

Medical Advisory Criteria

Note Unlike regulations which are codified and have a statutory base, the recommendations in this advisory are simply guidance established to help the medical examiner determine a driver's medical qualifications pursuant to Section 391.41 of the Federal Motor Carrier Safety Regulations (FMCSRs). The Office of Motor Carrier Research and Standards routinely sends copies of these guidelines to medical examiners to assist them in making an evaluation. The medical examiner may, but is not required to, accept the recommendations. Section 390.3(d) of the FMCSRs allows employers to have more stringent medical requirements.

391.41(b)(1)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no loss of a foot, leg, hand, or arm, or has been granted a Skill Performance Evaluation (SPE) Certificate pursuant to Section 391.49, and

391.41(b)(2)

A person is physically qualified to drive a commercial motor vehicle if that person has no impairment of:

(i) A hand or finger which interferes with **prehension** or power grasping.

(ii) An arm, foot, or leg which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle.

(iii) Any other significant limb defect or limitation which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle.

(iv) **Has** been granted a Skill Performance Evaluation (SPE) certificate pursuant to Section 391.49.

A person who suffers loss of a foot, leg, hand or arm or whose limb impairment in any way interferes with the safe performance of normal tasks associated with operating a commercial motor vehicle is subject to the SPE Certification Program pursuant to Section 391.49, assuming the person is otherwise qualified.

With the advancement of technology, medical aids and equipment, modifications have been developed to compensate for certain disabilities. The SPE Certification Program (formerly the Limb Waiver Program) was designed to allow persons with the loss of a foot or limb or with functional impairment to qualify under the Federal Motor Carrier Safety Regulations (FMCSRs) by use of prosthetic devices or equipment modifications which enable them to safely operate a commercial motor vehicle. Since there are no medical aids equivalent to the original body or limb, certain risks are still present, and thus restrictions may be included on individual SPE certificates when a State Director for the FMCSA determines they are necessary to be consistent with safety and public interest.

If the driver is found otherwise medically qualified (391.41(b)(3) through (13)), the medical examiner must check on the medical certificate that the driver is qualified only if accompanied by a SPE certificate. The driver and the employing motor carrier are subject to appropriate penalty if the driver operates a motor vehicle in interstate or foreign commerce without a current SPE certificate for his/her physical disability.

391.41(b)(3)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control.

Diabetes mellitus is a disease which, on occasion, can result in a loss of consciousness or disorientation in time and

space. Individuals who require insulin for control have conditions which can get out of control by the use of too much or too little insulin, or food intake not consistent with the insulin dosage. Incapacitation may occur from symptoms of hyperglycemic or hypoglycemic reactions (drowsiness, **semiconsciousness**, diabetic coma, or insulin shock).

The administration of insulin is within itself, a complicated process requiring insulin, syringe, needle, alcohol sponge and a sterile technique. Factors related to long-haul commercial motor vehicle operations such as fatigue, lack of sleep, poor diet, emotional conditions, stress, and concomitant illness, compound the diabetic problem. Because of these inherent dangers, the FMCSA has consistently held that a diabetic who uses insulin for control does not meet the minimum physical requirements of the FMCSRs.

Hypoglycemic drugs, taken orally, are sometimes prescribed for diabetic individuals to help stimulate natural body production of insulin. If the condition can be controlled by the use of oral medication and diet, then an individual may be qualified under the present rule.

See Conference Report on Diabetic Disorders and Commercial Drivers and Insulin-Using Commercial Motor Vehicle Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>

391.41(b)(4)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no current clinical diagnosis of myocardial infarction, angina pectoris, coronary insufficiency, thrombosis.

or

Any other cardiovascular disease of a variety known to be accompanied by syncope, dyspnea, collapse, or congestive cardiac failure.

The term "has no current clinical diagnosis of" is specifically designed to encompass, (1) a current cardiovascular condition; or (2) a cardiovascular condition which has not fully stabilized regardless of the time limit. The term "known to be accompanied by" is designed to include a clinical diagnosis of a cardiovascular disease (1) which is accompanied by symptoms of syncope, dyspnea, collapse, or congestive cardiac failure; and or (2) which is likely to cause syncope, dyspnea, collapse, or congestive cardiac failure.

