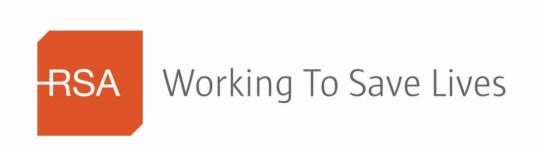
# MEDICAL ASPECTS OF DRIVER LICENSING

### A Guide for Registered Medical Practitioners 2010



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#### **INTRODUCTION**

The general medical condition of drivers does not appear to be a major cause of road accidents involving injury to other road users. The ability to drive can, however, be seriously impaired by certain medical conditions and drivers, and prospective drivers, are accordingly subject to medical review. The purpose is to keep the more seriously affected drivers off the roads or to restrict their driving within the limitations of their disability. The advice given by doctors to their patients in this regard can make a significant contribution to road safety. The purpose of this booklet is to assist doctors in their tasks as medical examiners for driver licensing purposes and as informed advisers to their patients in relation to safer driving.

The aspects and standards of physical and mental fitness set out in this booklet are those prescribed under the Road Traffic (Licensing of Drivers) Regulations 2006, Statutory Instrument Number 537 of 2006, as amended in 2010.

#### **CATEGORIES OF VEHICLES**

Vehicles are divided into categories (and sub-categories) for driver licensing purposes. These categories are based primarily on the type and degree of driving skills and experience which a driver needs. The categories and sub-categories are illustrated in the Table on page 4.

Vehicles are divided into only two broad groups, however, for the purpose of assessing the medical fitness of drivers the groups are based on the mental and physical demands placed on the driver of the vehicle and on the potential danger in the event of loss of control by the driver. The risk of death or other serious injury to other road users in collision with heavy goods vehicles for example, is very high because of their mass and lower braking capacity. Buses also present a special hazard because they are used to carry large numbers of people and because they are required to stop frequently at places where large numbers of people are congregated to board them. A higher standard of physical and mental fitness is, therefore, required in relation to such vehicles.

The grouping of vehicle categories for driver fitness purposes is :-

#### Group 1

categories A, A1, B, EB, M or W i.e. motorcycles, cars and tractors (with or without trailer)

#### Group 2

categories C, C1, D, D1, EC, EC1, ED or ED1 i.e. trucks and buses (with or without a trailer)

The vehicles in Group 2 are regarded as higher-risk vehicles which require a higher standard of physical and mental fitness on the part of the driver.

If it appears clear on medical examination that the patient suffers from a progressive disease or other condition which is likely to deteriorate and adversely affect his ability to drive, the medical report should recommend review after appropriate period e.g. 10 years, 3 years, 1 year.

It is suggested, however, that medical review should not be recommended unless at the time of examination there appears clearly to be a need for review.

#### CATEGORIES OF VEHICLES/MINIMUM AGE OF DRIVER

The table on the following page outlines the various vehicle categories for driver licensing purposes and the minimum ages required for taking out licences in the respective categories.

## <u>TABLE</u> <u>Categories of Vehicles/Minimum Age of Driver</u>

Category	Minimum Age	Vehicle
A1	16	Motorcycles with an engine size of 51-125 cc and/or a speed capability over 45 km/h, and with a power rating not exceeding 11 kW, with or without sidecar
A	18	Motorcycles with or without sidecar
В	17	Vehicles with passenger accommodation for not more than 8 persons and with a design g.v.w. not exceeding 3,500 kg
C1	18	Vehicles with passenger accommodation for not more than 8 persons with a design g.v.w over 3,500 kg but not over 7,500 kg
C	18	Vehicles with passenger accommodation for not more than 8 persons and with a design g.v.w over 3,500 kg
D1	21	Vehicles with passenger accommodation for more than 8 persons but not more than 16 persons
D	21	Vehicles with passenger accommodation for more than 8 persons
EB	17	Vehicles in category B with a trailer attached
EC1	18	Vehicles in category C1 with a trailer attached- the combination must not exceed 12,000 kg
EC	18	Vehicles in category C with a trailer attached
ED1	21	Vehicles in category D1 with a trailer attached- the combination must not exceed 12,000 kg
ED	21	Vehicles in category D with a trailer attached
M	16	Two-wheeled vehicles with an engine size not exceeding 50 cc and/or a speed capability not more than 45 km/h.
W	16	Work vehicles and land tractors, with or without a trailer attached.

