vehicles

The DVLA does not issue licences for taxis, ambulances or emergency service vehicles. It is recommended that Group 2 medical standards should be applied.

#### References

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- 3. PARSONS, M. (1986) Fits and other causes of loss of consciousness while driving. Q. J. Med. 58, 295-304.
- 4. HANSOTIA, P. and BROSTE, S.K. (1991) The effect of epilepsy or diabetes mellitus on the risk of automobile accidents. *N. Engl. J. Med.* 324, 22-26.
- 5. HANSOTIA, P., BROSTE, S.K. (1993) Epilepsy and traffic safety. *Epilepsia 34*, 852-858.

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