SDAFP DOT MEDICAL EXAMINER TRAINING

Supplemental Information

Medical Exam Form and Supplement

Cardiovascular Recommendations

Diabetes Exemption

Insulin Exemption Supplement

Medical Examination Report
FOR COMMERCIAL DRIVER FITNESS DETERMINATION

649-F (6045)

1. DRIVER'S INFORMATION

Driver completes this section

Driver's Name (Last, First, Middle)	Social Security No.	Birthdate M / D / Y	Age	Sex ☐ M ☐ F	New Certification ☐ Recertification ☐ Follow-up ☐	Date of Exam

Address	City, State, Zip Code	Work Tel: ( ) Home Tel: ( )	Driver License No.	License Class ☐ A ☐ B ☐ C ☐ D ☐ Other	State of Issue

2. HEALTH HISTORY

Driver completes this section, but medical examiner is encouraged to discuss with driver.

Yes	No	
☐	☐	Any illness or injury in the last 5 years?
☐	☐	Head/Brain injuries, disorders or illnesses
☐	☐	Seizures, epilepsy ☐ medication_____
☐	☐	Eye disorders or impaired vision (except corrective lenses)
☐	☐	Ear disorders, loss of hearing or balance
☐	☐	Heart disease or heart attack; other cardiovascular condition ☐ medication_____
☐	☐	Heart surgery (valve replacement/bypass, angioplasty, pacemaker) ☐ medication_____
☐	☐	High blood pressure
☐	☐	Muscular disease
☐	☐	Shortness of breath

Yes	No	
☐	☐	Lung disease, emphysema, asthma, chronic bronchitis
☐	☐	Kidney disease, dialysis
☐	☐	Liver disease
☐	☐	Digestive problems
☐	☐	Diabetes or elevated blood sugar controlled by: ☐ diet ☐ pills ☐ insulin
☐	☐	Nervous or psychiatric disorders, e.g., severe depression medication_____
☐	☐	Loss of, or altered consciousness

Yes	No	
☐	☐	Fainting, dizziness
☐	☐	Sleep disorders, pauses in breathing while asleep, daytime sleepiness, loud snoring
☐	☐	Stroke or paralysis
☐	☐	Missing or impaired hand, arm, foot, leg, finger, toe
☐	☐	Spinal injury or disease
☐	☐	Chronic low back pain
☐	☐	Regular, frequent alcohol use
☐	☐	Narcotic or habit forming drug use

For any YES answer, indicate onset date, diagnosis, treating physician's name and address, and any current limitation. List all medications (including over-the-counter medications) used regularly or recently.

_____

_____

_____

I certify that the above information is complete and true. I understand that inaccurate, false or missing information may invalidate the examination and my Medical Examiner's Certificate.

Driver's Signature_____ Date_____

Medical Examiner's Comments on Health History (The medical examiner must review and discuss with the driver any "yes" answers and potential hazards of medications, including over-the-counter medications, while driving. This discussion must be documented below.)

_____

_____

_____

_____

TESTING (Medical Examiner completes Section 3 through 7) Name: Last, First, Middle,

3. VISION

Standard: At least 20/40 acuity (Snellen) in each eye with or without correction. At least 70 degrees peripheral in horizontal meridian measured in each eye. The use of corrective lenses should be noted on the Medical Examiner's Certificate.

INSTRUCTIONS: When other than the Snellen chart is used, give test results in Snellen-comparable values. In recording distance vision, use 20 feet as normal. Report visual acuity as a ratio with 20 as numerator and the smallest type read at 20 feet as denominator. If the applicant wears corrective lenses, these should be worn while visual acuity is being tested. If the driver habitually wears contact lenses, or intends to do so while driving, sufficient evidence of good tolerance and adaptation to their use must be obvious. ***Monocular drivers are not qualified.***

Numerical readings must be provided.

ACUITY	UNCORRECTED	CORRECTED	HORIZONTAL FIELD OF VISION
Right Eye	20/	20/	Right Eye ○
Left Eye	20/	20/	Left Eye ○
Both Eyes	20/	20/	

Applicant can recognize and distinguish among traffic control signals and devices showing standard red, green, and amber colors? ☐ Yes ☐ No

Applicant meets visual acuity requirement only when wearing:
☐ Corrective Lenses

Monocular Vision: ☐ Yes ☐ No

Complete next line only if vision testing is done by an opthalmologist or optometrist

Date of Examination | Name of Ophthalmologist or Optometrist (print) | Tel. No. | License No./ State of Issue | Signature

4. HEARING

Standard: a) Must first perceive forced whispered voice ≥ 5 ft., with or without hearing aid, or b) average hearing loss in better ear ≤ 40 dB
☐ Check if hearing aid used for tests. ☐ Check if hearing aid required to meet standard.

INSTRUCTIONS: To convert audiometric test results from ISO to ANSI, -14 dB from ISO for 500Hz, -10dB for 1,000 Hz, -8.5 dB for 2000 Hz. To average, add the readings for 3 frequencies tested and divide by 3.

Numerical readings must be recorded.

	Right ear	Left Ear
a) Record distance from individual at which forced whispered voice can first be heard.	\ Feet	\ Feet

b) If audiometer is used, record hearing loss in decibels. (acc. to ANSI Z24.5-1951)	Right Ear			Left Ear		
	500 Hz	1000 Hz	2000 Hz	500 Hz	1000 Hz	2000 Hz
	Average:			Average:		

5. BLOOD PRESSURE/ PULSE RATE

Numerical readings must be recorded. Medical Examiner should take at least two readings to confirm BP.

Blood Pressure	Systolic	Diastolic

Driver qualified if ≤140/90.

Pulse Rate: ☐ Regular ☐ Irregular

Record Pulse Rate: _____

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 141-159/91-99.
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	6 months from date of exam if ≤140/90	6 months if ≤ 140/90

6. LABORATORY AND OTHER TEST FINDINGS

Numerical readings must be recorded.

URINE SPECIMEN	SP. GR.	PROTEIN	BLOOD	SUGAR

Urinalysis is required. Protein, blood or sugar in the urine may be an indication for further testing to rule out any underlying medical problem.

Other Testing (Describe and record) _____

7. PHYSICAL EXAMINATION

Height:_____ (in.) Weight:_____ (lbs.) Name: Last, First, Middle,

The presence of a certain condition may not necessarily disqualify a driver, particularly if the condition is controlled adequately, is not likely to worsen or is readily amenable to treatment. Even if a condition does not disqualify a driver, the medical examiner may consider deferring the driver temporarily. Also, the driver should be advised to take the necessary steps to correct the condition as soon as possible particularly if the condition, if neglected, could result in more serious illness that might affect driving.

Check YES if there are any abnormalities. Check NO if the body system is normal. Discuss any YES answers in detail in the space below, and indicate whether it would affect the driver's ability to operate a commercial motor vehicle safely. Enter applicable item number before each comment. If organic disease is present, note that it has been compensated for. See *Instructions to the Medical Examiner* for guidance.

BODY SYSTEM	CHECK FOR:	YES*	NO
1. General Appearance	Marked overweight, tremor, signs of alcoholism, problem drinking, or drug abuse.		
2. Eyes	Pupillary equality, reaction to light, accommodation, ocular motility, ocular muscle imbalance, extraocular movement, nystagmus, exophthalmos. Ask about retinopathy, cataracts, aphakia, glaucoma, macular degeneration and refer to a specialist if appropriate.		
3. Ears	Scarring of tympanic membrane, occlusion of external canal, perforated eardrums.		
4. Mouth and Throat	Irremediable deformities likely to interfere with breathing or swallowing.		
5. Heart	Murmurs, extra sounds, enlarged heart, pacemaker, implantable defibrillator.		
6. Lungs and chest, not including breast examination	Abnormal chest wall expansion, abnormal respiratory rate, abnormal breath sounds including wheezes or alveolar rales, impaired respiratory function, cyanosis. Abnormal findings on physical exam may require further testing such as pulmonary tests and/ or xray of chest.		
7. Abdomen and Viscera	Enlarged liver, enlarged spleen, masses, bruits, hernia, significant abdominal wall muscle weakness.		
8. Vascular System	Abnormal pulse and amplitude, cartoid or arterial bruits, varicose veins.		
9. Genito-urinary System	Hernias.		
10. Extremities- Limb impaired. Driver may be subject to SPE certificate if otherwise qualified.	Loss or impairment of leg, foot, toe, arm, hand, finger, Perceptible limp, deformities, atrophy, weakness, paralysis, clubbing, edema, hypotonia. Insufficicent grasp and prehension in upper limb to maintain steering wheel grip. Insufficient mobility and strength in lower limb to operate pedals properly.		
11. Spine, other musculoskeletal	Previous surgery, deformities, limitation of motion, tenderness.		
12. Neurological	Impaired equilibrium, coordination or speech pattern; asymmetric deep tendon reflexes, sensory or positional abnormalities, abnormal patellar and Babinki's reflexes, ataxia.		

***COMMENTS:** _____

Note certification status here. See Instructions to the Medical Examiner for guidance.

- ☐ Meets standards in 49 CFR 391.41; qualifies for 2 year certificate
- ☐ Does not meet standards
- ☐ Meets standards, but periodic monitoring required due to _____.
  Driver qualified only for: ☐3 months ☐6 months ☐1 year ☐ Other

Temporarily disqualified due to (condition or medication):_____

Return to medical examiner's office for follow up on _____

- ☐ Wearing corrective lense
- ☐ Wearing hearing aid
- ☐ Accompanied by a _____waiver/ exemption. Driver must present exemption at time of certification.
- ☐ Skill Performance Evaluation (SPE) Certificate
- ☐ Driving within an exempt intracity zone (See 49 CFR 391.62)
- ☐ Qualified by operation of 49 CFR 391.64

Medical Examiner's signature _____

Medical Examiner's name _____

Address _____

Telephone Number _____

If meets standards, complete a Medical Examiner's Certificate as stated in 49 CFR 391.43(h). (Driver must carry certificate when operating a commercial vehicle.)

49 CFR 391.41 Physical Qualifications for Drivers

THE DRIVER'S ROLE

Responsibilities, work schedules, physical and emotional demands, and lifestyles among commercial drivers vary by the type of driving that they do. Some of the main types of drivers include the following: turn around or short relay (drivers return to their home base each evening); long relay (drivers drive 9-11 hours and then have at least a 10-hour off-duty period), straight through haul (cross country drivers); and team drivers (drivers share the driving by alternating their 5-hour driving periods and 5-hour rest periods.)

The following factors may be involved in a driver's performance of duties: abrupt schedule changes and rotating work schedules, which may result in irregular sleep patterns and a driver beginning a trip in a fatigued condition; long hours; extended time away from family and friends, which may result in lack of social support; tight pickup and delivery schedules, with irregularity in work, rest, and eating patterns, adverse road, weather and traffic conditions, which may cause delays and lead to hurriedly loading or unloading cargo in order to compensate for the lost time; and environmental conditions such as excessive vibration, noise, and extremes in temperature. Transporting passengers or hazardous materials may add to the demands on the commercial driver.

There may be duties in addition to the driving task for which a driver is responsible and needs to be fit. Some of these responsibilities are: coupling and uncoupling trailer(s) from the tractor, loading and unloading trailer(s) (sometimes a driver may lift a heavy load or unload as much as 50,000 lbs. of freight after sitting for a long period of time without any stretching period); inspecting the operating condition of tractor and/or trailer(s) before, during and after delivery of cargo; lifting, installing, and removing heavy tire chains; and, lifting heavy tarpaulins to cover open top trailers. The above tasks demand agility, the ability to bend and stoop, the ability to maintain a crouching position to inspect the underside of the vehicle, frequent entering and exiting of the cab, and the ability to climb ladders on the tractor and/or trailer(s).

