NATIONAL REGISTRY OF MEDICAL EXAMINER CERTIFICATION TRAINING MANUAL
PART I
Federal Motor Carrier Safety Administration
Department of Transportation
History, Mission, Goals, Rationale
Federal Motor Carrier Safety Administration

On December 9, 1999, President Clinton signed into law the Motor Carrier Safety Improvement Act. This act transferred the Office of Motor Carriers from the Federal Highway Administration and established the Federal Motor Carrier Safety Administration (FMCSA). FMCSA is one of nine U.S. Department of Transportation (DOT) administrations. To learn more, visit the DOT Agencies Web page.

FMCSA is headquartered in Washington, DC and employs people in 50 States and the District of Columbia. FMCSA is led by an Administrator, Deputy Administrator, and Chief Safety Officer. The Office of Medical Programs is located under the Associate Administrator for Policy and Program Development. Organizational Chart)

FMCSA partners and customers are serviced by field organizations. The organizations consist of Field Operations, Service Centers, and State-level motor carrier division offices. Field Offices)

FMCSA activities contribute to ensuring safety in motor carrier operations through enforcement of safety regulations; targeting high-risk carriers and commercial motor vehicle (CMV) drivers; improving safety information systems and CMV technologies; strengthening CMV equipment and operating standards; and increasing safety awareness.

"The FMCSA is focused on reducing crashes, injuries, and fatalities involving large trucks and buses."

In carrying out its safety mandate to reduce crashes, injuries, and fatalities involving large trucks and buses, FMCSA:

- Develops and enforces data-driven regulations that balance motor carrier (truck and bus companies) safety with industry efficiency.
- Harnesses safety information systems to focus on higher-risk carriers in enforcing safety regulations.
- Targets educational messages to carriers, commercial drivers, and the public.
- Partners with stakeholders including Federal, State, and local enforcement agencies, the motor carrier industry, safety groups, and organized labor on efforts to reduce bus and truck-related crashes. FMCSA Web site
Office of Medical Programs

"The mission of the Office of Medical Programs is to promote the safety of America's roadways through the promulgation and implementation of medical regulations, guidelines and policies that ensure commercial motor vehicle drivers engaged in interstate commerce are physically qualified to do so."

To promote safety, the Office of Medical Programs:

- Oversees the national medical certification process for CMV drivers who operate in interstate commerce.
- Develops and implements medical regulations, policies, and procedures.
- Oversees and supports the Medical Review Board in accordance with the Federal Advisory Committee Act.
- Develops and implements the national registry program — a national medical examiner system and a linked national driver medical reporting system.
- Conducts and oversees the Agency's medical exemption and certificate programs.
- Serves as the lead Federal agency for the regulation of CMV driver health and safety and conducts relevant medical research.

National Registry of Certified Medical Examiners

"The primary mission of the National Registry of Certified Medical Examiners is to improve highway safety by producing trained, certified medical examiners who can effectively determine if a commercial motor vehicle driver's health meets FMCSA standards."

FMCSA has established the National Registry of Certified Medical Examiners (NRCME) program.

Certified medical examiners will:

- Demonstrate an understanding of FMCSA physical qualification requirements and the demands of commercial driving, driver tasks, and the work environment.
- Perform driver certification examinations in accordance with FMCSA physical qualification requirements and medical guidelines.
Who Can Be A Medical Examiner

The FMCSA Regulations identify a person who can be a medical examiner by two criteria: professional licensing and scope of practice that includes performing physical examinations.

**Medical Examiner** (ME) means a person who is licensed, certified, and/or registered, in accordance with applicable State laws and regulations, to perform physical examinations. The term includes, but is not limited to, doctors of medicine and osteopathy, advanced practice nurses, physician assistants and chiropractors. [49 CFR 390.5 Definitions](#)

The FMCSA rule for the NRCME requires healthcare professionals to be trained, certified and listed on a national registry (registry) to perform physical examinations of truck and bus drivers.

When is Medical Certification Required

Medical certification in accordance with FMCSA physical qualification standards is required when the driver is operating a commercial vehicle in interstate commerce that:

- Has a combined gross vehicle weight or weight rating of 10,001 lbs. or more.
- Is designed or used to transport 9-15 passengers (including the driver) for compensation.
- Is designed or used to transport 16 or more passengers (including the driver) whether for compensation or not.
- Transports hazardous materials in quantities that require placarding under the hazardous materials regulations.

When a driver returns from an illness or injury that interferes with driving ability, the driver must undergo a medical examination even if the medical examiner's certificate has not expired.

The ME is responsible for certifying only drivers who meet the physical qualification standards. Certification cannot exceed 2 years, and at the discretion of the FMCSA ME, may be less than 2 years. Federal Vision and Diabetes Exemption Programs require annual medical certification.

