§ 391.43 Medical examination; certificate of physical examination.

(a) Except as provided by paragraph (b) of this section, the medical examination shall be performed by a licensed medical examiner as defined in § 390.5 of this subchapter.

(b) A licensed optometrist may perform so much of the medical examination as pertains to visual acuity, field of vision, and the ability to recognize colors as specified in paragraph (10) of § 391.41(b).
(c) Medical examiners shall:

(1) Be knowledgeable of the specific physical and mental demands associated with operating a commercial motor vehicle and the requirements of this subpart, including the medical advisory criteria prepared by the FMCSA as guidelines to aid the medical examiner in making the qualification determination; and

(2) Be proficient in the use of and use the medical protocols necessary to adequately perform the medical examination required by this section.

(d) Any driver authorized to operate a commercial motor vehicle within an exempt intracity zone pursuant to §391.62 of this part shall furnish the examining medical examiner with a copy of the medical findings that led to the issuance of the first certificate of medical examination which allowed the driver to operate a commercial motor vehicle wholly within an exempt intracity zone.

(e) Any driver operating under a limited exemption authorized by §391.64 shall furnish the medical examiner with a copy of the medical findings of the endocrinologist, ophthalmologist or optometrist, as required under that section. If the medical examiner finds the driver qualified under the limited exemption in §391.64, such fact shall be noted on the Medical Examiner’s Certificate.

(f) The medical examination shall be performed, and its results shall be recorded, substantially in accordance with the following instructions and examination form. Existing forms may be used until current printed supplies are depleted or until September 30, 2004, whichever occurs first.

INSTRUCTIONS FOR PERFORMING AND RECORDING PHYSICAL EXAMINATIONS

The medical examiner must be familiar with 49 CFR 391.41. Physical qualifications for drivers, and should review these instructions before performing the physical examination. Answer each question “yes” or “no,” and record numerical readings where indicated on the physical examination form.

The medical examiner must be aware of the rigorous physical, mental, and emotional demands placed on the driver of a commercial motor vehicle. In the interest of public safety, the medical examiner is required to certify that the driver does not have any physical, mental, or organic condition that might affect the driver’s ability to operate a commercial motor vehicle safely.

General information. The purpose of this history and physical examination is to detect the presence of physical, mental, or organic conditions of such a character and extent as to affect the driver’s ability to operate a commercial motor vehicle safely. The examination should be conducted carefully and should at least include all of the information requested in the following form. History of certain conditions may be cause for rejection. Indicate the need for further testing and/or require evaluation by a specialist. Conditions may be recorded which do not, because of their character or degree, indicate that certification of physical fitness should be denied. However, these conditions should be discussed with the driver and he/she should be advised to take the necessary steps to insure correction, particularly of those conditions which, if neglected, might affect the driver’s ability to drive safely.

General appearance and development. Note marked overweight. Note any postural defect, perceptible limp, tremor, or other conditions that might be caused by alcoholism, thyroid intoxication or other illnesses.

Head-eyes. When other than the Snellen chart is used, the results of such test must be expressed in values comparable to the standard Snellen test. If the driver wears corrective lenses for driving, these should be worn while driver’s visual acuity is being tested. If contact lenses are worn, there should be sufficient evidence of good tolerance of and adaptation to their use. Indicate the driver’s need to wear corrective lenses to meet the vision standard on the Medical Examiner’s Certificate by checking the box, “Qualified only when wearing corrective lenses.” In recording distance vision use 20 feet as normal. Report all vision as a fraction with 20 as the numerator and the smallest type read at 20 feet as the denominator. Monocular drivers are not qualified to operate commercial motor vehicles in interstate commerce.

Ears. Note evidence of any ear disease, symptoms of aural vertigo, or Meniere’s Syndrome. When recording hearing, record distance from patient at which a forced whispered voice can first be heard. 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 (sounding test 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. For the audiometric test, record decibel loss at 500 Hz, 1,000 Hz, and 2,000 Hz. Average the
decibel loss at 500 Hz, 1,000 Hz and 2,000 Hz and record as described on the form. If the individual fails the audiometric test and the whispered voice test has not been administered, the whispered voice test should be performed to determine if the standard applicable to that test can be met.