In addition, a driver must have the perceptual skills to monitor a sometimes complex driving situation, the judgment skills to make quick decisions, when necessary, and the manipulative skills to control an oversize steering wheel, shift gears using a manual transmission, and maneuver a vehicle in crowded areas.

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§391.41 PHYSICAL QUALIFICATIONS FOR DRIVERS

(a) A person shall not drive a commercial motor vehicle unless he is physically qualified to do so and, except as provided in §391.67, has on his person the original, or a photographic copy, of a medical examiner's certificate that he is physically qualified to drive a commercial motor vehicle.

(b) A person is physically qualified to drive a motor vehicle if that person:

(1) Has no loss of a foot, a leg, a hand, or an arm, or has been granted a Skill Performance Evaluation (SPE) Certificate (formerly Limb Waiver Program) pursuant to §391.49.

(2) Has no impairment of: (i) A hand or finger which interferes with prehension or power grasping; or (ii) An arm, foot, or leg which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or any other significant limb defect or limitation which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or has been granted a SPE Certificate pursuant to §391.49.

(3) Has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control;

(4) 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.

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

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

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

(8) Has no established medical history or clinical diagnosis of epilepsy or any other condition which is likely to cause loss of consciousness or any loss of ability to control a commercial motor vehicle;

(9) Has no mental, nervous, organic, or functional disease or psychiatric disorder likely to interfere with his ability to drive a commercial motor vehicle safely;

(10) Has distant visual acuity of at least 20/40 (Snellen) in each eye without corrective lenses or visual acuity separately corrected to 20/40 (Snellen) or better with corrective lenses, distant binocular acuity of at least 20/40 (Snellen) in both eyes with or without corrective lenses, field of vision of at least 70degrees in the horizontal meridian in each eye, and the ability to recognize the colors of traffic signals and devices showing standard red, green and amber;

(11) First perceives a forced whispered voice in the better ear not less than 5 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 device when the audiometric device is calibrated to the American National Standard (formerly ASA Standard) Z24.5-1951;

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

(ii) Does not use any non-Schedule I drug or substance that is identified in the other Schedules in 21 part 1308 except when the use is prescribed by a licensed medical practitioner, as defined in § 382.107, who is familiar with the driver’s medical history and has advised the driver that the substance will not adversely affect the driver’s ability to safely operate a commercial motor vehicle.

(13) Has no current clinical diagnosis of alcoholism.

INSTRUCTIONS TO THE MEDICAL EXAMINER

General Information

The purpose of this examination is to determine a driver's physical qualification to operate a commercial motor vehicle (CMV) in interstate commerce according to the requirements in 49 CFR 391.41-49. Therefore, the medical examiner must be knowledgeable of these requirements and guidelines developed by the FMCSA to assist the medical examiner in making the qualification determination. The medical examiner should be familiar with the driver's responsibilities and work environment and is referred to the section on the form, **The Driver's Role**.

In addition to reviewing the **Health History** section with the driver and conducting the physical examination, the medical examiner should discuss common prescriptions and over-the-counter medications relative to the side effects and hazards of these medications while driving. Educate the driver to read warning labels on all medications. History of certain conditions may be cause for rejection, particularly if required by regulation, or may indicate the need for additional laboratory tests or more stringent examination perhaps by a medical specialist. These decisions are usually made by the medical examiner in light of the driver's job responsibilities, work schedule and potential for the conditions to render the driver unsafe.

Medical conditions should be recorded even if they are not cause for denial, and they should be discussed with the driver to encourage appropriate remedial care. This advice is especially needed when a condition, if neglected, could develop into a serious illness that could affect driving.

If the medical examiner determines that the driver is fit to drive and is also able to perform non-driving responsibilities as may be required, the medical examiner signs the medical certificate which the driver must carry with his/her license. The certificate must be dated. **Under current regulations, the certificate is valid for two years, unless the driver has a medical condition that does not prohibit driving but does require more frequent monitoring**. In such situations, the medical certificate should be issued for a shorter length of time. The physical examination should be done carefully and at least as complete as is indicated by the attached form. Contact the FMCSA at (202) 366-4001 for further information (a vision exemption, qualifying drivers under 49 CFR 391.64, etc.).

Interpretation of Medical Standards

Since the issuance of the regulations for physical qualifications of commercial drivers, the Federal Motor Carrier Safety Administration (FMCSA) has published recommendations called Advisory Criteria to help medical examiners in determining whether a driver meets the physical qualifications for commercial driving. These recommendations have been condensed to provide information to medical examiners that (1) is directly relevant to the physical examination and (2) is not already included in the medical examination form. The specific regulation is printed in italics and it's reference by section is highlighted.

Federal Motor Carrier Safety Regulations
-Advisory Criteria-

Loss of Limb:
§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 an arm, or has been granted a Skill Performance Evaluation (SPE) Certificate pursuant to Section 391.49.

Limb Impairment:
§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; or (ii) An arm, foot, or leg which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or (iii) Any other significant limb defect or limitation which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or (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 Skill Performance Evaluation 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 curent SPE certificate for his/her physical disability.

Diabetes
§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 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. CMV drivers who do not meet the Federal diabetes standard may call (703) 356-8035 for an application for a diabetes exemption.
(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)

Cardiovascular Condition
§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: "*a clinical diagnosis of*" (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 FMCSRs 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 before a driver is certified that he or she have a normal resting and stress electrocardiogram (ECG), no residual complications and 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. The FMCSA should be contacted at (202) 366-1790 for additional recommendations regarding the physical qualification of drivers on coumadin.
(See Cardiovasular Advisory Panel Guidelines for the Medical examination of Commercial Motor Vehicle Drivers at: http://www.fmcsa.dot.gov/rulesregs/medreports.htm)

Respiratory Dysfunction
§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 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

Hypertension
§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 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 regulatory 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 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 at or less than 140/90. If less than 160/100, certification may be extended one time for 3 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 or equal to 140/90. A blood pressure in this range is an absolute indication for anti-hypertensive drug therapy. Provided treatment is well tolerated and the driver demonstrates a BP value of 140/90 or less, he or she may be certified for one year from 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 140/90 or less and treatment is well tolerated. The driver may be certified for 6 months and biannually (every 6 months) thereafter if at recheck BP is 140/90 or less.

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

Rheumatic, Arthritic, Orthopedic, Muscular, Neuromuscular or Vascular Disease §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 rheumatic, arthritic, orthopedic, muscular, neuromuscular or vascular disease which interferes with the ability to control and operate a commercial motor vehicle safely.

Certain diseases are known to have acute episodes of transient muscle weakness, poor muscular coordination (ataxia), abnormal sensations (paresthesia), decreased muscular 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 may manifest itself over time); and (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)

Epilepsy
§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 loss of consciousness or any loss of ability to control a 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 loss of consciousness or loss of ability to control a 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 has 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 and has no existing residual complications, and not taking antiseizure medication.

Drivers with a history of epilepsy/seizures off antiseizure medication **and** seizure-free for 10 years may be qualified to drive 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)

Mental Disorders
§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 ability to drive a 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 accidents 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, or emotional or adjustment problems is responsible for a significant fraction of their preventable accidents. 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 neuroses) 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 medications and potential hazards for driving.
(See Conference on Psychiatric Disorders and Commercial Drivers at:
http://www.fmcsa.dot.gov/rulesregs/medreports.htm)

Vision
§391.41(b)(10)
A person is physically qualified to drive a commercial motor vehicle if that person:
Has 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, distant binocular acuity of at least 20/40 (Snellen) in both eyes with or without corrective lenses, field of vision of at least 70 degrees in the horizontal meridian in each eye, and the ability to recognize the colors of traffic 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) 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 distance visual acuity and another lens in the other eye for near vision is not acceptable, nor telescopic lenses acceptable for the driving of 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 standard may call (703) 356-8035 for an application for a vision exemption.
(See Visual Disorders and Commercial Drivers at:
http://www.fmcsa.dot.gov/rulesregs/medreports.htm)

Hearing
§391.41(b)(11)
A person is physically qualified to drive a commercial motor vehicle if that person:
First perceives a forced whispered voice in the better ear at not less than 5 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 American National Standard (formerly ADA Standard) Z24.5-1951.

Since the prescribed standard under the FMCSRs is the American Standards Association (ANSI), it may be necessary to convert the audiometric results from the 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 materials). The opposite ear should be tested in the same manner. 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)

Drug Use
§391.41(b)(12)

A person is physically qualified to drive a commercial motor vehicle if that person does not use any drug or substance identified in 21 CFR 1308.11, an amphetamine, a narcotic, or other habit-forming drug. A driver may use a non-Schedule I drug or substance that is identified in the other Schedules in 21 part 1308 if the substance or drug is prescribed by a licensed medical practitioner who: (A) is familiar with the driver's medical history, and assigned duties; and (B) 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 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 an amphetamine, a narcotic or any other habit-forming drug, it may be cause for the driver to be found medically unqualified. If a driver uses a Schedule I drug or substance, it will 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 two 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)

Alcoholism
§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 of" 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.

Driver Information

A complete physical examination is required for new certification and recertification. Verify that the date of the examination is accurate because this is used to calculate the expiration date.

Any individual can request and be given a Federal Motor Carrier Safety Administration physical examination. A person must be at least 21 years of age to operate a commercial motor vehicle (CMV) in interstate commerce. A person operating a CMV in interstate commerce must be medically examined, carry an original or copy of the medical examiner's certificate while driving, and be currently licensed (commercial or noncommercial).

Health History

The health history is an essential part of the driver physical examination. Are there limitations resulting from a current or past medical condition? Are there symptoms that indicate additional testing or evaluation is needed? Discuss the safety implications of effects and/or side effects of prescription and over-the-counter medications, supplements, and herbs.

Ensure that the driver signs and dates the Medical Examination Report form. By signing the form, the driver certifies that the information and history are "complete and true." The driver signature also acknowledges that providing inaccurate or false information or omitting information could invalidate the medical examiner's certificate. A civil penalty may be levied under 49 U.S.C. 521(b)(2)(b) against the driver who provides a false or intentionally incomplete medical history. Everything above the driver signature should be completed by the driver.

As a medical examiner, you must clarify yes answers. Document the significant findings of the health history in the comments section below the signature of the driver.

Follow the links in the table for more information on health history specific to the topic.

Vision (b)(10)	**Musculoskeletal (b)(1)(2)(7)**
Hearing (b)(11)	**Diabetes Mellitus (b)(3)**
High Blood Pressure/Hypertension (b)(6)	**Other Diseases (b)(9)**
Psychological Disorders (b)(9)	**Cardiovascular (b)(4)**
Respiratory (b)(5)	**Drug Abuse and Alcoholism (b)(12)(13)**
Neurological (b)(7)(8)(9)	**Medications/Drug Use (b)(12)**

Medical Examination Report Form - Page 2

The results of the four required tests: vision, hearing, blood pressure/pulse, and urinalysis are recorded on the second page of the Medical Examination Report form. Abnormal test results may disqualify a driver or indicate that additional evaluation and/or testing are needed.

Drug and alcohol testing are not required for the driver physical examination unless findings indicate they are needed to determine medical fitness for duty.

Vision

The medical examiner or a licensed ophthalmologist or optometrist can examine and certify vision test results.