<sup>&</sup>quot;Passenger accommodation" means seating accommodation for passengers in addition to the driver.

<sup>&</sup>quot;Design g.v.w." means design gross vehicle weight (i.e. design laden weight). Manufacturers generally refer to it as gross vehicle weight (g.v.w.) and it is usually displayed on a metal plate attached to the vehicle by the manufacturer.

#### GENERAL REQUIREMENTS FOR APPLICANTS

The primary requirements of medical assessment for driver licensing purposes are that a person making a first application for a provisional licence must:-

- (a) Undergo an eyesight test if the application relates to vehicles in Group 1, and
- (b) Undergo a full medical examination if the application relates to vehicles in Group 2.

An eyesight test may be carried out by a registered medical practitioner or by a registered ophthalmic optician, ie a person whose name is entered in the general register of medical practitioners, register of ophthalmic opticians, in Ireland. A medical examination may be carried out by a registered medical practitioner only. The report provided by the optician or doctor, as the case may be, must be submitted by the applicant to the local licensing authority TOGETHER with his application for a licence.

An applicant for a licence is also required to provide a medical report in certain other circumstances e.g. where he is over 70 years of age or suffers from any of the diseases or disabilities which are listed as requiring a medical report. Prescribed forms are available from motor tax offices for the provision of medical reports (ref. D. 501) and eyesight reports (ref. D. 502).

#### **Disqualifying Diseases**

A person who is (1) dependent on psychotropic substances or (2) suffers from serious arrhythmia which has resulted in loss of consciousness is disqualified from holding or applying for any driving licence or provisional licence.

#### REQUIRED STANDARDS OF FITNESS

The physical and mental fitness of a person to drive a vehicle should be assessed by reference to the following standards.

#### **Preamble**

Driving is more comfortable and safe if all medical conditions are under optimal control. Specialist opinion may be helpful in cases of doubt, not only to help decision-making when driving may no longer be safe but also to ensure a maximisation of health status and the provision of relevant compensatory measures i.e. spectacles, car choice, vehicle adaptations, physiotherapy.

#### **Eyesight**

1. Driving is a highly visual task and thus Visual Acuity Screening is an important step taken to prevent people with serious impairment in their central vision from driving. A positive impact of Visual Acuity Screening is that it ensures that signs and other critical markings in the roadway environment (lane markings) would be adequately legible to most drivers. Contrast sensitivity mentioned in this Annex refers to the amount of contrast a person needs in order to detect or identify an object or pattern. A person who has poor contrast sensitivity requires a higher contrast to see objects or patterns from a person who has good contrast sensitivity. Impairment of contrast sensitivity can result from a number of different eye and neurological conditions e.g. Cataracts, Macular Degeneration, Diabetic Retinopathy, Brain injury e.g. Stroke, Trauma or Tumour, Diplopia and Uncorrected Refractive Error.

The visual field referred to in the standards refers to ones entire spacial area of vision when fixation is stable and includes both central and peripheral vision. The size of a visual field is defined in terms of a visual angle. For an adult with normal vision, when both eyes are open, the visual field extends horizontally about 180° to 200° of visual angle and vertically about 100°. For each eye individually the horizontal field is about 160°. The visual field of one eye overlaps with that of the other eye to a very large degree although not totally. Visual fields are typically evaluated using a device called a Perimeter or a Tangent Screen. The Esterman visual field is probably the most reliable and reproducible visual field test. Impairment in the visual field can result from a number of different eye and neurological conditions including Glaucoma, Diabetic Retinopathy, Brain injury (Stroke, Trauma, Tumour).