**Throat.** Note any irremediable deformities likely to interfere with breathing or swallowing.

**Heart.** Note murmurs and arrhythmias, and any history of an enlarged heart, congestive heart failure, or cardiovascular disease that is accompanied by syncope, dyspnea, or collapse. Indicate onset date, diagnosis, medication, and any current limitation. An electrocardiogram is required when findings so indicate.

**Blood pressure (BP).** If a driver has hypertension and/or is being medicated for hypertension, he or she should be recertified more frequently. An individual diagnosed with Stage 1 hypertension (BP is 140/90-159/99) may be certified for one year. At recertification, an individual with a BP equal to or less than 140/90 may be certified for one year; however, if his or her BP is greater than 140/90 but less than 160/100, a one-time certificate for 3 months can be issued. An individual diagnosed with Stage 2 (BP is 160/100-179/109) should be treated and a one-time certificate for 3-month certification can be issued. Once the driver has reduced his or her BP to equal to or less than 140/90, he or she may be recertified annually thereafter. An individual diagnosed with Stage 3 hypertension (BP equal to or greater than 180/110) should not be certified until his or her BP is reduced to 140/90 or less, and may be recertified every 6 months.

**Lungs.** Note abnormal chest wall expansion, respiratory rate, breath sounds including wheezes or alveolar rales, impaired respiratory function, dyspnea, or cyanosis. Abnormal finds on physical exam may require further testing such as pulmonary tests and/or x-ray of chest.

**Abdomen and Viscera.** Note enlarged liver, enlarged spleen, abnormal masses, bruits, hernia, and significant abdominal wall muscle weakness and tenderness. If the diagnosis suggests that the condition might interfere with the control and safe operation of a commercial motor vehicle, further testing and evaluation is required.

**Genital-urinary and rectal examination.** A urinalysis is required. Protein, blood or sugar in the urine may be an indication for further testing to rule out any underlying medical problems. Note hernias. A condition causing discomfort should be evaluated to determine the extent to which the condition might interfere with the control and safe operation of a commercial motor vehicle.

**Neurological.** Note impaired equilibrium, coordination, or speech pattern; paresthesia; asymmetric deep tendon reflexes; sensory or positional abnormalities; abnormal patellar and Babinski’s reflexes; ataxia. Abnormal neurological responses may be an indication for further testing to rule out an underlying medical condition. Any neurological condition should be evaluated for the nature and severity of the condition, the degree of limitation present, the likelihood of progressive limitation, and the potential for sudden incapacitation. In instances where the medical examiner has determined that more frequent monitoring of a condition is appropriate, a certificate for a shorter period should be issued.

**Spine.** musculoskeletal. Previous surgery, deformities, limitation of motion, and tenderness should be noted. Findings may indicate additional testing and evaluation should be conducted.

**Extremities.** Carefully examine upper and lower extremities and note any loss or impairment of leg, foot, toe, arm, hand, or finger. Note any deformities, atrophy, paralysis, partial paralysis, clubbing, edema, or hypotonia. If a hand or finger deformity exists, determine whether prehension and power grasp are sufficient to enable the driver to maintain steering wheel grip and to control other vehicle equipment during routine and emergency driving operations. If a foot or leg deformity exists, determine whether sufficient mobility and strength exist to enable the driver to operate pedals properly. In the case of any loss or impairment to an extremity which may interfere with the driver’s ability to operate a commercial motor vehicle safely, the medical examiner should state on the medical certificate “medically unqualified unless accompanied by a Skill Performance Evaluation Certificate.” The driver must then apply to the Field Service Center of the FMCSA, for the State in which the driver has legal residence, for a Skill Performance Evaluation Certificate under §391.49.

**Laboratory and Other Testing.** Other test(s) may be indicated based upon the medical history or findings of the physical examination.

**Diabetes.** If insulin is necessary to control a diabetic driver’s condition, the driver is not qualified to operate a commercial motor vehicle in interstate commerce. If mild diabetes is present and it is controlled by use of an oral hypoglycemic drug and/or diet and exercise, it should not be considered disqualifying. However, the driver must remain under adequate medical supervision.