Visual acuity is measured in each eye individually and both eyes together—

- Distant visual acuity of at least 20/40 (Snellen) in each eye, with or without corrective lenses.
- Distant binocular visual acuity of at least 20/40 (Snellen) in both eyes, with or without corrective lenses.
- Field of vision of at least 70° in the horizontal meridian in each eye.

Color vision must be sufficient to recognize and distinguish traffic signals and devices showing the standard red, amber, and green colors.

When corrective lenses are used to meet vision qualification requirements, the corrective lenses must be used while driving.

Follow the links for more information regarding vision tests.

- Snellen Test.
- Protocol for screening the visual field.

A driver with monocular vision, who is otherwise medically qualified, may apply for a Federal vision exemption. The driver with a Federal vision exemption may be certified for up to 1 year. Follow the Federal Vision Exemption Program link for more information.

You may certify the driver who meets vision qualification requirements, with or without the use of corrective lenses, for up to 2 years. For more information on vision qualification requirements, examination, and certification determination, follow the link to Vision (b)(10).

Hearing

To qualify, the driver must meet the hearing requirement of either the forced whisper test or the audiometric test in one ear.

The requirement for the:

- Forced whisper test is to **first perceive a forced whispered voice, in one ear, at not less than five feet**.
- Audiometric test is to **have an average hearing loss, in one ear, less than or equal to 40 decibels (dB).**

The driver who wears a hearing aid to meet the hearing qualification requirement must wear a hearing aid while driving.

Follow the links for more information regarding hearing tests.

- Forced whisper test.
- Audiometric test.

For more information on hearing qualification requirements, examination, and certification determination follow the link to Hearing (b)(11).

Blood Pressure/Pulse

Record pulse rate and rhythm on the Medical Examination Report Form.

The cardiovascular recommendations for certification using the JNC-6 stages of hypertension are summarized in the Medical Examination Report form table. Blood pressure (BP) readings are defined as:

- 140-159/90-99 = Stage 1 hypertension.
- 160-179/100-109 = Stage 2 hypertension.
- Greater than or equal to 180/110 = Stage 3 hypertension.

The driver with hypertension and BP less than or equal to 139/89 may be certified for up to 1 year. Confirm an elevated BP by a second elevated BP later in the examination. The driver with stage 1 or stage 2 hypertension may be certified in accordance with the cardiovascular recommendations, which take into consideration known hypertension history. Disqualify a driver with stage 3 hypertension.

Urinalysis

Record the test results of the required dipstick urinalysis (UA) in the **Laboratory and Other Medical Test Findings** section of the Medical Examination Report form. The dipstick urinalysis must measure specific gravity and test for protein, blood, and glucose in the urine. Positive test results may indicate that additional evaluation is needed.

Attach copies of additional test results and interpretation reports to the Medical Examination Report form

Medical Examination Report Form - Page 3

Record the physical examination and certification status on the third page of the Medical Examination Report form.

Physical Examination

The physical examination should be as thorough as described in the Medical Examination Report form, at a minimum. Note any abnormal finding, including the safety implication, even if not disqualifying. Inform the driver of any abnormal findings and as needed advise the driver to obtain follow-up evaluation.

Physical examination may indicate the need for additional evaluation and/or tests. Specialists, such as cardiologists and endocrinologists, may perform additional medical evaluation, but it is the medical examiner who decides if the driver is medically qualified to drive. Document the certification decision, including the rationale for any decision that does not concur with the recommendations.

Follow the links in the table for more information on the physical examination requirements.

Vision (b)(10)	**Musculoskeletal (b)(1)(2)(7)**
Hearing (b)(11)	**Diabetes Mellitus (b)(3)**
High Blood Pressure/Hypertension (b)(6)	**Other Diseases (b)(9)**
Psychological Disorders	**Cardiovascular (b)(4)**
Respiratory (b)(5)	**Drug Abuse and Alcoholism (b)(12)(13)**
Neurological (b)(7)(8)(9)	**Medications/Drug Use (b)(12)**

Certification and Documentation

Certification Status: Document the certification decision in the space provided for certification status. There are two possible outcomes: the driver is certified and issued a medical examiner's certificate or the driver is disqualified and is not issued a medical examiner's certificate.

- **Certify the driver**
  - **The driver meets all the standards** — The maximum length of time a driver can be medically certified is 2 years. The driver who must wear corrective lenses, a hearing aid, or have a Skill Performance Evaluation certificate may be certified for up to 2 years when there are no other conditions that require periodic monitoring.
  - **The driver meets the standards but has a condition that requires frequent monitoring (and certification)** — Certify for less than 2 years as needed to monitor continued medical fitness for duty. Federal exemptions and some Federal Motor Carrier Safety Administration guidelines specify annual medical examinations.
- **Disqualify the driver**
  - **The driver does not meet the standards —** Do not issue a medical examiner's certificate.
  - Discuss the disqualification decision with the driver, including what the driver can do to meet the Federal qualification requirements for commercial drivers.

Certification and recertification occur only when the medical examiner determines that the driver is medically fit for duty in accordance with Federal qualification requirements for commercial drivers.

Medical Examiner's Certificate

Provide the medical examiner's certificate to the qualified driver. Ensure that the date entered is the date of the physical examination. The expiration date should be consistent with the Medical Examination Report form certification status and cannot exceed 2 years from the date of the examination. The driver must sign the medical examiner's certificate. The certificate expires at midnight on the date of expiration. There is no grace period.

The driver must carry a valid medical examiner's certificate when operating a commercial vehicle. The motor carrier is also required to maintain a copy of the medical examiner's certificate.

The certificate can be the original or a photocopy, and can be reduced in size (usually wallet-sized). Lamination is prohibited in some States.

49 CFR 391.43 REGULATION AMENDMENT 73 FR 73127, Dec. 1, 2008

There are now two paragraphs in 49 CFR 391.43(g).

(g)(1) If the medical examiner finds that the person examined is physically qualified to operate a commercial motor vehicle in accordance with §391.41(b), the medical examiner should complete a certificate in the form prescribed in paragraph (h) of this section and furnish the original to the person who was examined. The examiner may provide a copy to a prospective or current employing motor carrier who requests it.

(g)(2) For all drivers examined, the medical examiner should retain a copy of the Medical Examination Report at least 3 years from the date of the examination. If the driver was certified as physically qualified, then the medical examiner should also retain the medical certificate as well for at least 3 years from the date the certificate was issued.

Cardiovascular Recommendation Tables

Current as of:
February, 2009

The first publication of the Cardiovascular Recommendation Tables occurred in the October 2002, **Cardiovascular Advisory Panel Guidelines for the Medical Examination of Commercial Motor Vehicle Drivers,** FMCSA-MCP-02-002.
PDF Version - HTML Version

Effort has been made to ensure the accuracy of data conversion when creating these tables. Please Contact NRCME if you identify an issue.

Important Note: If you print the tables, you should periodically verify that the print file is current with the last update posted on the NRCME Web site at: http://nrcme.fmcsa.dot.gov/part_4_guide_ep.htm#lastup.

See the Cardiovascular Table Archives for descriptions of the updates. A log of changes made is posted on the NRCME Web site, on the Cardiovascular Table Archives Web page located at http://nrcme.fmcsa.dot.gov/cvs_tables_archive.htm.

Preface

The Federal Motor Carrier Safety Administration (FMCSA) has an ongoing process for reviewing all Federal medical standards and guidelines used to determine driver medical fitness for duty.

These tables will be updated when changes are made to FMCSA medical standards and guidelines. All proposed changes to the medical standards are subject to public notice-and-comment rulemaking.

As part of its review process, FMCSA considers medical evidence reports, medical expert panel (MEP) opinion, and Medical Review Board (MRB) recommendations. FMCSA also considers other factors such as feasibility and impact.

These tables do not include recommendations that have been submitted to FMCSA for consideration but not adopted by FMCSA. However, FMCSA posts copies of the medical evidence report executive summaries and MEP recommendations on the FMCSA Web page Reports - How Medical Conditions Impact Driving found at http://www.fmcsa.dot.gov/rules-regulations/topics/mep/mep-reports.htm.

Reports of MRB proceedings are posted on the MRB Web site at http://www.mrb.fmcsa.dot.gov/proceedings.htm, and the MRB public meeting schedule at http://www.mrb.fmcsa.dot.gov/meetings_scheduled.htm.

Medical examiners may submit questions or comments to the FMCSA Office of Medical Programs by sending an email to fmcsamedical@dot.gov.

Table of Contents

ANEURYSMS

2002 Cardiovascular Conference Report Recommendation Tables, Page 145

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Abdominal Aortic Aneurysm (AAA)	Evaluate for associated cardiovascular diseases.		
	Aneurysm <4.0 cm.	Yes, if asymptomatic.	Annual
	Aneurysm 4.0 to <5.0 cm. Ultrasound to identify change in size.	Yes if: Asymptomatic; Cleared by vascular specialist. No, if: Symptomatic; Surgery recommended by vascular specialist.	Annual Ultrasound for change in size.
		Yes if: At least 3 months after surgical repair; Cleared by cardiovascular specialist.	Annual
	Aneurysm >5.0 cm.	No. Yes if: At least 3 months after surgical repair; Cleared by cardiovascular specialist.	Annual
Thoracic Aneurysm	Evaluate for associated cardiovascular diseases.	No, if >3.5 cm. Yes if: At least 3 months after surgical repair; Cleared by cardiovascular specialist.	Annual
Aneurysms of Other Vessels	Assess for risk of rupture and for associated cardiovascular diseases.	No Yes if: At least 3 months after surgical repair; Cleared by cardiovascular specialist.	Annual

AORTIC CONGENITAL HEART DISEASE

2002 Cardiovascular Conference Report Recommendation Tables, Page 122

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Bicuspid Aortic Valve	May result in aortic stenosis or regurgitation (see section on Valvular Diseases), aortic root enlargement, aortic aneurysm formation and aortic rupture.	See section on Valvular Diseases. No if: Aortic transverse diameter >5.5 cm. Yes if: Surgical intervention successfully performed.	See section on Valvular Diseases. Annual
Subvalvular Aortic Stenosis	Mild = favorable. Has potential for progression. Moderate or severe = unfavorable.	Yes if: Aortic; No valvular abnormality or hypertrophic cardiomyopathy. No if: Symptomatic and mean pressure gradient >30 mm Hg. Yes if: At least 3 months after successful surgical resection when cleared by cardiologist knowledgeable in congenital heart disease.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease is required. Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease required, including echocardiogram.
Discrete Supravalvular Aortic Stenosis	Unfavorable prognosis due to associated coronary and aortic disorder.	No, unless surgery. Yes if: At least 3 months post-surgical intervention; Cleared by cardiologist knowledgeable in adult congenital heart disease.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease is recommended.

AORTIC CONGENITAL HEART DISEASE (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 123

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Marfan Syndrome	Cardiovascular disorders are the major cause of morbidity and mortality including risk of sudden death.	Yes if: No cardiovascular involvement. No if: Any aortic root enlargement; Moderate or more severe aortic regurgitation; > mild mitral regurgitation related to mitral valve prolapse; LV dysfunction with EF <40% and no associated valve disease.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease required including aortic root imaging and echocardiography.