The CMV driver’s certificate expires at midnight of the day, month, and year written on the certificate. There is no grace period on the expiration. Drivers must be re-examined and recertified to continue to drive legally.
Important Definitions
The ME should become familiar with frequently used terms in the context of the FMCSA Regulations and the ME role. Select terms from 49 CFR 390.5 and 49 CFR 40 follow.

49 CFR 390.5 Definitions

Commercial Motor Vehicle (CMV):
Commercial motor vehicle means any self-propelled or towed motor vehicle used on a highway in interstate commerce to transport passengers or property when the vehicle:

1. Has a gross vehicle weight rating or gross combination weight rating, or gross vehicle weight or gross combination weight, of 4,536 kg (10,001 pounds) or more, whichever is greater; or
2. Is designed or used to transport more than 8 passengers (including the driver) for compensation; or
3. Is designed or used to transport more than 15 passengers, including the driver, and is not used to transport passengers for compensation; or
4. Is used in transporting material found by the Secretary of Transportation to be hazardous under 49 U.S.C. 5103 and transported in a quantity requiring placarding under regulations prescribed by the Secretary under 49 CFR, subtitle B, chapter I, subchapter C.

Driver:
Driver means any person who operates any commercial motor vehicle.

Interstate Commerce:
Interstate commerce means trade, traffic, or transportation in the United States:

1. Between a place in a State and a place outside of such State (including a place outside of the United States);
2. Between two places in a State through another State or a place outside of the United States; or
3. Between two places in a State as part of trade, traffic, or transportation originating or terminating outside the State or the United States.

Intrastate Commerce:
Intrastate commerce means any trade, traffic, or transportation in any State which is not described in the term "interstate commerce."
Medical Examiner (ME):
Medical examiner means a person who is licensed, certified, and/or registered, in accordance with applicable State laws and regulations, to perform physical examinations. The term includes, but is not limited to, doctors of medicine and osteopathy, advanced practice nurses, physician assistants and chiropractors.

Motor Carrier:
Motor carrier means a for-hire motor carrier or a private motor carrier. The term includes a motor carrier’s agents, officers, and representatives as well as employees responsible for the hiring, supervising, training, assigning, or dispatching of drivers and employees concerned with the installation, inspection, and maintenance of motor vehicle equipment and/or accessories. For purposes of subchapter B, this definition includes the terms "employer" and "exempt motor carrier."

49 CFR 40.3 What Do the Terms Used in This Regulation Mean?
The Omnibus Transportation Employee Testing Act requires drug and alcohol testing of safety-sensitive transportation employees in aviation, trucking, railroads, mass transit, pipelines, and other transportation industries. The DOT publishes rules on who must conduct drug and alcohol tests, how to conduct those tests, and what procedures to use when testing. There are times when a ME may have interactions with healthcare professionals who perform services in the drug and alcohol testing program.

Medical Review Officer (MRO):
A person who is a licensed physician and who is responsible for receiving and reviewing laboratory results generated by an employer drug-testing program and evaluating medical explanations for certain drug test results.

Substance Abuse Professional (SAP):
A person who evaluates employees who have violated DOT drug and alcohol regulations and makes recommendations concerning education, treatment, follow-up testing, and aftercare.

Privacy and Medical Examinations
Regulatory requirements take precedence over the Health Insurance Portability and Accountability Act (HIPAA) of 1996. There are potential subtle interpretations that can cause significant problems for the ME. What information must or can be related to or shared with the carrier is a legal issue, and if in doubt, the examiner should obtain a legal opinion.
Medical Examination Report Form

Although the FMCSA Regulations do not require the ME to give a copy of the Examination Report form to the employer, the FMCSA does not prohibit employers from obtaining copies. ME’s should have appropriate release forms signed by the driver if the employer wishes to obtain a copy of the Examination Report form.

Employers must comply with applicable State and Federal laws regarding the privacy and maintenance of employee medical information.

For information about the provisions of the Standards for Privacy of Individually Identifiable Health Information (the Privacy Rule) contact the U.S. Department of Health & Human Services, Office of Civil Rights at the HIPAA Web site. The HIPAA toll-free information line is: 1-866-627-7748.

Medical Examiner’s Certificate

49 CFR 391.43(g) addresses the distribution of the ME’s certificate. If the ME finds that the driver is physically qualified to drive a CMV in accordance with §391.41(b), the ME shall complete a certificate and furnish one copy to the driver and one copy to the motor carrier. A release form is not required. The motor carrier is required to keep a copy of the certificate in the driver qualification file.

The ME should keep a copy of the drivers certificate on file. The driver may request a replacement copy of the certificate from the ME or get a copy from the motor carrier.