Please pay particular attention to the assessment of Group II Licence holders ie categories C, C1, D, D1, EC, EC1, ED or ED1 i.e. trucks and buses (with or without a trailer) as the demands on drivers of such vehicles are significantly greater than personal driver licence holders.

Reference to a visual acuity standard of 0.1, 0.5, 0.8 can be taken as 6/60, 6/12, and 6/7.5 respectively. Reference to a "favourable opinion from vision experts" may be interpreted as referring to "favourable opinion from Ophthalmologists or Neurologists".

- 2. All applicants for a driving licence shall undergo an appropriate investigation to ensure that they have adequate visual acuity for driving power-driven vehicles. Where there is reason to doubt that the applicant's vision is adequate, he/she shall be examined by a competent medical authority. At this examination attention shall be paid, in particular, to the following: visual acuity, field of vision, twilight vision, glare and contrast sensitivity, diplopia and other visual functions that can compromise safe driving.
- 3. In the case of an applicant for a learner permit or driving licence to drive vehicles of category A1, A, B, EB, M or W

  (a) licensing may be considered in "exceptional cases" where the visual field standard or visual acuity standard cannot be met; in such cases the driver should

standard or visual acuity standard cannot be met; in such cases the driver should undergo examination by a competent medical authority to demonstrate that there is no other impairment of visual function, including glare, contrast sensitivity and twilight vision. The driver or applicant should also be subject to a positive practical test conducted by a competent authority.

- (b) The person shall have a binocular visual acuity, with corrective lenses if necessary, of at least 0,5 when using both eyes together. The horizontal visual field should be at least 120 degrees, the extension should be at least 50 degrees left and right and 20 degrees up and down. No defects should be present within a radius of the central 20 degrees.
- (c) When a progressive eye disease is detected or declared, driving licences may be issued or renewed subject to the applicant undergoing regular examination by a competent medical authority.
- (d)Who have total functional loss of vision in one eye or who use only one eye (e.g. in the case of diplopia) must have a visual acuity of at least 0,5, with corrective lenses if necessary. The competent medical authority must certify that this condition of monocular vision has existed for a sufficiently long time to allow adaptation and

that the field of vision in this eye meets the requirement laid down in paragraph (b).

(e) After any recently developed diplopia or after the loss of vision in one eye, there should be an appropriate adaptation period of a minimum duration of 6 months, during which driving is not allowed. After this period, driving is only allowed following a favourable opinion from vision experts.

- 4. In the case of an applicant for a learner permit or driving licence to drive vehicles of category C1, C, D1, D, EC1, EC, ED1 or ED
  - (a) the person shall have a visual acuity, with corrective lenses if necessary, of at least 0,8 in the better eye and at least 0,1 in the worse eye. If corrective lenses are used to attain the values of 0,8 and 0,1, the minimum acuity (0,8 and 0,1) must be achieved either by correction by means of glasses with a power not exceeding plus eight dioptres, or with the aid of contact lenses. The correction must be well tolerated.

The horizontal visual field with both eyes should be at least 160 degrees, the extension should be at least 70 degrees left and right and 30 degrees up and down. No defects should be present within a radius of the central 30 degrees.

- (b)A learner permit or driving licence shall not be issued to a person who suffers from impaired contrast sensitivity or from diplopia.
  - (c) After a substantial loss of vision in one eye, there should be an appropriate adaptation period of a minimum duration of 6 months, during which the subject is not allowed to drive. After this period, driving is only allowed after a favourable opinion from vision experts.