AORTIC REGURGITATION

2002 Cardiovascular Conference Report Recommendation Tables, Page 79

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Mild Aortic Regurgitation		Yes, if asymptomatic.	Annual Echocardiogram every 2 to 3 years.
Moderate Aortic Regurgitation		Yes, if: Normal LV function; No or mild LV enlargement.	Annual Echocardiogram every 2 to 3 years.
Severe Aortic Regurgitation		Yes if: Asymptomatic; Normal LV function (EF = 50%); LV dilatation (LVEDD <60mm, LVESD <50mm). If LVEDD = 60mm or LVESD = 50mm. No if: Symptoms; Unable to complete Bruce protocol Stage II; Reduced EF <50%, LV dilatation LVEDD >70mm or LVESD >55mm. Yes if: Valve surgery and at least 3 months post surgery; Asymptomatic; Cleared by cardiologist.	Every 6 months Echocardiogram every 6 to 12 months. Every 4–6 months Echocardiogram every 4–6 months if no surgery performed. Annual

EF=Ejection fraction
LVESD=Left ventricular end-systolic dimension
LVEDD=Left ventricular end-diastolic dimension

AORTIC STENOSIS

2002 Cardiovascular Conference Report Recommendation Tables, Page 78

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Mild Aortic Stenosis (AVA >1.5 cm^2)	If symptoms are consistent with aortic stenosis but calculated valve area suggests mild aortic stenosis, the severity of the stenosis and an alternative explanation for symptoms needs to be reassessed.	Yes, if Asymptomatic.	Annual Echocardiogram every 5 years.
Moderate Aortic Stenosis (AVA ≥1.0-1.5 cm^2)		Yes, if: Asymptomatic; Yes if: At least 3 months after surgery. No if: Angina, heart failure, syncope; Atrial fibrillation; LV dysfunction with EF <50%; Thromboembolism.	Annual Echocardiogram every 1 to 2 years. Annual
Severe Aortic Stenosis (AVA <1.0 cm^2)		No, irrespective of symptoms or LV function. Yes, if at least 3 months after surgery.	 Annual

AVA = aortic valve area

ATRIAL SEPTAL DEFECTS

2002 Cardiovascular Conference Report Recommendation Tables, Page 124

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION RECERTIFICATION	
Atrial Septal Defect (ASD): Ostium Secundum	Small ASD = favorable.	Yes if: Asymptomatic.	Annual Evaluation by cardiologist knowledgeable in congenital heart disease including echocardiogram.
	Moderate to large ASD = unfavorable.	No if: Symptoms of dyspnea, palpitations or a paradoxical embolus; Pulmonary hypertension; Right-to-left shunt; Pulmonary to systemic flow ratio >1.5 to 1.	
		Yes if: At least 3 months after surgery or at least 4 weeks after device closure; Asymptomatic and clearance by cardiologist knowledgeable in adult congenital heart disease.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease every 2 years.

ATRIAL SEPTAL DEFECTS (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 125

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
ASD: Ostium Primum	Small ASD = favorable prognosis.	Yes if: Asymptomatic.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease required including echocardiogram.
	Moderate to large ASD = unfavorable prognosis.	No if: Symptoms of dyspnea, palpitations or a paradoxical embolus; Echo-Doppler demonstrates pulmonary artery pressure >50% systemic; Echo-Doppler demonstrates right-to-left shunt; Pulmonary to systemic flow ratio greater than 1.5 to 1; Heart block on an electrocardiogram; More than mild mitral valve regurgitation; Left ventricular outflow tract obstruction with a gradient >30 mm Hg.	
		Yes if: At least 3 months after surgical intervention if none of the above disqualifying criteria; No symptomatic arrhythmia and no significant residual shunt; Cleared by cardiologist knowledgeable in adult congenital heart disease.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease.

ATRIAL SEPTAL DEFECTS (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 126

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Sinus Venosus Atrial Septal Defect	Usually associated with anomalous pulmonary venous connection. Prognosis depends on size of atrial septal defect. Commonly associated with sinus node dysfunction, particularly after surgery.	Yes if: Small shunt and hemodynamically insignificant. No if: Symptoms of dyspnea, palpitations or a paradoxical embolus; Echo-Doppler examination demonstrating pulmonary artery pressure greater than 50% systemic; Echo-Doppler examination demonstrating a right-to-left shunt; Pulmonary to systemic flow ratio greater than 1.5 to 1; Heart block or sinus node dysfunction on an electrocardiogram. Yes if: At least 3 months after surgical intervention; Hemodynamics are favorable; Cleared by cardiologist knowledgeable in adult congenital heart disease.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease. Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease, including Holter Monitor.

BUNDLE BRANCH BLOCKS AND HEMIBLOCKS

2002 Cardiovascular Conference Report Recommendation Tables, Page 100

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Bundle Branch Block Axis Deviation	Progression of disease in the conduction system can lead to third degree heart block with total loss of electrical connection between the atria and ventricles causing syncope or sudden death.	Yes if: Asymptomatic. (Depends on risk from underlying heart disease.) Yes, if treated for symptomatic disease (see pacemaker); No disqualifying heart disease; Cleared by cardiologist. No, if symptomatic.	Every 2 years Annual

CARDIOMYOPATHIES AND CONGESTIVE HEART FAILURE (CHF)

2002 Cardiovascular Conference Report Recommendation Tables, Page 82

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Hypertrophic Cardiomyopathy		No.	
Idiopathic Dilated Cardiomyopathy and Congestive Heart Failure		No, if symptomatic CHF.	
		No if: Asymptomatic; Ventricular arrhythmias present; LVEF ≤50%.	
		No if: Asymptomatic; No ventricular arrhythmias; LVEF <40%.	
		Yes if: Asymptomatic; No ventricular arrhythmias; LVEF 40% to 50%.	Annual Requires annual cardiology evaluation including Echocardiography and Holter monitoring.
Restrictive Cardiomyopathy		No	

COMMERCIAL DRIVERS WITH KNOWN CORONARY HEART DISEASE (CHD)

2002 Cardiovascular Conference Report Recommendation Tables, Page 36

DIAGNOSIS	PHYSIOLOGIC/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Post Myocardial Infarction (MI)	Risk of recurrent major cardiac event highest within the first months post-MI. Drivers in a rehabilitation program can receive comprehensive secondary prevention therapy.	No if: Recurrent angina symptoms; Post-MI ejection fraction <40% (by echocardiogram or ventriculogram); Abnormal ETT demonstrated prior to planned work return; Ischemic changes on rest ECG; Poor tolerance to current cardiovascular medications. Yes if: At least 2 months post-MI; Cleared by cardiologist; No angina; Post-MI ejection fraction ≥40% (by echocardiogram or ventriculogram); Tolerance to current cardiovascular medications.	Annual Biennial ETT at minimum (If test positive or inconclusive, imaging stress test may be indicated). Cardiologist examination recommended.
Angina Pectoris	Lower end of spectrum among CHD patients for risk of adverse clinical outcomes. Condition usually implies at least one coronary artery has hemodynamically significant narrowing.	Yes, if asymptomatic. No if: Rest angina or change in angina pattern within 3 months of examination; Abnormal ETT; Ischemic changes on rest ECG; Intolerance to cardiovascular therapy.	Annual Biennial ETT at minimum (If test positive or inconclusive, imaging stress test may be indicated). Cardiologist examination recommended.

COMMERCIAL DRIVERS WITH KNOWN CORONARY HEART DISEASE (CHD) (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 37

DIAGNOSIS	PHYSIOLOGIC/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Post Percutaneous Coronary Intervention (PCI)	Rapid recovery for elective PCIs for stable angina. Delayed re-stenosis is the major PCI limitation and requires intensive secondary prevention.	Yes if: At least 1 week after procedure; Approval by cardiologist; Tolerance to medications. ETT 3 to 6 months after PCI. No if: Incomplete healing or complication at vascular access site; Rest angina; Ischemic ECG changes.	Annual Recommend cardiologist examination. Biennial ETT at minimum (If test positive or inconclusive, imaging stress test may be indicated).
Post Coronary Artery Bypass Surgery (CABG)	Delay in return to work to allow sternal incision healing. Because of increasing risk of graft closure over time, ETT is obtained.	Yes if: At least 3 months after CABG; LVEF ≥40% post CABG; Approval by cardiologist; Asymptomatic; Tolerance to medications.	Annual After 5 years: Annual ETT. Imaging stress test may be indicated.

COMMERCIAL DRIVERS WITHOUT KNOWN CORONARY HEART DISEASE (CHD)

2002 Cardiovascular Conference Report Recommendation Tables, Page 35

DIAGNOSIS	PHYSIOLOGIC/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Asymptomatic, healthy	Low CHD event risk. Assess for clinically apparent risk factors. Use, when possible, Framingham risk score model to predict 10-year CHD event risk. Increasing age is a surrogate marker for increasing atherosclerotic plaque burden.	Yes, if asymptomatic; Rarely disqualifying alone.	Biennial
Asymptomatic, high risk person (as designated by CHD risk-equivalent condition)* Asymptomatic, high risk person >45 years with multiple risk factors for CHD	Sub-clinical coronary atherosclerosis is a concern. High-risk status requires close physician follow-up and aggressive comprehensive risk factor management.	Yes if: asymptomatic. No if: Abnormal ETT;** Ischemic changes on ECG;† Functional incapacitation by one of conditions.	Annual

*CHD risk equivalent is defined as presence of diabetes mellitus, peripheral vascular disease, or Framingham risk score predicting a 20% CHD event risk over the next 10 years.

** Abnormal Exercise Tolerance Test (ETT) is defined by an inability to exceed 6 METS (beyond completion of Stage II, or 6 minutes) on a standard Bruce protocol or the presence of ischemic symptoms and/or signs (e.g., characteristic angina pain or 1 mm ST depression or elevation in 2 or more leads), inappropriate SBP and/or heart rate responses (e.g., inability in the maximal heart rate to meet or exceed 85% of age-predicted maximal heart rate), or ventricular dysrhythmia.

† Ischemic ECG changes are defined by the presence of new 1 mm ST-segment elevation or depression and/or marked T wave abnormality.

CONGENITAL HEART DISEASE

2002 Cardiovascular Conference Report Recommendation Tables, Page 128

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Patent Ductus Arteriosus (PDA)	Small = favorable. Moderate to large = unfavorable	Yes, if small shunt. No if: Symptoms of dyspnea or palpitations; Pulmonary hypertension; Right to left shunt; Progressive LV enlargement or decreased systolic function. Yes if: At least 3 months after surgery or 1 month after device closure; None of above disqualifying criteria; Cleared by cardiologist knowledgeable in adult congenital heart disease.	Annual Annual Should have evaluation by cardiologist knowledgeable in adult congenital heart disease.
Coarctation of the Aorta	Mild = favorable. Moderate or severe = unfavorable prognosis.	Yes if: Mild and unoperated; BP controlled; No associated disqualifying disease. No	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease recommended.
Coarctation of the Aorta after intervention	Unfavorable prognosis with persistent risk of cardiovascular events.	Yes, if perfect repair (see text p. 115 and 116).	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease required.

CONGENITAL HEART DISEASE (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 129

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Pulmonary Valve Stenosis (PS)	Mild and moderate = favorable. Severe PS may be unfavorable, associated with arrhythmias and rarely sudden death.	Yes, if mild or moderate. No if: Symptoms of dyspnea, palpitations or syncope; Pulmonary valve peak gradient >50 mm Hg with normal output; RV pressure >50% systemic pressure; >mild RVH; >mild RV dysfunction; >moderate pulmonary valve regurgitation; Main pulmonary artery >5 cm. Yes if: 3 months after surgical valvotomy or 1 month after balloon valvuloplasty; None of above disqualifying criteria; Cleared by cardiologist knowledgeable in adult congenital heart disease.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease. Annual Recommend evaluation by cardiologist knowledgeable in adult congenital heart disease.
Other causes of right ventricular outflow obstruction in persons with congenital heart disease	Double chambered right ventricle. Infundibular pulmonary stenosis. Supravalvar pulmonary stenosis. Pulmonary artery stenosis.	Yes if: Hemodynamic data and criteria similar to individuals with isolated pulmonary valve stenosis who are eligible for certification.	Annual Recommend evaluation by cardiologist knowledgeable in adult congenital heart disease.