It is the intent of the Federal Motor Carrier Safety Regulations to render unqualified, a driver who has a current cardiovascular disease which is accompanied by and/or likely to cause symptoms of syncope, dyspnea, collapse, or congestive cardiac failure. However, the subjective decision of whether the nature and severity of an individual's condition will likely cause symptoms of cardiovascular insufficiency is on an individual basis and qualification rests with the medical examiner and the motor carrier. In those cases where there is an occurrence of cardiovascular insufficiency (myocardial infarction, thrombosis, etc.), it is suggested that, before a driver is certified, he/she have a normal resting and stress ECG, no residual complications, no physical limitations, and is taking no medication likely to interfere with safe driving.

Coronary artery bypass surgery and pacemaker implantation are remedial procedures and thus not unqualifying. Implantable cardioverter defibrillators are disqualifying due to risk of syncope. Coumadin is a medical treatment which can improve the health and safety of the driver and should not, by its use, medically disqualify the commercial driver. The emphasis should be on the underlying medical condition(s) which require treatment and the general health of the driver. FMCSA should be contacted at (202) 366-1790 for additional recommendations regarding the physical qualification of drivers on coumadin.

(See Cardiovascular Advisory Panel Guidelines for the Medical Examination of Commercial Motor Vehicle Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>)

391.41(b)(5)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no established medical history or clinical diagnosis of a respiratory dysfunction likely to interfere with the ability to control and drive a commercial motor vehicle safely.

Since a driver must be alert at all times, any change in his or her mental state is in direct conflict with highway safety. Even the slightest impairment in respiratory function under emergency conditions (when greater oxygen supply is necessary for performance) may be detrimental to safe driving.

There are many conditions that interfere with oxygen exchange and may result in incapacitation, including emphysema, chronic asthma, carcinoma, tuberculosis, chronic bronchitis and sleep apnea. If the medical examiner detects a respiratory dysfunction, that in any way is likely to interfere with the driver's ability to safely control and drive a commercial motor vehicle, the driver must be referred to a specialist for further evaluation and therapy.

Anticoagulation therapy for deep vein thrombosis and/or pulmonary thromboembolism is not unqualifying once optimum dose is achieved, provided lower extremity venous examinations remain normal and the treating physician gives a favorable recommendation.

See Conference on Pulmonary/Respiratory Disorders and Commercial Drivers at:
<http://www.fmcsa.dot.gov/rulesregs/medreports.htm>

391.41(b)(6)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no current clinical diagnosis of high blood pressure likely to interfere with the ability to operate a commercial motor vehicle safely.

Hypertension alone is unlikely to cause sudden collapse; however, the likelihood increases when target organ damage, particularly cerebral vascular disease is present. This advisory criteria is based on FMCSA's Cardiovascular Advisory Guidelines for the Examination of CMV Drivers, which used the Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (1997).

Stage 1 hypertension corresponds to a systolic BP of 140-159 mmHg and/or a diastolic BP of 90-99 mmHg. The driver with a BP in this range is at low risk for hypertension-related acute incapacitation and may be medically certified to drive for a one-year period. Certification examinations should be done annually thereafter and should be less than 140/90. If less than 160/100, certification may be extended one time for three months.

A blood pressure of 160-179 systolic and/or 100-109 diastolic is considered **Stage 2** hypertension, and the driver is not necessarily unqualified during evaluation and institution of treatment. The driver is given a one time certification of three months to reduce his or her blood pressure to less than 140/90. A blood pressure in this range is an absolute indication for antihypertensive drug therapy. Provided treatment is well tolerated and the driver demonstrates a BP value of less than 140/90, he or she may be certified for one year from the date of the initial exam. The driver is certified annually thereafter.

A blood pressure at or greater than 180 (systolic) and 110 (diastolic) is considered **Stage 3**, high risk for an acute BP-related event. The driver may **not** be qualified, even temporarily, until reduced to less than 140/90 and treatment is well tolerated. The driver may be certified for 6 months and biannually (every 6 months) thereafter if at recheck BP is less than 140/90.