#### 1. General

(1) In the case of an applicant for a licence to drive a vehicle of any category, the medical examination shall take account of the following aspects of the applicant's physical and mental condition:

ear conditions (vertigo and labyrinthine conditions), general physique and physical disabilities; Condition of cardiovascular system, Condition of haemopoietic system, Condition of endocrine system, Condition of respiratory system, Condition of gastro-intestinal system, Condition of genito-urinary system, Condition of nervous system, Condition of mental system,

In so far as any condition of abnormality in any one or more of these aspects would affect such person's fitness to drive safely vehicles of that category having regard to –

- (a) the ability of the person concerned, both physically and mentally, to operate efficiently and safely the controls of the vehicles and to continue so to operate the controls over a reasonable period,
- (b) the susceptibility of the person concerned to sudden incapacity,

such as loss of consciousness, fainting or giddiness, which might affect such person's ability to operate the controls of the vehicle so as to bring the vehicle to stop safely, and

- (c) the susceptibility of the person concerned to fatigue such that such person's ability to operate the controls of the vehicle might be seriously impaired.
- (1) Fitness to drive shall not be certified in the case of an applicant to drive a vehicle of any category who suffers from any condition or abnormality in anyone or more of the aspects of such person's Physical or Mental condition set out in sub paragraph (1) of this paragraph to such extent that the driving by the applicant of vehicles of the category to which the application relates would be a danger to the applicant or other road users.
- (2) Special attention shall be paid to the additional risks and dangers involved in driving vehicles of category C1, C, D1, D, EC1, EC, ED1 or ED.
- 2. General Physique and Physical Disabilities.
  - (1) As a general rule, fitness to drive shall not be certified in respect of persons suffering from complaints or abnormalities of the locomotor system which make it dangerous for them to drive a power-driven vehicle.
  - (2) In the case of an applicant for a licence to drive vehicles of category A1, A, B, EB, M or W, fitness to drive may be certified in respect of physically handicapped persons subject to periodic medical review.

Where a person is suffering from a progressive complaint, fitness to drive may be certified on condition that the disabled person is regularly examined to check that the person concerned is still capable of driving the vehicle efficiently and safely.

(3) In the case of an applicant for a licence to drive vehicles of category C1, C, D1, D, EC1, EC, ED or ED1 the medical examination shall cover the full range of body movements – strength, control and co-ordination - and in particular, movements of the upper and lower limbs. Fitness to drive shall not be certified if the applicant has any disablement which is likely to prevent the proper and safe control of such vehicles.

#### 3. Hearing

In the case of an applicant for a licence to drive a vehicle of category C1, C, D, D1, EC1, EC, ED1 or ED, fitness to drive shall not be certified if the applicant's hearing is so deficient that it interferes with the proper discharge of his duties as a driver.

#### 4. Cardiovascular Diseases

- (1) Any disease capable of exposing an applicant for a first licence or a driver applying for a renewal of a licence to a sudden failure of the cardiovascular system such that there is a sudden impairment of the cerebral functions constitutes a danger to road safety.
- (2) In the case of an applicant for a licence to drive vehicles of category A1, A, B, EB, M or W, the following should be noted
  - (a) fitness to drive shall not be certified if the applicant suffers from serious arrhythmia resulting in loss of consciousness. In this connection, persons with ventricular tachyarrhythmias treated by an implantable cardioverter-defibrillator (ICD) have an ongoing risk of sudden incapacitation that might cause harm to others while driving. Such persons with New York Heart Functional Class III shall not be certified as being fit to drive. However, fitness to drive may be certified in respect of such patients with New York Heart Functional Class I or II subject to (i) certification by a consultant cardiologist, and (ii) regular medical review
  - (b) fitness to drive may be certified in respect of persons wearing a pacemaker subject to regular medical review:
  - (c) the question whether to certify a person suffering from abnormal arterial blood pressure as being fit to drive shall be assessed with reference to the other results of the medical examination, any associated complications and the danger they might constitute to road safety; and
  - (d) generally speaking, fitness to drive shall not be certified in respect of persons suffering from angina during rest or emotion. Persons who have suffered myocardial infarction may be certified as being fit to drive subject to regular medical review.
- (3) In the case of an applicant for a licence to drive vehicles of category C1, C, D1, D, EC1, EC, ED1 or ED who suffers from cardiovascular diseases, the medical examination shall take due account of the additional risks and dangers involved in the driving of such vehicles.