CONGENITAL HEART DISEASE (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 130

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RE-CERTIFICATION
Ebstein Anomaly	Mild = favorable. Moderate and severe variants = unfavorable.	Yes if: Mild; Asymptomatic; No intracardiac lesions; No shunt; No symptomatic arrhythmia or accessory conduction; Only mild cardiac enlargement; Only mild RV dysfunction. No if: (see text, p. 117). Yes if: At least 3 months post-surgical intervention; None of above disqualifying features.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease. Annual Echocardiogram and evaluation by cardiologist knowledgeable in adult congenital heart disease required.
Tetralogy of Fallot	Unfavorable in the unrepaired state. Repaired = variable prognosis.	No, if uncorrected. Yes if: Excellent result obtained from surgery; Asymptomatic; No significant pulmonary or tricuspid valve regurgitation; No pulmonary stenosis; No history of arrhythmias; No residual shunt.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease required, including EKG, 24-hour Holter Monitor, exercise testing, Doppler Echocardiogram.

CONGENITAL HEART DISEASE (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 131

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Transposition of the Great Vessels	Unfavorable if uncorrectable.	No	
	Atrial switch repair (Mustard or Senning procedures). Unfavorable long-term prognosis.	No	
	After Rastelli repair.	Yes if: Asymptomatic and excellent result obtained from surgery No if: (see text p.119).	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease.
	After arterial switch repair, prognosis appears favorable.	No (Data currently not sufficient to support qualification in this group).	

CONGENITAL HEART DISEASE (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 132

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Congenitally Corrected Transposition	95% have associated intracardiac lesions. Conduction system is inherently abnormal.	Yes if: None of below disqualifying criteria. No if: Symptoms of dyspnea, palpitations, syncope or paradoxical embolus; Intracardiac lesion such as VSD; >moderate pulmonary stenosis with a pulmonary ventricular pressure >50% systemic; >mild RV or LV enlargement or dysfunction; Moderate or greater tricuspid valve (systemic atrioventricular valve) regurgitation; History of atrial or ventricular arrhythmia; ECG with heart block; Right-to-left shunt or significant residual left-to-right shunt. Yes if: At least 3 months after surgery; None of above disqualifying criteria; Prosthetic valve–must meet requirements for that valve; Cleared by cardiologist knowledgeable in adult congenital heart disease.	Annual Required annual evaluation by cardiologist knowledgeable in adult congenital heart disease includes echocardiography and 24-hour Holter Monitor. Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease.

HEART TRANSPLANTATION

2002 Cardiovascular Conference Report Recommendation Tables, Page 154

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Heart Transplantation	Special attention to: Accelerated atherosclerosis, transplant rejection, general health.	Yes if: At least 1 year post-transplant; Asymptomatic; Stable on medications; No rejection; Consent from cardiologist to drive commercially.	Biannual Clearance by cardiologist required.

Important Note: This print file was current as of "February 2009." Check for more recent updates at http://nrcme.fmcsa.dot.gov/part_4_guide_ep.htm#lastup.htm.

HYPERTENSION

2002 Cardiovascular Conference Report Recommendation Tables, Page 55

DIAGNOSIS	PHYSIOLOGIC/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Essential Hypertension	Evaluate for other clinical CVD including TOD.† Presence of TOD, CVD or diabetes may affect therapy selected.	Yes, if asymptomatic. Rarely disqualifying alone.	Biennial
Stage 1 (140-159/90-99 mm Hg)	Usually asymptomatic. Low risk for near-term incapacitating event.	Yes Rarely disqualifying alone.	Annual BP <140/90 at annual exam. If not, but <160/100, certification extended one time for 3 months.
Stage 2 (160–179/100–109 mm Hg)	Low risk for incapacitating event. Risk increased in presence of TOD. Indication for pharmacologic therapy.	Yes One time certification for 3 months. Yes, at recheck if: BP ≤140/90 mm Hg; Certify for 1 year from date of initial exam.	 Annual BP ≤140/90.
Stage 3 (≥180/110 mm Hg)	High risk for acute hypertension-related event.	No Immediately disqualifying. Yes, at recheck if: BP ≤140/90 mm Hg; Treatment is well tolerated; Certify for 6 months from date of initial exam.	 Every 6 months BP ≤140/90.
Secondary Hypertension	Evaluation warranted if persistently hypertensive on maximal or near-maximal doses of 2-3 pharmacologic agents. May be amenable to surgical/specific therapy.	Based on above stages. Yes if: Stage 1 or nonhypertensive; At least 3 months after surgical correction.	 Annual BP ≤140/90.

† TOD – Target Organ Damage – Heart Failure, Stroke or Transient Ischemic Attack, Peripheral Artery Disease, Retinopathy, Left Ventricular Hypertrophy, Nephropathy. Examiner may disqualify a driver if TOD significantly impairs driver's work capacity. Driver should have no excess sedation or orthostatic change in BP.

IMPLANTABLE DEFIBRILLATORS

2002 Cardiovascular Conference Report Recommendation Tables, Page 104

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Primary Prevention	Patient has high risk for death and sudden incapacitation.	No	
Secondary Prevention	Patient demonstrated to have high risk for death and sudden incapacitation.	No	

MITRAL REGURGITATION

2002 Cardiovascular Conference Report Recommendation Tables, Page 77

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Mild Mitral Regurgitation		Yes, if: Asymptomatic; Normal LV size and function;* Normal PAP.	Annual Annual echo not necessary.
Moderate Mitral Regurgitation		Yes, if: Asymptomatic; Normal LV size and function;* Normal PAP.	Annual Annual Echocardiogram.
Severe Mitral Regurgitation		Yes, if asymptomatic. Yes if: At least 3 months post-surgery; Asymptomatic; Cleared by cardiologist. No if: Symptomatic; Inability to achieve >6 METS on Bruce protocol; Ruptured chordae or flail leaflet; Atrial fibrillation; LV dysfunction;* Thromboembolism; Pulmonary artery pressure >50% of systolic arterial pressure.	Annual Echocardiogram every 6-12 months. Exercise testing may be helpful to assess symptoms. Annual

EF = Ejection fraction; LVESD = Left ventricular end-systolic dimension
LVEDD = Left ventricular end-diastolic dimension;
PAP = Pulmonary artery pressure
*Measures include: LVEF <60%; LVESD ≥45mm; LVEDD ≥70mm

MITRAL STENOSIS

2002 Cardiovascular Conference Report Recommendation Tables, Page 76

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
*Mild Mitral Stenosis MVA ≥1.6 cm^2	In the presence of symptoms consistent with moderate to severe mitral stenosis but a calculated valve area suggesting mild mitral stenosis, the severity of the stenosis should be reassessed and an alternative explanation for symptoms should be considered.	Yes, if asymptomatic.	Annual
*Moderate Mitral Stenosis MVA 1.0 to 1.6 cm^2		Yes, if asymptomatic.	Annual
*Severe Mitral Stenosis MVA ≤1.0 cm^2		No if: NYHA Class II or higher; Atrial fibrillation; Pulmonary artery pressure >50% of systemic pressure; Inability to exercise for >6 Mets on Bruce protocol (Stage II). Yes if: At least 4 weeks post percutaneous balloon mitral valvotomy; At least 3 months post surgical commissurotomy; Clearance by cardiologist.	 Annual Annual evaluation by a cardiologist.

MVA = mitral valve area

*See text p.61 for additional echocardiogram criteria.

PACEMAKERS

2002 Cardiovascular Conference Report Recommendation Tables, Page 101

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION RE	CERTIFICATION
Sinus Node Dysfunction	Va riable long-term prognosis depending on underlying disease, but cerebral hypoperfusion corrected by support of heart rate by pacemaker.	No Yes if: 1 month after pacemaker implantation; Documented correct function by pacemaker center; Underlying disease is not disqualifying.	 Annual Documented pacemaker checks.
Atrioventricular (AV) Block	Variable long-term prognosis depending on underlying disease, but cerebral hypoperfusion corrected by support of heart rate by pacemaker.	No Yes if: 1 month after pacemaker implantation and documented correct function by pacemaker center; Underlying disease is not disqualifying.	 Annual Documented pacemaker checks.

PACEMAKERS (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 102

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION RE	CERTIFICATION
Neurocardiogenic Syncope	Excellent long-term survival prognosis, but there is risk for syncope that may be due to cardioinhibitory (slowing heart rate) or vasodepressor (drop in blood pressure) components, or both. Pacemaker will affect only cardioinhibitory component, but will lessen effect of vasodepressor component.	No, with symptoms. Yes if: 3 months* after pacemaker implantation; Documented correct function by pacemaker center; Absence of symptom recurrence.	 Annual Documented pacemaker checks. Absence of symptom recurrence.

*Three months recommended due to possible vasodepressor component of syndrome not necessarily treated by pacing.

PACEMAKERS (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 103

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Hypersensitive Carotid Sinus with Syncope	Excellent long-term survival prognosis, but there is risk for syncope that may be due to cardioinhibitory (slowing heart rate) or vasodepressor (drop in blood pressure) components, or both. Pacemaker will affect only cardioinhibitory component, but will lessen effect of vasodepressor component.	No, with symptoms. Yes if: 3 months* after pacemaker implantation; Documented correct function by pacemaker center; Absence of symptom recurrence.	Annual Documented regular pacemaker checks. Absence of symptom recurrence.

*Three months recommended due to possible vasodepressor component of syndrome not necessarily treated by pacing.

PERIPHERAL VASCULAR DISEASE

2002 Cardiovascular Conference Report Recommendation Tables, Page 146

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Peripheral Vascular Disease (PVD)	Evaluate for associated cardiovascular diseases.	Yes, if no other disqualifying cardiovascular condition.	Annual
Intermittent Claudication	Most common presenting manifestation of occlusive arterial disease. Rest pain.	Yes if: At least 3 months after surgery; Relief of symptoms; No other disqualifying cardiovascular disease. No, if symptoms. Yes if: At least 3 months after surgery; Relief of symptoms and signs; No other disqualifying cardiovascular disease.	Annual Annual

SUPRAVENTRICULAR TACHYCARDIAS

2002 Cardiovascular Conference Report Recommendation Tables, Page 96

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Atrial Fibrillation			
Lone Atrial Fibrillation	Good prognosis and low risk for stroke.	Yes	Annual
Atrial fibrillation as cause of or a risk for stroke	Risk for stroke decreased by anticoagulation.	Yes if: Anticoagulated adequately for at least 1 month; Anticoagulation monitored by at least monthly INR; Rate/rhythm control deemed adequate (Recommend assessment by cardiologist).	Annual
Atrial fibrillation following thoracic surgery	Good prognosis and duration usually limited.	In atrial fibrillation at time of return to work; Yes if: Anticoagulated adequately for at least 1 month; Anticoagulation monitored by at least monthly INR; Rate/rhythm control deemed adequate (Recommend assessment by cardiologist).	Annual

SUPRAVENTRICULAR TACHYCARDIAS (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 97

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Atrial Flutter	Same as for atrial fibrillation.	Same as for atrial fibrillation. Yes if: Isthmus ablation performed and at least 1 month after procedure; Arrhythmia successfully treated; Cleared by electrophysiologist.	Same as for atrial fibrillation. Annual
Multifocal Atrial Tachycardia	Often associated with comorbidities, such as lung disease, that may impair prognosis.	Yes if: Asymptomatic; Unless associated condition is disqualifying. No, if symptomatic. Yes if: Symptoms controlled and secondary cause is not exclusionary.	Annual Annual
Atrioventricular Nodal Reentrant Tachycardia (AVNRT) Atrioventricular Reentrant Tachycardia (AVRT) and Wolff-Parkinson-White (WPW) Syndrome Atrial Tachycardia Junctional Tachycardia	Prognosis generally excellent, but may rarely have syncope or symptoms of cerebral hypoperfusion. For those with WPW, pre-excitation presents risk for death or syncope if atrial fibrillation develops.	No if: Symptomatic; WPW with atrial fibrillation. Yes if: Asymptomatic; Treated and asymptomatic for at least 1 month and assessed and cleared by expert in cardiac arrhythmias.	Annual Recommend consultation with cardiologist.