Annual recertification is recommended if the medical examiner does not know the severity of hypertension prior to treatment.

An elevated blood pressure finding should be confirmed by at least two subsequent measurements on different days.

Treatment includes non-pharmacologic and pharmacologic modalities as well as counseling to reduce other risk factors. Most antihypertensive medications also have side effects, the importance of which must be judged on an individual basis. Individuals must be alerted to the hazards of these medications while driving. Side effects of somnolence or syncope are particularly undesirable in commercial drivers.

Secondary hypertension is based on the above stages.

Evaluation is warranted if patient is persistently hypertensive on maximal or near-maximal doses of 2-3 pharmacologic agents. Some causes of secondary hypertension may be amenable to surgical intervention or specific pharmacologic therapy. (See Cardiovascular Advisory Panel Guidelines for the Medical Examination of Commercial Motor Vehicle Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>)

GUIDELINES FOR BLOOD PRESSURE EVALUATION

Reading	Category	Expiration Date	Recertification
140-159/90-99	Stage 1	1 year	1 year if <140/90. One-time certificate for 3 months if 140-159/90-99.
160-179/100-109	Stage 2	One-time certificate for 3 months.	1 year from date of exam if <140/90.
≥ 180/110	Stage 3	Disqualified	6 months from date of exam if <140/90, then every 6 months if <140/90.

Driver qualified if <140/90.

391.41(b)(7)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no established medical history or clinical diagnosis of a rheumatic, arthritic, orthopedic, muscular, neuromuscular or vascular disease which interferes with the ability to control and operate a commercial motor vehicle.

Certain diseases are known to have acute episodes of transient muscle weakness, poor muscular coordination (ataxia), abnormal sensations (**paresthesia**), decreased muscle tone (**hypotonia**), visual disturbances and pain which may be suddenly incapacitating. With each recurring episode, these symptoms may become more pronounced and remain for longer periods of time. Other diseases have more insidious onsets and display symptoms of muscle wasting (atrophy), swelling and **paresthesia** which may not suddenly incapacitate a person but may restrict his/her movements and eventually interfere with the ability to safely operate a motor vehicle. In many instances these diseases are degenerative in nature or may result in deterioration of the involved area.

Once the individual has been diagnosed as having a rheumatic, arthritic, orthopedic, muscular, neuromuscular or vascular disease, then he/she has an established history of that disease. The physician, when examining an individual, should consider the following:

- (1) The nature and severity of the individual's condition (such as sensory loss or loss of strength;
- (2) The degree of limitation present (such as range of motion;
- (3) The likelihood of progressive limitation (not always **present** initially but manifest itself over time;
- (4) The likelihood of sudden incapacitation.

If severe functional impairment exists, the driver does not qualify. In cases where more frequent monitoring is required, a certificate for a shorter period of time may be issued.

See Conference on Neurological Disorders and Commercial Drivers at:
<http://www.fmcsa.dot.gov/rulesregs/medreports.htm>

391.41(b)(8)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no established medical history or clinical diagnosis of epilepsy;

or

Any other condition which is likely to cause the loss of consciousness, or any loss of ability to control a commercial motor vehicle.

Epilepsy is a chronic functional disease characterized by seizures or episodes that occur without warning, resulting in loss of voluntary control which may lead to loss of consciousness and/or seizures. Therefore, the following drivers cannot be qualified:

- (1) a driver who has a medical history of epilepsy;
- (2) a driver who has a current clinical diagnosis of epilepsy; or
- (3) a driver who is taking **antiseizure** medication.

If an individual has had a sudden episode of a **nonepileptic** seizure or loss of consciousness of unknown cause which did not require **antiseizure** medication, the decision as to whether that person's condition will likely cause the loss of consciousness or loss of ability to control a commercial motor vehicle is made on an individual basis by the medical examiner in consultation with the treating physician. Before certification is considered, it is suggested that a 6-month waiting period elapse from the time of the episode. Following the waiting period, it is suggested that the individual have a complete neurological examination. If the results of the examination are negative and **antiseizure** medication is not required, then the driver may be qualified.