#### 5. Endocrine Disorders.

(1) Drivers with Diabetes as a group are at an increased risk of having motor vehicle crashes. Although it is agreed that the major risks involved is that associated with Hypoglycaemia it appears that the Hypoglycaemic phenomenon by itself does not explain all the increased risks. Consequently all drivers with Diabetes should be counselled to the effect that they are at increased risk and that even mild Hypoglycaemia should be avoided when they are driving.

Frequent stops and snacks, easy availability of glucose supplements and early recognition of signs of impending Hypoglycaemia are important in this context.

- (2) In the following paragraphs, a severe hypoglycaemia means that the assistance of another person is needed and a recurrent hypoglycaemia is defined as a second severe hypoglycaemia during a period of 12 months.
- (3) In the case of an applicant for a learner permit or driving licence to drive vehicles of category A1, A, B, EB, M or W permits or licences may be issued to, or renewed for, applicants or drivers who have diabetes mellitus. When treated with medication, they should be subject to authorised medical opinion, preferably an Endocrinologist/Diabetologist, and regular medical review, appropriate to each case, but the interval should not exceed five years.
- (4) Driving licences shall not be issued to, nor renewed for, applicants or drivers who have recurrent severe hypoglycaemia or/and impaired awareness of hypoglycaemia. A driver with diabetes should demonstrate an understanding of the risk of hypoglycaemia and adequate control of the condition.
  - (5)In the case of an applicant for a learner permit or driving licence to drive vehicles of category C1, C, D1, D, EC1, ED1 or ED consideration may be given to the issuing permits/licences to persons with diabetes mellitus. When treated with medication which carries a risk of inducing hypoglycaemia (that is, with insulin, and some tablets), the following criteria should apply:
- (a) no severe hypoglycaemic events have occurred in the previous 12 months,
- (b) the driver has full hypoglycaemic awareness,
- (c) the driver must show adequate control of the condition by regular blood glucose monitoring, at least twice daily and at times relevant to driving,
- (d) the driver must demonstrate an understanding of the risks of hypoglycaemia,
- (e) there are no other debarring complications of diabetes.

In these cases, such permit or licences should be issued subject to the opinion of a competent medical authority, preferably an Endocrinologist/Diabetologist, and to regular medical review, undertaken at intervals of not more than three years.

(5). A severe hypoglycaemic event during waking hours, even unrelated to driving" should result in the issuing of advice not to drive and should give rise to a reassessment of the licensing status following expert medical opinion, preferably Endocrinologist/Diabetologist.

- 6. Diseases of the Nervous System
- (1) In the case of an applicant for a licence to drive a vehicle of any category who suffers from -
  - (a) encephalitis, multiple sclerosis, myasthenia gravis or hereditary diseases of the nervous system associated with progressive muscular atrophy and congenital myotonic disorders,
  - (b) diseases of the peripheral nervous system, or
  - (c) trauma of the central or peripheral nervous system,

fitness to drive shall be certified for a limited period only so as to ensure that the applicant remains under medical supervision.

Neurological disturbances associated with diseases or surgical intervention affecting the central or peripheral nervous system, which lead to sensory or motor deficiencies and affect balance and co-ordination, must be taken into account in relation to their functional effects and the risks of progression. In such cases and in the event of risk of deterioration, fitness to drive shall be for a limited period only.

- (2) (a) Epilepsy is a common medical disorder characterised by recurrent seizures. Patients with Epilepsy (seizure disorders) are at increased risk for motor vehicle crashes because of a seizure, the underlying condition causing seizures or antiepileptic drugs (A.E.D.) side-effects. Therefore assessment of candidates for Group I and Group II Licence requires careful consideration and specifically accurate history taking.
  - (b) (i) Epileptic seizures or other sudden disturbances of the state of consciousness constitute a serious danger to road safety if they occur in a person driving a power-driven vehicle.
    - (ii) Epilepsy is defined as having had two or more epileptic seizures, less than five years apart.
    - (iii) A provoked epileptic seizure is defined as a seizure which has a recognisable causative factor that is avoidable.
  - (iv) A person who has an initial or isolated seizure or loss of consciousness should be advised not to drive. A specialist report is required, stating the period of driving prohibition and the requested follow-up.
  - (v) It is extremely important that the person's specific epilepsy syndrome and seizure type are identified so that a proper evaluation of the person's driving safety can be undertaken (including the risk of further seizures) and the appropriate therapy instituted. This should be done by a neurologist.
- (c) In the case of an applicant for a permit/ licence to drive a vehicle of any category A1, A, B, EB, M or W -