Medical Regulations Summary

Code of Federal Regulations - Law

The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal government. It is divided into 50 titles that represent broad areas subject to Federal regulation. Title 49 is Transportation.

Each title is divided into chapters, which usually bear the name of the issuing agency. Chapter III of Title 49 is the "Federal Motor Carrier Safety Administration, Department of Transportation."

Each chapter is further subdivided into parts that cover specific regulatory areas. Part 391 is Qualifications of Drivers and Longer Combination Vehicle (LCV) Driver Instructors. Large parts may be subdivided into subparts. Subpart E of Part 391 is Physical Qualifications and Examinations.

Parts are organized in sections. Citations for the CFRs include the title, part, and section numbers (e.g., 49 CFR 391.41). When the title is understood, the citation may just include the part and section (e.g., §391.41).
Medical Standards/Advisory Criteria/Guidelines

Standards or FMCSA Regulations are legal requirements for interstate commercial vehicles, drivers, and motor carriers. The Regulations are law and must be followed.

The FMCSA provides medical guidelines and advisory criteria to assist in the evaluation of medical fitness to operate a commercial bus or truck. These guidelines are based on expert review and considered best practice. The examiner may or may not choose to use these recommended guidelines. When the certification decision does not conform with recommendations, the reason(s) for not following the medical guidelines should be included in the documentation.

Medical Regulations Summary Table

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<td>49 CFR 391.41</td>
<td>Describes the physical qualification requirements for drivers. Thirteen standards are used to determine driver medical fitness for duty. Four of the standards: vision, hearing, epilepsy, and diabetes mellitus have objective disqualifiers that do not depend on ME clinical interpretation. These standards are the &quot;non-discretionary&quot; standards. For the other nine &quot;discretionary&quot; standards, the ME makes a clinical judgment in accordance with the physical qualification requirements for driver certification.</td>
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<td>49 CFR 391.43</td>
<td>Describes the responsibilities of the ME, including general instructions for performing the medical examination, a description of driver tasks and work environment, medical advisory criteria, the sample Examination Report form, and the ME’s certificate.</td>
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<td>49 CFR 391.45</td>
<td>Identifies who must have the CMV driver physical examination.</td>
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<td>49 CFR 391.47</td>
<td>Describes the process for conflict resolution when there is a disagreement between the primary care provider for the driver and the ME for the motor carrier concerning driver qualifications.</td>
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<tr>
<td>49 CFR 391.49</td>
<td>Describes the Skill Performance Evaluation (SPE) Certification Program, which is an alternative physical qualification standard for the driver with a fixed musculoskeletal deficit of an extremity who cannot physically qualify to drive under §391.41(b)(1) or (b)(2). The driver must be otherwise qualified to drive a CMV and meet the provisions of the alternate standard. The first program to address fixed musculoskeletal deficits was created and administered by the Interstate Commerce Commission (ICC) in 1964 and was known as the Handicapped Driver Waiver Program. See Skill Performance Evaluation Certification Program (SPE) History.</td>
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<tr>
<td>49 CFR 391.62</td>
<td>Describes limited exemptions for intra-city zone drivers.</td>
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<td>49 CFR 391.64</td>
<td>Describes grandfathering for certain drivers who participated in vision and diabetes waiver study programs. These drivers may be certified as long as they continue to meet the provisions outlined in 49 CFR 391.64 and continue to meet all other qualification standards.</td>
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<tr>
<td>49 CFR 390</td>
<td>Includes general information and definitions.</td>
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**Exemptions:**

An exemption provides temporary regulatory relief from one or more of the FMCSR s for commercial drivers. Relief from a regulation is for 2 years and may be renewed. Currently, FMCSA has two medical Driver Exemption Programs:

- Diabetes Exemption Program (September 2003).

The ME cannot issue an exemption. The role of the ME is to determine if the driver is "otherwise qualified." As part of the application procedure, the driver must obtain a medical examination, whereby the ME determines whether the driver is "otherwise qualified" if accompanied by the Federal vision or diabetes exemption. Both Federal exemptions require the driver to have an annual medical examination for maintenance and renewal of the exemption.
Part II
The Job of Commercial Motor Vehicle Drivers
FMCSA Regulates Interstate Commercial Operation

The FMCSA regulates interstate commercial operations, including the drivers, the trucks and buses the drivers operate, the motor carrier, and the transportation of hazardous materials in a quantity requiring placards. A safety risk in any one or more of these commercial operations components can endanger the safety and health of the public.

Drivers

Approximately 6 to 7 million CMV drivers are required to comply with FMCSA physical qualification standards. Thus, an estimated 3 to 4 million physical examinations must be performed annually, with the demand increasing every year.