In those individual cases where a driver had a seizure or an episode of loss of consciousness that resulted from a known medical condition (e.g., drug reaction, high temperature, acute infectious disease, dehydration, or acute metabolic disturbance), certification should be deferred until the driver has fully recovered from that condition, has no existing residual complications, and is not taking **antiseizure** medication.

Drivers with a history of epilepsy/seizures off **antiseizure** medication and seizure-free for 10 years may be qualified to operate a CMV in interstate commerce. Interstate drivers with a history of a single unprovoked seizure may be qualified to drive a CMV in interstate commerce if seizure-free and off **antiseizure** medication for a 5-year period or more.

See Conference on Neurological Disorders and Commercial Drivers at:
<http://www.fmcsa.dot.gov/rulesregs/medreports.htm>

391.41(b)(9)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no mental, nervous, organic, or functional disease or psychiatric disorder likely to interfere with the driver's ability to drive a commercial motor vehicle safely.

Emotional or adjustment problems contribute directly to an individual's level of memory, reasoning, attention, and judgment. These problems often underlie physical disorders. A variety of functional disorders can cause drowsiness, dizziness, confusion, weakness, or paralysis that may lead to **incoordination**, inattention, loss of functional control and susceptibility to crashes while driving. Physical fatigue, headache, impaired coordination, recurring physical

ailments, and chronic "nagging" pain may be present to such a degree that certification for commercial driving is inadvisable. Somatic and psychosomatic complaints should be thoroughly examined when determining an individual's overall fitness to drive. Disorders of a periodically incapacitating nature, even in the early stages of development, may warrant disqualification.

Many bus and truck drivers have documented that "nervous trouble" related to neurotic, personality, emotional or adjustment problems is responsible for a significant fraction of their preventable crashes. The degree to which an individual is able to appreciate, evaluate and adequately respond to environmental strain and emotional stress is critical when assessing an individual's mental alertness and flexibility to cope with the stresses of commercial motor vehicle driving.

When examining the driver, it should be kept in mind that individuals who live under chronic emotional upsets may have deeply ingrained maladaptive or erratic behavior patterns. Excessively antagonistic, instinctive, impulsive, openly aggressive, paranoid or severely depressed behavior greatly interfere with the driver's ability to drive safely. Those individuals who are highly susceptible to frequent states of emotional instability (schizophrenia, affective psychoses, paranoia, anxiety or depressive neurosis) may warrant disqualification.

Careful consideration should be given to the side effects and interactions of medications in the overall qualification determination. See Psychiatric Conference Report for specific recommendations on the use of these medications and potential hazards for driving.

See Conference on Psychiatric Disorders and Commercial Drivers at:
<http://www.fmcsa.dot.gov/rulesregs/medreports.htm>

391.41 (b)(10)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has a distant visual acuity of at least 20/40 (Snellen) in each eye with or without corrective lenses, or visual acuity separately corrected to 20/40 (Snellen) or better with corrective lenses;

and

distant binocular acuity of at least 20/40 (Snellen) in both eyes with or without corrective lenses;

and

field of vision of at least 70 degrees in the horizontal meridian in each eye;

and

the ability to recognize the colors of traffic control signals and devices showing standard; red, green, and amber.

The term "ability to recognize the colors of" is interpreted to mean if a person can recognize and distinguish among traffic control signals and devices showing standard red, green, and amber, he or she meets the minimum standard, even though he or she may have some type of color perception deficiency. If certain color perception tests are administered (such as Ishihara, Pseudoisochromatic, Yarn, etc.), and doubtful findings are discovered, a controlled test using signal red, green, and amber may be employed to determine the driver's ability to recognize these colors.

Contact lenses are permissible if there is sufficient evidence to indicate that the driver has good tolerance and is well adapted to their use. Use of a contact lens in one eye for distant visual acuity and another lens in the other eye for near vision is not acceptable, nor are telescopic lenses acceptable for driving commercial motor vehicles.