- (i) drivers assessed with epilepsy should be under licence review until they have been seizure-free for at least five years. Drivers in these licence categories who suffer from epilepsy should be under licence review on an annual basis until they have been seizure free for at least five years.
- (ii) if the person has epilepsy, the criteria for an unconditional licence are not met. Notification should be given to the licensing authority.
- (iii) provoked epileptic seizure: the applicant who has had a provoked epileptic seizure because of a recognisable provoking factor that is unlikely to recur at the wheel can be declared able to drive on an individual basis, subject to neurological opinion (the assessment should be, if appropriate, in accordance with other relevant sections of this Schedule (e.g. in the case of alcohol or other co-morbidity).
- (iv)First or single unprovoked seizure: the applicant who has had a first unprovoked epileptic seizure can be declared able to drive after a period of six months without seizures, if there has been an appropriate medical assessment preferably a Neurological assessment.
  - (v) Other loss of consciousness: the loss of consciousness should be assessed according to the risk of recurrence while driving. For those where there is a strong clinical suspicion of a seizure but no definite evidence the following seizure markers act as indicators but are not necessarily absolute:
  - (1) Unconsciousness for more than five minutes
  - (2) Amnesia longer than five minutes
  - (3) Injury resulting from the loss of consciousness
  - (4) Tongue biting
  - (5) Incontinence
- (6) Remains conscious but with confused behaviour
- (7) Headaches post attack.
  - (vi) Epilepsy"(second unprovoked seizure): persons can be declared fit to drive after a one-year period free of further seizures.
  - (vii) Seizures exclusively in sleep: the applicant or driver who has never had any seizures other than seizures during sleep can be declared fit to drive so long as this pattern has been established for a period which must not be less than the seizure-free period required for epilepsy (i.e. one year). If there is an occurrence

- of attacks/seizure arising while awake, a one-year period free of further event before licensing is required.
- (viii) Seizures without influence on consciousness or the ability to act: the applicant or driver who has never had any seizures other than seizures which have been demonstrated exclusively to affect neither consciousness nor cause any functional impairment can be declared fit to drive so long as this pattern has been established for a period which must not be less than the seizure-free period required for epilepsy (i.e. one year). If there is an occurrence of any other kind of attacks/seizures a one-year period free of further event before licensing is required.
- (ix) Seizures because of a physician-directed change or reduction of anti-epileptic therapy: the patient may be advised not to drive from the commencement of the period of withdrawal and thereafter for a period of six months after cessation of treatment. Seizures occurring during physician-advised change or withdrawal of medication require three months off driving if the previously effective treatment is reinstated.
- (x) Subsequent to curative epilepsy surgery: see paragraph (2)(a)(ii) above.
- (c) In the case of an applicant for a permit/licence to drive a vehicle of any category C1, C, D1, D, EC1, EC, ED1 or ED.
  - (i) drivers assessed with epilepsy should be under licence review until they have been seizure-free for at least five years.
  - (ii) the applicant should be without anti-epileptic medication for the required period of seizure freedom. An appropriate medical follow-up has been done. On extensive neurological investigation, no relevant cerebral pathology was established and there is no epileptiform activity on the electroencephalogram (EEG). An EEG and an appropriate neurological assessment should be performed after the acute episode.
  - (iii) provoked epileptic seizure: the applicant who has had a provoked epileptic seizure because of a recognisable provoking factor that is unlikely to recur at the wheel can be declared able to drive on an individual basis, subject to

neurological opinion. An EEG and an appropriate neurological assessment should be performed after the acute episode.