Upon completion of the examination, the medical examiner must date and sign the form, provide his/her full name, office address and telephone number. The completed medical examination form shall be retained on file at the office of the medical examiner.
### Medical Examination Report

**FOR COMMERCIAL DRIVER FITNESS DETERMINATION**

**649-F (6045)**

#### 1. DRIVER'S INFORMATION

<table>
<thead>
<tr>
<th>Driver's Name (Last, First, Middle)</th>
<th>Social Security No.</th>
<th>Birthdate</th>
<th>Age</th>
<th>Sex</th>
<th>New Certification</th>
<th>Recertification</th>
<th>Follow-up</th>
<th>Date of Exam</th>
</tr>
</thead>
</table>

| Address | City, State, Zip Code | Work Tel: ( ) | Home Tel: ( ) | Driver License No. | License Class | State of Issue |      |            |

#### 2. HEALTH HISTORY

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

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any illness or injury in the last 5 years?</td>
<td>[ ]</td>
</tr>
<tr>
<td>Head/brain injuries, disorders or diseases</td>
<td>[ ]</td>
</tr>
<tr>
<td>Spinal, peripheral nerve deficit</td>
<td>[ ]</td>
</tr>
<tr>
<td>Eye disorders or impaired vision (except corrective lenses)</td>
<td>[ ]</td>
</tr>
<tr>
<td>Ear disorders, loss of hearing or balance</td>
<td>[ ]</td>
</tr>
<tr>
<td>High blood pressure or heart attack, other cardiovascular condition</td>
<td>[ ]</td>
</tr>
<tr>
<td>Heart surgery (valve replacement/angioplasty, pacemaker)</td>
<td>[ ]</td>
</tr>
<tr>
<td>Muscular disease</td>
<td>[ ]</td>
</tr>
<tr>
<td>Shortness of breath</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung disease, emphysema, asthma, chronic bronchitis</td>
<td>[ ]</td>
</tr>
<tr>
<td>Kidney disease, diabetes</td>
<td>[ ]</td>
</tr>
<tr>
<td>Liver disease</td>
<td>[ ]</td>
</tr>
<tr>
<td>Digestive problems</td>
<td>[ ]</td>
</tr>
<tr>
<td>Diabetes or elevated blood sugar controlled by:</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ] Pill</td>
<td>[ ] Insulin</td>
</tr>
<tr>
<td>Mental or psychiatric disorders, e.g., severe depression, medication</td>
<td>[ ]</td>
</tr>
<tr>
<td>Loss of, or altered consciousness</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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.)

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---
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.**

<table>
<thead>
<tr>
<th>Acuity</th>
<th>Uncorrected</th>
<th>Corrected</th>
<th>Horizontal Field of Vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Eye</td>
<td>20/20</td>
<td>20/20</td>
<td>Right Eye ✔</td>
</tr>
<tr>
<td>Left Eye</td>
<td>20/20</td>
<td>20/20</td>
<td>Left Eye ✔</td>
</tr>
<tr>
<td>Both Eyes</td>
<td>20/20</td>
<td>20/20</td>
<td></td>
</tr>
</tbody>
</table>

Complete next line only if vision testing is done by an ophthalmologist 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 500 Hz, -10 dB 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.**

<table>
<thead>
<tr>
<th>Blood Pressure</th>
<th>Systolic</th>
<th>Diastolic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>Category</td>
<td>Expiration Date</td>
</tr>
<tr>
<td>Right Ear</td>
<td>Left Ear</td>
<td>500 Hz</td>
</tr>
<tr>
<td>140-159/90-99</td>
<td>Stage 1</td>
<td>1 year</td>
</tr>
<tr>
<td>160-179/100-109</td>
<td>Stage 2</td>
<td>One-time certificate for 3 months.</td>
</tr>
<tr>
<td>&gt;180/110</td>
<td>Stage 3</td>
<td>6 months from date of exam if &lt;140/90</td>
</tr>
</tbody>
</table>

5. **BLOOD PRESSURE/PULSE RATE**
   Numerical readings must be recorded. Medical Examiner should take at least two readings to confirm BP.

6. **LABORATORY AND OTHER TEST FINDINGS**
   Numerical readings must be recorded.

<table>
<thead>
<tr>
<th>Urine Specimen</th>
<th>SP. GR.</th>
<th>Protein</th>
<th>Blood Sugar</th>
</tr>
</thead>
</table>

**Urine analysis 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)
### 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.