VALVE REPLACEMENT

2002 Cardiovascular Conference Report Recommendation Tables, Page 80

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION RECERTIFICATION	
Mechanical Valves		Yes if: At least 3 months post-op; Asymptomatic; Cleared by cardiologist. No if: Symptomatic; LV dysfunction-EF <40%; Thromboembolic complication post procedure; Pulmonary hypertension; Unable to maintain adequate anticoagulation (based on monthly INR checks).	Annual Recommend evaluation by cardiologist.*
Pr	osthetic valve dysfunction.	No Yes if: Surgically corrected; At least 3 months post-op; Asymptomatic; Cleared by cardiologist.	Annual Recommend evaluation by cardiologist.*

* Role of annual echocardiography in stable patients is controversial.

VALVE REPLACEMENT (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 81

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
	Atrial fibrillation.	Yes if: Anticoagulated adequately for at least 1 month and monitored by at least monthly INR, rate/rhythm control adequate; Cleared by cardiologist.	Annual
Biologic Prostheses	Anticoagulant therapy not necessary in patients in sinus rhythm (after initial 3 months), in absence of prior emboli or hypercoagulable state.	Yes if: At least 3 months post-op; Asymptomatic; None of above disqualifying criteria for mechanical valves; Cleared by cardiologist.	Annual Recommend evaluation by cardiologist.*

* Role of annual echocardiography in stable patients is controversial.

VENOUS DISEASE

2002 Cardiovascular Conference Report Recommendation Tables, Page 147

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Acute Deep Vein Thrombosis (DVT)		No, if symptoms. Yes if: No residual acute deep venous thrombosis; If on Coumadin: Regulated for at least 1 month; INR monitored at least monthly.	Annual
Superficial Phlebitis		Yes if: DVT ruled out; No other disqualifying cardiovascular disease.	Biennial
Pulmonary Embolus		No, if symptoms. Yes if: No pulmonary embolism for at least 3 months; On appropriate long-term treatment; If on Coumadin: Regulated for at least 1 month; INR monitored at least monthly; No other disqualifying cardiovascular disease.	Annual
Chronic Thrombotic Venous Disease		Yes, if no symptoms.	Biennial
Varicose veins		Yes, if no complications.	Biennial
Coumadin	Use of INR required.	Yes if: Stabilized for 1 month; INR monitored at least monthly.	Annual

VENTRICULAR ARRHYTHMIAS

2002 Cardiovascular Conference Report Recommendation Tables, Page 98

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Coronary Heart Disease (CHD)	Sustained VT: Poor prognosis and high risk.	No	
	NSVT, LVEF <0.40: Unfavorable prognosis.	No	
	NSVT, LVEF ≥0.40: Generally considered to have good prognosis.	No, if symptomatic.	
		Yes if: Asymptomatic; At least 1 month after drug or other therapy is successful; Cleared by cardiologist.	Annual Cardiology examination required.
Dilated Cardiomyopathy	NSVT (LVEF ≤0.40).	No	
	Sustained VT, any LVEF.	No	
	Syncope/near syncope, any LVEF: High risk.	No	
Hypertrophic Cardiomyopathy	Variable but uncertain prognosis.		

VENTRICULAR ARRHYTHMIAS (Continued)

2002 Cardiovascular Conference Report Recommendation Tables, Page 99

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Right Ventricular Outflow VT	Favorable prognosis and low risk for syncope.	No, if symptomatic. Yes, if asymptomatic. Yes if: At least 1 month after drug or other therapy successful; Asymptomatic; Cleared by electrophysiologist.	 Annual Recommend evaluation by cardiologist. Annual Evaluation by cardiologist required.
Idiopathic Left Ventricular VT	Favorable prognosis and low risk for syncope.	No, if symptomatic Yes, if asymptomatic. Yes if: At least 1 month after successful drug therapy or ablation; Cleared by electrophysiologist.	 Annual Recommend evaluation by cardiologist. Annual Evaluation by cardiologist required.
Long QT Interval Syndrome	High risk for ventricular arrhythmic death.	No	
Brugada Syndrome	High risk for ventricular arrhythmic death.	No	

EF = ejection fraction
LV = left ventricular
NSVT = nonsustained ventricular tachycardia
VT = ventricular tachycardia

VENTRICULAR SEPTAL DEFECTS

2002 Cardiovascular Conference Report Recommendation Tables, Page 127

DIAGNOSIS	PHYSIOLOGY/ FUNCTIONAL	CERTIFICATION	RECERTIFICATION
Ventricular Septal Defect	Small = favorable.	Yes, if small shunt.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease recommended.
	Moderate to large VSD has effect on pulmonary pressure and ventricular size and function.	No if: Moderate to large VSD; Symptoms of dyspnea, palpitations or syncope; Pulmonary artery hypertension; Right-to-left shunt, left ventricular enlargement or reduced function; Pulmonary to systemic flow ratio greater than 1.5 to 1.	
		Yes if: At least 3 months after surgery; None of above disqualifying criteria; No serious dysrhythmia on 24-hour Holter Monitoring; QRS interval <120 ms (If right ventricle conduction delay >120 ms on ECG, can be certified if invasive HIS bundle studies show no infra-His block or other serious electrophysiologic disorder); Cleared by cardiologist knowledgeable in adult congenital heart disease.	Annual Evaluation by cardiologist knowledgeable in adult congenital heart disease, including 24-hour Holter Monitoring.

US Department
Of Transportation
Federal Motor Carrier
Safety Administration

1200 New Jersey Ave., SE
Washington, DC 20590

Dear Applicant:

Thank you for your interest in the Federal Diabetes Exemption Program. The information in this letter and the accompanying materials need to be read carefully. The applicant is responsible for providing all required information. The following information is required to be submitted:

1. Applicant Information Checklist;
2. Signed copy of the Medical Examination Report (completed by the Medical Examiner);
3. Signed copy of the Medical Examiner's Certificate (completed by the Medical Examiner);
4. Endocrinologist Evaluation Checklist;
5. Vision Evaluation Checklist;
6. Copy of your driver's license and motor vehicle record.

How does the applicant apply for an exemption from the diabetes standard?

A. Medical Examiner

The applicant must be examined by a medical examiner, as defined in 49 CFR 390.5. The examiner can be a physician, (MD, DO), advanced nurse practitioner, physician assistant, or chiropractor if allowed by their state regulations to certify drivers. This examination **STARTS** the exemption process. The applicant **MUST** take the Certifying Medical Examiner Evaluation letter to the appointment with the medical examiner for him/her to review prior to performing the examination. In addition, the applicant must bring a copy of his/her 5 year medical history to the examination for the medical examiner to review. The medical examiner will have copies of the United States Department of Transportation Medical Examination Report Form and the Medical Examiner's Certificate. The applicant must meet all medical standards and guidelines, other than diabetes, in accordance with 49 CFR 391.41 (b) (1-13).

Other than the use of insulin to treat their diabetes, any other medical problem or condition that prevents the applicant from being certified by the medical examiner must be corrected **BEFORE** the rest of this application is completed. Therefore, the endocrinologist and vision evaluations **SHOULD NOT** be completed until the medical examiner certifies the applicant. The applicant must submit copies of the completed medical examination report and medical examiner's certificate. The certificate should indicate that the driver is certified **ONLY IF** the driver has a diabetes exemption. The certificate is not valid until the insulin exemption is obtained from the Federal Motor Carrier Safety Administration (FMCSA).

B. Endocrinologist Evaluation Checklist

The applicant must be examined by a physician who is a board-certified or board-eligible endocrinologist. The applicant must take the Endocrinologist Evaluation Checklist and glucose logs to the appointment. The endocrinologist must complete all parts of the checklist. The applicant must submit the endocrinologist's signed letterhead, a completed checklist, and any additional reports outlined in the checklist to the exemption program.

C. Vision Evaluation Checklist

The applicant must have a vision examination by an ophthalmologist or optometrist. An applicant with **diabetic retinopathy MUST be evaluated by an ophthalmologist**. The applicant must take the Vision Evaluation Checklist to the appointment. The ophthalmologist or optometrist must complete all parts of the checklist. The applicant must submit the optometrist/ophthalmologist's signed letterhead and a completed checklist to the exemption program.

Please note that both the Endocrinologist and Vision medical evaluations are only valid for 6 months from the date performed. The medical examiner's evaluation is valid for 1 year from the date performed. Applicants will be required to submit a new examination for any of the aforementioned examinations if they expire during the application process.

D. Additional Applicant Information

The applicant must provide a completed Applicant Information Checklist, a readable photocopy of both sides of the driver's license, and a current motor vehicle record.

Additional medical information may be required, based on review of the information submitted. Prior to submitting the application, please review all information and make sure that each checklist is **completely filled out and that all required information is included.** Application review will be delayed if the information submitted is not current or if it is incomplete. Mail all information to:

Federal Diabetes Exemption Program
1200 New Jersey Ave., SE
Room W64-224
Washington, DC 20590

The application may be faxed to 703-448-3077. However, original documents **must** be mailed to the above address.

What Happens After a Completed Application Is Submitted?

The FMCSA will review the application and notify the applicant if additional information is required or missing. Please note, as stated above, that additional medical information may be required. Once the application is complete, the FMCSA will determine applicant eligibility for this program.

If the applicant is eligible for an exemption, the FMCSA is required to publish the applicant request for exemption in the Federal Register twice; this includes a 30 day period for public comment and notification of the Agency's final decision. The notice discloses the applicant's full name, age, basic information related to the applicant's insulin use to control diabetes, and the type of driving license held; however, the notice does not include any detailed personal information, such as the applicant's address, employer, medical records, or driver's license number.

If granted, the Federal exemption is valid for CMV operation within the United States and does not exempt the applicant from foreign requirements, such as Canada and Mexico.

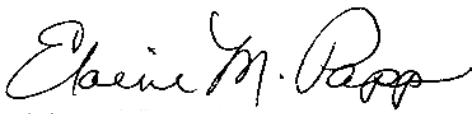
If the Applicant Does Not Meet Eligibility Criteria
If the FMCSA determines that the applicant does not meet program eligibility criteria, a decision letter will be mailed directly to the applicant outlining the reason that the Agency is unable to grant the exemption from the Federal diabetes standard.

How Long Does the Process Take?
The FMCSA is required to complete the application process within 180 days from the date all required information is submitted by the applicant.

What Is Required of the Driver After an Exemption Is Granted?
The exemption certificate and requirements are sent to the exempted applicant by certified mail. The FMCSA can issue an exemption for a maximum of 2 years. Quarterly and annual medical monitoring and reporting are conditions of the exemption from the Federal diabetes standard of 49 CFR 391.41(b)(3). The driver will receive the necessary forms from the FMCSA and will be responsible for compliance. Additionally, the driver is required to reapply for renewal every two years, and, as with monitoring, the responsibility of reapplication rests with the driver. The driver must have yearly medical re-certification examinations.