A person with a structural intra-cerebral lesion who has increased risk of seizures should not be able to drive vehicles of these categories until the epilepsy risk has fallen to at least 2% per annum. The assessment should be, if appropriate, in accordance with other relevant sections of this Schedule (e.g. in the case of alcohol).

Seizures associated with alcohol or drug misuse, sleep deprivation or structural abnormality are not considered provoked seizures for licensing purposes. Similarly reports of seizures as a side-effect of prescribed medication do not automatically imply that such events will be considered as provoked. In the absence of any previous seizure history or previous cerebral pathology the following seizures may also be treated as provoked:

- (1) Eclamptic seizures
- (2) Reflex anoxic seizures
- (3) An immediate seizure within seconds at the time of a head injury.
- (4) Seizure in the first week following a head injury which is not associated with any damage on CT or MRI Scanning nor with post traumatic amnesia of longer than thirty minutes.
- (5) At the time of a Stroke/T.I.A. or within the ensuing twenty-four hours.
- (6) During inter-cranial surgery or in the ensuing twenty-four hours.

Please note that seizures occurring during an acute exacerbation of Multiple Sclerosis or Migraine need to be assessed on an individual basis by a Neurologist.

(iv) First or single unprovoked seizure: the applicant who has had a first unprovoked epileptic seizure can be declared able to drive once five years' freedom from further seizures has been achieved without the aid of anti-

epileptic drugs, if there has been an appropriate neurological assessment. Drivers with recognised good prognostic indicators may drive sooner.

- (v) Other loss of consciousness: the loss of consciousness should be assessed according to the risk of recurrence while driving. The risk of recurrence should be 2% per annum or less.
- (vi) 10 years freedom from further seizures shall have been achieved without the aid of anti-epileptic drugs. A licence or permit may be granted in under ten years to applicants with recognised good prognostic indicators. This also applies in case of "juvenile epilepsy".

Certain disorders (e.g. arterio-venous malformation or intra-cerebral haemorrhage) entail an increased risk of seizures, even if seizures have not yet occurred. In such a situation an assessment should be carried out by a competent medical authority; the risk of having a seizure should be 2 % per annum or less to allow licensing.

(vii) Severe restrictions may discourage drivers from reporting seizures to their Clinician lessening the chances that they will seek treatment and increasing their health and driving safety risks. In this situation Clinicians may be discouraged from withdrawing certification from drivers who have had a seizure but there is potential liability for certifying potentially unsafe drivers. Duration of seizure free period helps to predict future risk for seizure recurrence. The odds of crashing are markedly reduced with long seizure free intervals. Annual risk of seizure recurrence is less than 2% after eight years and less than 1% after ten years. This latter figure is still twenty times greater than the general population seizure risks of 0.05% per year.

Finally, please remember that the rules for Commercial Drivers or Group II Licence Holder are traditionally much more stringent because of the high stakes of a crash e.g. a driver of a passenger bus or articulated truck. Information of seizure free periods as an index of seizure control often depends on patient

accounts which may be inaccurate. Consequently evaluation of driving risk in Epilepsy should consider additional factors besides seizure free interval including specific seizure type, causes and treatment factors.

- (3) In the case of an applicant for a licence to drive vehicles of Category A1, A, B, EB, M or W who suffers from a cerebrovascular disease, fitness to drive may be certified
  - (a) provided that, where necessary, the controls of the vehicle to be driven are suitably rearranged or modified or a suitable special type of vehicle is used, and
  - (b) for a limited period only so as to ensure that the applicant remains under medical supervision.
- (4) In the case of an applicant for a licence to drive vehicles of category A1, A, B, EB, M or W who has suffered a lesion with damage to the spinal cord and resultant paraplegia, fitness to drive may be certified subject to the vehicle to be driven being fitted with special controls.
- (4) In the case of an applicant for a licence to drive vehicles of category C1, C, D1, D, EC1, EC, ED1 or ED, fitness to drive shall not be certified where the applicant suffers, or has at any time suffered, from a cerebrovascular disease or a lesion with damage to the spinal cord and resultant paraplegia.