<table>
<thead>
<tr>
<th>BODY SYSTEM</th>
<th>CHECK FOR:</th>
<th>YES* NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General Appearance</td>
<td>Marked overweight, tremor, signs of alcoholism, problem drinking, or drug abuse.</td>
<td></td>
</tr>
<tr>
<td>2. Eyes</td>
<td>Pupillary equality, reaction to light, accommodation, ocular motility, ocular muscle imbalance, extracocular movement, nystagmus, exophthalmos. Ask about retinopathy, cataracts, aphakia, glaucoma, muscular degeneration and refer to a specialist if appropriate.</td>
<td></td>
</tr>
<tr>
<td>3. Ears</td>
<td>Scarring of tympanic membrane, occlusion of external canal, perforated eardrums.</td>
<td></td>
</tr>
<tr>
<td>4. Mouth and Throat</td>
<td>Irreducible deformities likely to interfere with breathing or swallowing.</td>
<td></td>
</tr>
<tr>
<td>5. Heart</td>
<td>Murmurs, extra sounds, enlarged heart, pacemaker, implantable defibrillator.</td>
<td></td>
</tr>
<tr>
<td>6. Lungs and chest, not including breast examination</td>
<td>Abnormal chest wall expansion, abnormal respiratory rate, abnormal breath sounds including wheezes or wheeze rates, impaired respiratory function, cyanosis. Abnormal findings on physical exam may require further testing such as pulmonary tests and/or x-ray of chest.</td>
<td></td>
</tr>
</tbody>
</table>

*COMMENT:*

---

**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 [ ] months [ ] months [ ] year [ ] Other

- Temporarily disqualified due to (condition or medication): [ ]
- Return to medical examiner's office for follow up on [ ]

- Wearing corrective lenses
- Weaving hearing aid
- Accompanied by a [ ] waiver/exception. Driver must present
- Exemption at time of certification
- Skill Performance Evaluation (SPE) Certificate
- Driving within an exempt intrastate 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(d). (Driver must carry certificate when operating a commercial vehicle.)
§391.43 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.

§391.45 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, 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, neurovascular, 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 visual 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.

(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) 224.5-1951.

(12) (i) Does not use a controlled substance identified in 21 CFR 1308.11 Schedule I, an amphetamine, a narcotic, or any other habit-forming drug. (ii) Exception: A driver may use such a substance or drug, 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; and (C) 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) 366-1769 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 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 limitation 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 (SPE) Certificate pursuant to Section 391.49, assuming the person is otherwise qualified.

- With 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 this loss of a foot or limb with functional impairment to qualify under the Federal Motor Carrier Safety Regulations (FMCSRs) by use of prosthetic devices or equipment modifications which enable them to safely operate a commercial motor vehicle. Since there are no medical aids equivalent to the original body or limb, certain risks are still present, and thus restrictions may be included on individual SPE certificates when a State Director for the FMCSA determines they are necessary to be consistent with safety and public interest.

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

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 illnesses, 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 (202) 366-1760 for an application for a diabetes exemption.

(See Diabetic Disorders and Commercial Drivers and Insulin Using Commercial Motor Vehicle Drivers at: http://www.fmcsa.dot.gov/rulesregs/medsports.htm etc.).

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) 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
accompanying by it 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 FMCES 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 rules 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 (EKG), 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 Cardiovascular Advisory Panel Guidelines for the Medical examination of Commercial Motor Vehicle Drivers at: http://www.fmcsa.dot.gov/medical/prescriptions.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 asphyxia, 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/medical/prescriptions.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 below 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 of 140/90 or less, he or she may be certified for one year from date of the initial exam. The driver is certified for one year thereafter.

A blood pressure of 180 or greater systolic and 110 or greater diastolic is considered Stage 3, high risk for acute BP-related event. The driver may not be certified, even temporarily, until reduced to 140/90 or less and treatment is well tolerated. The driver may be certified for 6 months and then every 6 months thereafter if at checkout 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 particularly undesirable in commercial drivers.

Secondary hypertension is based on the above stages. Evaluation is warranted if patient is persistently hypertensive on maximal or near-maximal doses of 2-3 pharmacologic agents. Some causes of secondary hypertension may be amenable to surgical intervention or specific pharmacologic disease.