If an individual meets the criteria by the use of glasses or contact lenses, the following statement shall appear on the

Medical Examiner's Certificate: "Qualified only if wearing corrective lenses." CMV drivers who do not meet the Federal vision standards may call (202) 366-1790.

See Visual Disorders and Commercial Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>

391.41(b)(11)

A person is physically qualified to drive a commercial vehicle if that person:

First perceives a forced whispered voice in the better ear at not less than five feet with or without the use of a hearing aid.

or

If tested by use of an audiometric device, does not have an average hearing loss in the better ear greater than 40 decibels at 500 Hz, 1,000 Hz and 2,000 Hz with or without a hearing aid when the audiometric device is calibrated to the American National Standard, [formerly American Standard Association (ASA)] Z24.5-1951.

Since the prescribed standard under the FMCSRs is the American National Standards Institute (ANSI), it may be necessary to convert the audiometric results from the International Standards Organization (ISO) standard to the ANSI standard. Instructions are included on the Medical Examination Report form.

If an individual meets the criteria by using a hearing aid, the driver must wear that hearing aid and have it in operation at all times while driving. Also, the driver must be in possession of a spare power source for the hearing aid.

For the whispered voice test, the individual should be stationed at least 5 feet from the examiner with the ear being tested turned toward the examiner. The other ear is covered. Using the breath which remains after a normal expiration, the examiner whispers words or random numbers such as 66, 18, 23, etc. The examiner should not use only sibilants (s-sounding test materials). If the individual fails the whispered voice test, the audiometric test should be administered.

If an individual meets the criteria by the use of a hearing aid, the following statement must appear on the Medical Examiner's Certificate "Qualified only when wearing a hearing aid."

See Hearing Disorders and Commercial Motor Vehicle Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>

391.41(b)(12)

A person is physically qualified to drive a commercial vehicle if that person:

Does not use a controlled substance **identified** in 21 CFR 1308.11, Schedule I, an amphetamine, a narcotic, or any other habit-forming drug.

Exception: A driver may use such a substance or drug, if the substance or drug is prescribed by a licensed medical practitioner who is familiar with the driver's medical history and assigned duties; and has advised the driver that the prescribed substance or drug will not adversely affect the driver's ability to safely operate a commercial motor vehicle.

This exception does not apply to the use of methadone.

The intent of the medical certification process is to medically evaluate a driver to ensure that the driver has no medical condition which interferes with the safe performance of driving tasks on a public road. If a driver uses a Schedule I drug or other substance, amphetamine, a narcotic, or any other habit-forming drug, it may be cause for the driver to be found medically unqualified. Motor carriers are encouraged to obtain a practitioner's written statement about the effects on transportation safety of the use of a particular drug.

A test for controlled substances is not required as part of this biennial certification process. The FMCSA or the driver's

employer should be contacted directly for information on controlled substances and alcohol testing under Part 382 of the FMCSRs.

The term "uses" is designed to encompass instances of prohibited drug use determined by a physician through established medical means. This may or may not involve body fluid testing. If body fluid testing takes place, positive test results should be confirmed by a second test of greater specificity. The term "habit forming" is intended to include any drug or medication generally recognized as capable of becoming habitual, and which may impair the user's ability to operate a commercial motor vehicle safely.

The driver is medically unqualified for the duration of the prohibited drug(s) use and until a second examination shows the driver is free from the prohibited drug(s) use. Recertification may involve a substance abuse evaluation, the successful completion of a drug rehabilitation program, and a negative drug test result. Additionally, given that the certification period is normally 2 years, the examiner has the option to certify for a period of less than 2 years if this examiner determines more frequent monitoring is required.

See Conference on Neurological Disorders and Commercial Drivers and Conference on Psychiatric Disorders and Commercial Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>.

391.41(b)(13)

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no current clinical diagnosis of alcoholism.

The term "current clinical diagnosis" is specifically designed to encompass a current alcoholic illness or those instances where the individual's physical condition has not fully stabilized, regardless of the time element. If an individual shows signs of having an alcohol-use problem, he or she should be referred to a specialist. After counseling and/or treatment, he or she may be considered for certification.