If you have questions related to the application process outlined in this document, please call 703-448-3094.

Sincerely yours,



Elaine M. Papp, RN MSN COHN-S CM
Division Chief, Medical Programs

Enclosures

Applicant Checklist

1. Driver Information

Name (First, Middle Initial, Last): _____

Street Address: _____

City: _____ State: _____ ZIP code: _____

Mailing Address, if different from above:

_____

City: _____ State: _____ ZIP code: _____

Telephone number: (____) _____- _____

Mobile phone number: (____) _____- _____

Fax number: (____) _____- _____

Sex (check one): ☐ Male ☐ Female

Date of birth (MM/DD/YYYY): _____

Social Security number: _____ -_____- _____

2. Current Employment

Employer's name (If applicable): _____

Employer's address: _____

City: _____ State: _____ ZIP code: _____

Employer's telephone number: (____) _____- _____

Do you currently drive for this employer? (Check one): ☐ YES ☐ NO

3. Statement of Qualification

Prior to signing this statement, please review the Regulatory Criteria on Physical Qualifications for Commercial Drivers attached to the Endocrinologist Medical Evaluation Checklist.

Note: "otherwise qualified" or "hold a valid medical exemption" means that you meet the physical qualification standards to drive a Commercial Motor Vehicle (CMV) (except for diabetes) or that you have an exemption or a skill performance evaluation certificate.

By signing below, I hereby certify that the following statement is true: "I acknowledge that I must be otherwise qualified under 49 CFR 391.41(b)(1-13) or hold a valid medical exemption before I can legally operate a CMV in interstate commerce."

Signature: _____

I intend to drive a CMV in: ☐ Intrastate commerce only

☐ Interstate commerce only

Interstate Commerce is trade, traffic, or transportation involving the crossing of a State boundary. Either the vehicle, its passengers, or cargo must cross a State boundary, or there must be the intent to cross a State boundary to be considered an interstate carrier.
Intrastate Commerce is trade, traffic, or transportation within a single State.

Do you have any waivers, exemptions, or Skill Performance Evaluation certificates? (check one)
☐ YES ☐ NO

If yes, list each, including date of issue, date of expiration, and identification number.

Name	**Issue Date**	**Expiration Date**	**ID#**

4. Driver License and Motor Vehicle Record

Please attach a readable copy of **both sides** of your current **VALID** driver's license. You must include your driving record, furnished by an official state agency on its letterhead, bearing the state seal or official stamp. ***No other documentation will be accepted*** This request is to verify that you have a valid license and will not be used for any other purpose.

CERTIFYING MEDICAL EXAMINER EVALUATION GUIDELINES
FEDERAL DIABETES EXEMPTION PROGRAM

The applicant is applying for a Federal diabetes exemption to allow insulin use while operating a commercial motor vehicle (large truck or bus) in interstate commerce. Effective July 15, 2007, the driver is required to be examined by a medical examiner as part of the application process. A medical examiner is defined as an advanced practice nurse, doctor of chiropractic, doctor of osteopathy, medical doctor, or physician assistant who is licensed in their state to perform these examinations. This change will assist the Agency in determining that the individual is qualified for all medical standards, other than diabetes, in accordance with 49 CFR 391.41(b); expedite the application process; and make the process consistent with other medical exemption and certificate programs, including the Skill Performance Evaluation program.

This examination begins the exemption process. The certifying medical examiner must review the applicant's 5 year medical history and provide the applicant with a completed U.S. Department of Transportation medical examination report and medical examiner's certificate. The applicant is responsible to submit copies of these forms with their application. The form and certificate are not valid until Federal Motor Carrier Safety Administration (FMCSA) has issued an insulin exemption. Any other medical problem or condition that prevents being certified by the medical examiner must be corrected **BEFORE** the rest of this application is completed.

IT IS THE EXAMINER'S RESPONSIBILITY TO DETERMINE IF THE APPLICANT MEETS ALL MEDICAL STANDARDS AND GUIDELINES, OTHER THAN DIABETES, IN ACCORDANCE WITH 49 CFR 391.41 (B) (1-13). **IF THE APPLICANT PASSES THE CERTIFICATION EXCEPT FOR USING INSULIN:**

Check the following on the Medical Examination Report:

- meets standards but periodic evaluation required due to **"insulin use"** driver qualified only for (check the 1 year box)
- accompanied by a **"Federal diabetes"** waiver/exemption

Check the following on the Medical Examiner's Certificate:

- accompanied by a **"Federal diabetes"** waiver/exemption
- Medical examination expiration date should be one year from the date of examination.

The applicant is required to submit copies of the Medical Examination Report and Medical Examiner's Certificate along with the endocrinologist and the ophthalmologist/optometrist evaluation checklists, to be reviewed by FMCSA for the determination of qualification for the Federal diabetes exemption.

If you have questions, please call 703-448-3094. When calling, please leave a message on our automated system for the Federal diabetes exemption program. A program representative will return your call.

Please print and sign your name below and return this to the applicant:

Medical Examiner's Signature: _____ Date: _____
Medical Examiner's Name (please print): _____

Endocrinologist Evaluation Checklist

Federal Diabetes Exemption Program

Driver Identifying Information

Name: _____
First MI Last

Address: _____

DOB (MM/DD/YYYY): _____

This applicant is applying for a Federal diabetes exemption to be able to take insulin while operating a commercial motor vehicle (large truck or bus) in interstate commerce. Part of the application process is an evaluation by a board-certified or board-eligible Endocrinologist to determine if the individual has any medical problem related to diabetes that might impair safe driving.

The applicant's examination by an Endocrinologist is only valid for 6 months from the date performed. Applicants will be required to submit a new examination if the current examination expires during the application process.

PLEASE CHECK / FILL IN REQUESTED INFORMATION.

1. □ I am board-certified in endocrinology.

   □ I am board-eligible in endocrinology.

If neither, do not continue your assessment. Applicants must be evaluated by an endocrinologist who is board-certified or board-eligible.

2. Office telephone number: _____

3. Office fax number: _____

4. Date of most recent examination (MM/DD/YYYY): _____

5. I am familiar with the patient's medical history for the past 5 years through a records review, treating the patient or consultation with the treating physician.
   □ YES □ NO

A review of the applicant's 5-year medical history is required. If the history is not available, please state the reason.

_____
_____
_____

6. Date of initial diagnosis of diabetes mellitus: _____

   Treatment for diabetes mellitus prior to insulin use:
   □ None □ Diet □ Oral agent

7. Insulin Usage:
   Date insulin use began: _____
   Type of insulin(s) and current dosage now used: _____
   _____
   Length of time on current dose: _____
   Is the applicant compliant with his/her insulin regimen? □ YES □ NO

   If patient uses insulin pump, current average daily dose: _____

8. FMCSA defines **a severe hypoglycemic reaction** as one that results in:
   Seizure, or
   Loss of consciousness, or
   Requiring assistance of another person, or
   Period of impaired cognitive function that occurred without warning.

In the last 5 years, while being treated for diabetes, has the patient had recurrent (2 or more) severe hypoglycemic episodes? □ YES □ NO

In the last 12 months, while being treated for diabetes, has the patient had a severe hypoglycemic episode? □ YES □ NO (**If no proceed to #9 below**)

If yes, provide information on each hypoglycemic episode:
Date(s):
_____
Include additional information about each episode including symptoms of hypoglycemic reaction, treatment, and suspected cause:
_____
_____
_____

Was the patient hospitalized? □ YES □ NO
If yes, provide brief summary of hospitalization:
_____
_____
_____

Has the patient's treatment regimen changed since the last hypoglycemic episode?
□ YES □ NO

Briefly explain changes:
_____
_____
_____

9. Additional Information or History (If none, write *none*.):

_____
_____
_____
_____

10. List all medications including those taken related to the treatment of diabetes (if none, write none):

Name of Medication **Dose** **Reason for Taking the Medication**

_____
_____
_____
_____
_____
_____

11. In your medical opinion, does any one of the listed medications have the potential to compromise the driver's ability to operate a CMV safely?

□ YES □ NO

If yes, which medication(s): _____
_____

12. Associated Medical Conditions (please check *yes* or *no*):

Renal Disease	Renal insufficiency	□ YES	□ NO
	Proteinuria	□ YES	□ NO
	Nephrotic Syndrome	□ YES	□ NO
Cardiovascular Disease	Coronary artery disease	□ YES	□ NO
	Hypertension	□ YES	□ NO
	Transient ischemic attack	□ YES	□ NO
	Stroke	□ YES	□ NO
	Peripheral vascular disease	□ YES	□ NO
Neurological Disease	Autonomic neuropathy (i.e, cardiovascular GI, GU)	□ YES	□ NO
	Peripheral Neuropathy	□ YES	□ NO
	(Circle one below)		
	Sensory		
	Decreased sensation		
	Loss of vibratory sense		
	Loss of position sense		

If the applicant has been or is currently being treated for any of the above medical conditions, provide relevant additional information (consultation notes, special studies, follow-up reports, and hospital records)**.**

13**.** Stable Insulin Regimen/Glucose Measurements:

A. Background and criteria:
The driver should have stable control and no risk of hypoglycemia and hyperglycemia while operating a CMV.

30 day requirement: An individual diagnosed with diabetes mellitus who had been previously treated with oral medication, and who now requires insulin, should have at least a 1-month period on insulin to establish stable control.

60 day requirement: An individual newly diagnosed with diabetes mellitus, who is now starting insulin, should have at least a 2-month period on insulin to establish stable control.

B. Glucose Measurements:

A CMV driver **should not have large fluctuations in blood glucose levels. The determination of a patient's stable control is left to the treating endocrinologist.**

a. I have reviewed the patient's daily glucose monitoring logs while using insulin.
□ YES □ NO

b. Does the patient have any large fluctuations that may impact safe driving?
□ YES □ NO

14. Since beginning insulin use, has the patient received education in the management of diabetes that includes diet, monitoring, recognition and treatment of hypoglycemia and hyperglycemia? □ YES □ NO

If yes, please provide last education date (MM/YYYY): _____

Note: The applicant must participate in a diabetes education program at least annually to apply for and remain in the diabetes exemption program.

15. I hereby certify that in my medical opinion, this applicant understands how to individually manage and monitor his/her diabetes mellitus. □ YES □ NO

16. In my medical opinion, the applicant has demonstrated the ability and willingness to properly monitor and manage their diabetes. □ YES □ NO

17. I hereby certify that in my medical opinion, the applicant is able to safely operate a commercial motor vehicle (large truck or motor coach) in interstate commerce while using insulin. □ YES □ NO

18. **Please attach your office letterhead with your printed/typed name, signature, date, medical license number, and state of issue to this checklist.**

Vision Evaluation Checklist

Federal Diabetes Exemption Program

Driver Identifying Information

Name: _____
First MI Last
Address:_____

DOB (MM/DD/YYYY): _____

This applicant is applying for a Federal diabetes exemption to be able to take insulin while operating a commercial motor vehicle (large truck or bus) in interstate commerce. Part of the application process is an eye examination by an ophthalmologist or optometrist to determine if the individual has any vision problem that might impair safe driving.
NOTE: If the applicant has retinopathy, an ophthalmologist examination is required.

The applicant's examination by an ophthalmologist or an optometrist is only valid for 6 months from the date performed. Applicants will be required to submit a new examination if the current examination expires during the application process.