(See Cardiovascular Advisory Panel Guidelines for the Medical Examination of Commercial Motor Vehicle Drivers at: http://www.fmcsa.dot.gov/medical/prescriptions.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 weaknesses, poor muscular coordination (obese), abnormal sensations (paresthesias), 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 onset 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/medical/prescriptions.htm)
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Epilepsy §391.41(b)(7)

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

Has no established medical history of epilepsy or any other condition which is likely to cause loss of consciousness or 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; or (2) a driver who has a current clinical diagnosis of epilepsy, or (3) a driver who is taking antiepileptic medication.

If an individual has had a sudden episode of a nonepileptic seizure or loss of consciousness of unknown cause which did not require antiepileptic 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. If the examiner determines that the individual has a complete neurological examination and that if the examination is negative and antiepileptic 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 malnutrition), the condition should be deferred until the driver has fully recovered from that condition and has no existing residual complications, and not taking antiepileptic medication.

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 psychotic disorder likely to interfere with ability to drive a motor vehicle safely.

Emotional or adjustment problems contributing to an individual's level of memory, reasoning, attention, and judgment. These problems often underlie physical disorders. A variety of physical disorders can cause drowsiness, dizziness, confusion, weakness or paralyses that may lead to incoordination, inattention, loss of functional control and susceptibility to accidents while driving. Physical fatigue, headache, impaired coordination,numbing physical ailments may or may not be a problem in such a degree that certification for commercial driving is questionable. Somatic and psychological problems associated with emotional instability may be examined when determining an individual's overall fitness to drive.

Disorders of a personality involving impairing nature, even in the early stages of development, may warrant disqualification.

Many drug and alcohol drivers have documented that “nervous trouble” related to neuromuscular, 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 instinctive 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 for specific recommendations on the use of medications and potential hazards for driving.

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, or any similar combination, even though he or she may have some type of color perception deficiency.

Drivers of a color vision deficiency (Red- Green, Blue- Yellow, Protanot, Amaranth, or Red- Green) 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 (222) 355-1790 for an application for a vision exemption.

Hearing §391.41(b)(11)

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

Fails a forced whispered voice test 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 50 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) 224.5-1951.

Since the prescribed standard under the FMCSRs is the American Standards Association ANSI, it may be necessary to convert the audiometric results from the ANSI standard to the ANSI standard. Instructions are included in 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 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 69, 18,

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

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Drug Use

(a)(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.

(a)(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 of the examination.

(6) If the medical examiner finds that the person examined is physically qualified to operate a commercial motor vehicle, the medical examiner should retain a copy of the medical certificate.

(7) 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 of the examination.

23. et al. The examiner should not use only diaries (i.e., notarized 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 of Qualification only when wearing a hearing aid:

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3-years from the date the certificate was issued.

(h) The medical examiner’s certificate shall be substantially in accordance with the following form. Existing forms may be used until current printed supplies are depleted or until November 6, 2001, whichever occurs first.
### MEDICAL EXAMINER'S CERTIFICATE

I certify that I have examined in accordance with the Federal Motor Carrier Safety Regulations (49 CFR 391.41-391.49) and with knowledge of the driving duties, I find this person is qualified, and, if applicable, only when:

- [ ] wearing corrective lenses
- [ ] wearing hearing aid
- [ ] accompanied by a waiver/exemption
- [ ] driving within an exempt intracy zone (49 CFR 391.62)
- [ ] accompanied by a Skill Performance Evaluation Certificate (SPE)
- [ ] Qualified by operation of 49 CFR 391.64

The information I have provided regarding this physical examination is true and complete. A complete examination form with any attachment embodies my findings completely and correctly, and is on file in my office.

<table>
<thead>
<tr>
<th>SIGNATURE OF MEDICAL EXAMINER</th>
<th>TELEPHONE</th>
<th>DATE</th>
</tr>
</thead>
</table>

MEDICAL EXAMINER'S NAME (PRINT)

- [ ] MD
- [ ] DO
- [ ] Chiropractor
- [ ] Physician Assistant
- [ ] Advanced Practice Nurse

MEDICAL EXAMINER'S LICENSE OR CERTIFICATE NO. / ISSUING STATE

<table>
<thead>
<tr>
<th>SIGNATURE OF DRIVER</th>
<th>DRIVER'S LICENSE NO.</th>
<th>STATE</th>
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ADDRESS OF DRIVER

MEDICAL CERTIFICATE EXPIRATION DATE

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