#### 7. Mental Disorders

- (1) In the case of an applicant for a licence to drive vehicle of category A1, A, B, EB, M or W, the medical examination shall take due account of:-
  - (a) severe mental disturbance, whether congenital or due to disease, trauma or neurosurgical operation on the central nervous system;
  - (b) severe mental retardation;
  - (c) psychosis, which in particular has caused general paralysis; or
  - (d) severe behavioural problems due to dementia; psychoneurosis; or personality defects or disorders leading to seriously impaired judgement, behaviour or adaptability.

If necessary, certification shall be for a limited period only.

(2) In the case of an applicant for a licence to drive vehicles of category C1, C, D1, D, EC1, EC, ED1, or ED who suffers from any of the disorders outlined in (1) above, the medical examination shall take due account of the additional risks and dangers involved in the driving of such vehicles.

#### 8. Alcohol

In the case of an applicant for a licence to drive vehicles of any category who suffers from or has suffered in the past from alcoholism, fitness to drive may be certified for a limited period only, so as to ensure that the applicant remains under medical supervision.

#### 9. Drugs (prescription and illicit) and Medications

#### (1) Abuse:

In the case of an applicant for a licence to drive vehicles of any category, fitness to drive shall not be certified if the person concerned is dependent on psychotropic substances or, if the person is not dependent on such substances, regularly abuses them.

#### (2) Regular Use:

- (a) In the case of an applicant for a licence to drive vehicles of category A1, A, B, EB, M or W, fitness to drive shall not be certified if the person concerned regularly uses psychotropic substances, in whatever form, which can hamper the ability to drive safely where the quantities absorbed are such as to have an adverse effect on driving. This shall apply to all other medications or combinations of medications which affect the ability to drive.
- (b) In the case of an applicant for a licence to drive vehicles of category C1, C, D1, D, EC1, EC, ED1 or ED who regularly uses psychotropic substances or medications, the medical examination shall take due account of the additional risks and dangers involved in the driving of such vehicles.

#### 10. Diseases of the Blood

In the case of an applicant for a licence to drive a vehicle of any category, special attention shall be paid to serious diseases of the blood.

#### 11. Renal Disorders

In the case of an applicant for a licence to drive vehicles of any category, fitness to drive shall not be certified where the applicant suffers from severe renal deficiency to such extent that the driving by the applicant of vehicles of the category to which the application relates would be a danger to the applicant or to other road users.

#### 12. Miscellaneous Provisions

- (1) In the case of an applicant for a licence to drive vehicles of category A1, A, B, EB, M or W who has had an organ transplant or an artificial implant which affects the ability to drive, fitness to drive may be certified subject to periodic medical review. Fitness to drive may also be certified in respect of such persons to drive vehicles of category C1, C, D1, D, EC1, EC, ED1 or ED but due account should be taken of the additional risks and dangers involved in the driving of such vehicles.
- (2) As a general rule, where an applicant for a licence to drive a vehicle of any category suffers from any disorder not mentioned in subparagraph (1) above which gives rise to, or is likely to result in, a functional incapacity affecting safety at the wheel, the medical examination shall take due account of the risks and dangers involved in the driving of the vehicles in question and certification of fitness in such instances shall be subject to periodic medical review.

#### VEHICLE ADAPTATIONS

Persons seeking advice on what vehicle adaptations might best suit a particular disability or medical condition or persons with a progressive condition which might require (further) adaptation(s) to a vehicle to enable them to continue driving might be referred to either of the following organisations for appropriate technical advice:-

Irish Wheelchair Association, 24 Blackheath Drive, Clontarf, Dublin 3. Tel No: 01-8186400

**Disabled Drivers Association,** 

Ballindine, Co Mayo,

Tel No: 094 9364266