PLEASE CHECK / FILL IN REQUESTED INFORMATION.

1. □ I am an ophthalmologist □ I am an optometrist

   Office Telephone number: _____ Office Fax number: _____

2. Date of most recent examination: _____ (MM/DD/YYYY)

3. Distant visual acuity (**please provide both if applicable**):
   □ UNCORRECTED □ CORRECTED
   □Glasses
   □Contact Lens

   Right eye: 20/_____ Right eye: 20/_____
   Left eye: 20/_____ Left eye: 20/_____

4. Field of vision (FOV)*:
   Please record the interpreted results in **degrees** of horizontal field of vision for each eye. The terms "normal" or "full" are not acceptable responses.

   Right eye: _____degrees
   Left eye: _____degrees
   Test used to determine: _____

***Note:** If the patient has received laser treatment, and in your medical opinion you believe the patient's FOV is compromised, FMCSA recommends formal perimetry to determine if the driver meets the FOV standard.

5. Color Vision:
Is the patient able to identify correctly the standard red, green, and amber traffic control signal colors? □ YES □ NO

Note: If color testing results are inconclusive, it is discretionary whether to administer a controlled test using an actual traffic signal to determine the individual's ability to recognize red, green, and amber.

An applicant with diabetic retinopathy must be evaluated by an ophthalmologist. The vision examination must occur AFTER any eye surgery/procedures (postoperatively).

6. Does the patient have diabetic retinopathy? □ YES □ NO

If yes: □ Proliferative
O Stable O Unstable
□ Nonproliferative
O Stable O Unstable
Treatment: _____
Date diagnosed: _____
Surgery/procedures: _____
Requires recheck in ____ months

7. Does the patient have macular edema?
□ YES □ NO

8. Does the patient have cataract(s)?
□ YES □ NO

9 Does the patient have any other medical diagnosis related to vision?
□ YES □ NO

If yes, what? _____

10. If yes to any of the conditions listed above, are any unstable?
□ YES □ NO

If yes, which condition(s)? _____

11. In your medical opinion, is monitoring required more often than annually?
□ YES □ NO

If yes, how often? _____

12. **Please attach your office letterhead with your printed/typed name, signature, date, license number, date of expiration and state of issue to this checklist.**

In addition, the applications must include supporting documentation showing that the applicant:

(1) Possesses a valid intrastate CDL or a license (non-CDL) to operate a CMV;
(2) Has operated a CMV, with a diabetic condition controlled by the use of insulin, for the three-year period immediately preceding application;
(3) Has a driving record for that three year period that: Contains no suspensions or revocations of the applicant's driver's license for the *operation* of *any* motor vehicle (including their personal vehicle),
Contains no involvement in an accident for which the applicant received a citation for a moving traffic violation while operating a CMV, Contains no involvement in an accident for which the applicant contributed to the cause of the accident, And Contains no convictions for a disqualifying offense or more than one serious traffic violation, as defined in 49 CFR 383.5, while operating a CMV;
(4) Has no other disqualifying conditions including diabetes-related complications;
(5) Has had no recurrent (two or more) hypoglycemic reactions resulting in a loss of consciousness or seizure within the past five years. A period of one year of demonstrated stability is required following the first episode of hypoglycemia;
(6) Has had no recurrent hypoglycemic reactions requiring the assistance of another person within the past five years. A period of one year of demonstrated stability is required following the first episode of hypoglycemia;
(7) Has had no recurrent hypoglycemic reactions resulting in impaired cognitive function that occurred without warning symptoms within the past five years. A period of one year of demonstrated stability is required following the first episode of hypoglycemia,
(8) Has been examined by a board certified or board-eligible endocrinologist (who is knowledgeable about diabetes) who has conducted a complete medical examination. The complete medical examination must consist of a comprehensive evaluation of the applicant's medical history and current status with a report including the following information:
(A) The date insulin use began,
(B) Diabetes diagnosis and disease history,
(C) Hospitalization records,
(D) Consultation notes for diagnostic examinations,
(E) Special studies pertaining to the diabetes,
(F) Follow-up reports,
(G) Reports of any hypoglycemic insulin reactions within the last five years,
(H) Two measures of glycosylated hemoglobin, the first 90 days before the last and current measure,
(I) Insulin dosages and types, diet utilized for control and any significant factors such as smoking, alcohol use, and other medications or drugs taken, and
(J) Examinations to detect any peripheral neuropathy or circulatory insufficiency of the extremities;

(9) Submits a signed statement from an examining endocrinologist indicating the following medical determinations: The endocrinologist is familiar with the applicant's medical history for the past five years, either through actual treatment over that time or through consultation with a physician, who has treated the applicant during that time, The applicant has been using insulin to control his/her diabetes from the date of the application back to the date the three years of driving experience began, The applicant has been educated in diabetes and its management, thoroughly informed of and understands the procedures which must be followed to monitor and manage his/her diabetes and what procedures should be followed if complications arise, and The applicant has the ability and has demonstrated willingness to properly monitor and manage his/her diabetes;
And

(10) Submits a separate signed statement from an ophthalmologist or optometrist that the applicant has been examined and that the applicant does not have diabetic retinopathy and meets the vision standard at 49 CFR 391.41(b)(10), or has been issued a valid medical exemption. If the applicant has any evidence of diabetic retinopathy, he or she must be examined by an ophthalmologist and submit a separate signed statement from the ophthalmologist that he or she does not have unstable proliferative diabetic retinopathy (*i.e.,* unstable advancing disease of blood vessels in the retina).

Requirements for ITDM Individuals Who Have Been Issued an Exemption To Operate CMVs
There are special conditions attached to the issuance of any exemption for ITDM. The FMCSA will impose the following requirements:

(1) Individuals with ITDM shall maintain appropriate medical supplies for glucose management while preparing for the operation of a CMV and during its operation. The supplies shall include the following:
(A) An acceptable glucose monitor with memory,
(B) Supplies needed to obtain adequate blood samples and to measure blood glucose,
(C) Insulin to be used as necessary, and
(D) An amount of rapidly absorbable glucose to be used as necessary;
(2) Individuals with ITDM shall maintain a daily record of actual driving time to correlate with the daily glucose measurements;
(3) Prior to and while driving, the individual with ITDM shall adhere to the following protocol for monitoring and maintaining appropriate blood glucose levels: Check glucose before starting to drive and take corrective action if necessary.
If glucose is less than 100 milligrams per deciliter (mg/dl), take glucose or food and recheck in 30 minutes. Do not drive if glucose is less than 100 mg/dl. Repeat the process until glucose is greater than 100 mg/dl;
While driving check glucose every two to four hours and take appropriate action to maintain it in the range of 100 to 400 mg/dl;
Have food available at all times when driving. If glucose is less than 100 mg/ dl, stop driving and eat. Recheck in 30 Minutes and repeat procedure until glucose is greater than 100 mg/dl; and If glucose is greater than 400 mg/dl, stop driving until glucose returns to the 100 to 400 mg/dl range. If more than two hours after last insulin injection and eating, take additional insulin. Recheck blood glucose in 30 minutes. Do not resume driving until glucose is less than 400 mg/dl.

Monitoring for ITDM Individuals Who Have Been Issued an Exemption To Operate CMVs
In addition to the requirements for controlling ITDM, FMCSA will monitor exemption recipients during the period that the exemption is valid. FMCSA will conduct monitoring by requiring the exemption recipients to submit the following information to the Diabetes Exemption Program, MC–PSP, Office of Bus and Truck Standards and Operations, Federal Motor Carrier Safety Administration, 400 Seventh Street, SW., Washington, DC 20590–0001:
(1) Provide written confirmation from the endocrinologist on a quarterly basis:
(A) The make and model of the glucose monitoring device with memory;
(B) The individual's blood glucose measurements and glycosylated hemoglobin are generally in an adequate range based on:
a. All daily glucose measurements taken with the glucose monitoring device and correlated with the daily records of driving time; and
b. A current measurement of glycosylated hemoglobin.
(2) Submit on an annual basis, a comprehensive medical evaluation by an endocrinologist. The evaluation will include a general physical examination and a report of glycosylated hemoglobin concentration. The evaluation will also involve an assessment of the individual's willingness and ability to monitor and manage the diabetic condition;

(3) Provide on an annual basis confirmation by an ophthalmologist or optometrist that there is no diabetic retinopathy and the individual meets the current vision standards at 49 CFR 391.41(b) (10). If there is any evidence of diabetic retinopathy, provide annual documentation by an ophthalmologist that the individual does not have unstable proliferative diabetic retinopathy;

(4) Submit annual documentation by an endocrinologist of ongoing education in management of diabetes and hypoglycemia awareness;
(5) Report all episodes of severe hypoglycemia, significant complications, or inability to manage diabetes; and
(6) Report any involvement in an accident or any other adverse event whether or not they are related to an episode of hypoglycemia.

Medical Examination-Certificate of Physical Examination for ITDM Individuals Who Have Been Issued an Exemption To Operate CMVs

Because diabetes is a chronic disease requiring constant control and monitoring, FMCSA will impose conditions on ITDM individuals, who have been issued an exemption, similar to the provisions that apply to drivers who participated in the agency's diabetes waiver program before March 31, 1996 under 49 CFR 391.64. The required conditions include the following:

(1) Each individual must have a physical examination every year:
(a) The physical examination must first be conducted by an endocrinologist indicating the driver is:
1. Free of insulin reactions. ''Free of insulin reactions'' in this context means that the individual has had:
(A) No recurrent (two or more) hypoglycemic reactions resulting in a loss of consciousness or seizure within the past five years. A period of one year of demonstrated stability is required following the first episode of hypoglycemia,
(B) No recurrent hypoglycemic reactions requiring the assistance of another person within the past five years. A period of one year of demonstrated stability is required following the first episode of hypoglycemia, and
(C) No recurrent hypoglycemic reactions resulting in impaired cognitive function that occurred without warning symptoms within the past five years. A period of one year of demonstrated stability is required following the first episode of hypoglycemia,
2. Able to and has demonstrated willingness to properly monitor and manage his/her diabetes, and
3. Will not likely suffer any diminution in driving ability due to his/ her diabetic condition; and
(b) Secondly, the physical examination must be conducted by a medical examiner who attests that the individual is physically qualified under 49 CFR 391.41, or holds a valid exemption.

(2) Each individual must agree to and must comply with the following conditions:
(a) Carry a source of rapidly absorbable glucose at all times while driving;
(b) Self-monitor blood glucose levels prior to driving and every two to four hours while driving using a portable glucose monitoring device equipped with a computerized memory;
(c) Submit blood glucose records to both the endocrinologist and medical examiner at the annual examinations or when otherwise directed by an authorized agent of FMCSA; and
(d) Provide a copy of the endocrinologist's report to the medical examiner at the time of the annual medical examination; and

(3) Each individual must provide a copy of the optometrist's or ophthalmologist's report indicating that there is no diabetic retinopathy and the individual meets the current vision standards at 49 CFR 391.41(b)(10). If there is any evidence of diabetic retinopathy, the individual must provide to the medical examiner at the time of the annual medical examination a copy of the ophthalmologist's report indicating that the individual does not have unstable proliferative diabetic retinopathy; and

(4) Each individual must provide a copy of the annual medical certification to the employer for retention in the driver's qualification file, or must keep a copy in his/her driver's qualification file if he/she is self-employed. The driver must also have a copy of the certification when driving for presentation to a duly authorized Federal, State, or local enforcement official.

SOURCE: http://www.gpo.gov/fdsys/pkg/FR-2003-09-03/pdf/FR-2003-09-03.pdf (page 137)