In addition to medical fitness for duty certification, other regulations affecting the CMV driver include drug and alcohol testing, record keeping, hours of service, and more.

Vehicles

CMVs include trucks and buses subject to regulations governing inspection, repair, and maintenance.

Motor carriers, both for-hire and private, must comply with FMCSA regulations governing their drivers and levels of financial responsibility.

In the FMCSA Regulations, the term "motor carrier" refers to:

- Agents for motor carriers.
- Officers.
- Representatives.
- Employees responsible for the hiring, supervising, training, assigning, and dispatching of drivers.
- Employees concerned with the installation, inspection, and maintenance of motor vehicle equipment and accessories.
- Employers.
- Exempt motor carriers.

Motor carriers are responsible for ensuring that the driver meets the general qualification requirements of 49 CFR 391. The driver must:

- Be at least 21 years old.
The Driver and Driver Role

The Driver Is Certified

49 CFR 391 Qualifications of drivers and longer combination vehicle (LCV) driver instructors establishes the minimum qualifications for persons who drive CMV’s. There are seven subparts. As a ME, you should be knowledgeable regarding the physical qualification requirements of the driver specified in Subpart E — Physical qualifications and examinations.

ME’s are responsible for ensuring that only drivers who meet the Federal physical qualification requirements are issued an Examiner’s Certificate. When ME’s issue the Certificate, they are certifying that the driver is medically fit for duty and can perform the driver role that is described in the Medical Examination Form (PDF). ME’s may certify the driver for a maximum of 2 years. They may also, at any time, certify the driver for less than 2 years when examination indicates more frequent monitoring is required to ensure medical fitness for duty.

Drivers are responsible for maintaining medical certification and carrying the Examiner’s Certificate while operating a CMV.

The Average Driver

The driver population exhibits characteristics similar to the general population, including an aging work force. Aging means a higher risk exists for chronic diseases, fixed deficits, gradual or sudden incapacitation, and the likelihood of co-morbidity. All of these can interfere with the ability to drive safely, thus endangering the safety and health of the driver and the public.

The profile of the average truck or bus driver:

- Male.
- More than 40 years of age.
- Sedentary.
- Overweight.
- Smoker.
- Poor eating habits.

The medical profile:

- Less healthy than the average person.
- More than two medical conditions.
- Cardiovascular disease prevalent.
The Job of Commercial Driving
Stress Factors Associated with Commercial Driving

- **Types of routes** — **Turn-around** or **short relay** routes allow the driver to return home each evening. A **long relay** route requires driving 9 to 11 hours, followed by at least a 10-hour, off-duty period. Several days may elapse before the driver returns home. With a **straight through haul** or **cross-country** route, the driver may spend a month on the road, dispatched from one load to the next. The driver usually sleeps in the truck and returns home for only 4 or 5 days before leaving for another extended period on the road. In team operation, drivers share the driving by alternating 5-hour driving periods with 5-hour rest periods.

- **Schedules** — Abrupt schedule changes and rotating work schedules may result in irregular sleep patterns and a driver beginning a trip already fatigued. Tight pickup-and-delivery schedules require both day and night driving. Failure to meet schedules may result in a financial loss for the driver. Long hours and extended time away from family and friends may result in a lack of social support.

- **Environment** — The driver may be exposed to excessive vehicle noise, vibration, and extremes in temperature. The driver may encounter adverse road, weather, and traffic conditions that cause unavoidable delays.

- **Types of cargo** — The driver of a bus is responsible for passenger safety. Transporting passengers also demands effective social skills. Loss of or shifting cargo while driving can result in serious accidents. Transporting hazardous materials, including explosives, flammables, and toxics, increases the risk of injury and property damage extending beyond the accident site.

Driving and Other Tasks

- **Stay alert when driving** — Driving demands sustained mental alertness and physical endurance that is not compromised by fatigue or sudden, incapacitating symptoms. Required cognitive skills include problem solving, communication, judgment, and appropriate behavior in both normal and emergency situations. Driving requires the ability to judge the maximum speed at which vehicle control can be maintained under changing traffic, road, and weather conditions.

- **Use side mirrors** — Mirrors on both sides of the vehicle are used to monitor traffic that can move into the blind spot of the driver. Mirrors are also used in backing up trucks to loading and unloading areas. Sufficient lateral cervical mobility is needed for effective use of side mirrors.
- **Control steering wheel** — Steering wheels of large trucks and buses are oversized. The act of steering can be simulated by offering resistance, while having the driver imitate the motion pattern necessary to turn a 24-inch steering wheel.

- **Manipulate dashboard switches and controls** — Large trucks and buses are complex vehicles with multiple dashboards, switches, and knobs. Use of these components requires adequate reach, prehension, and touch sensation in hands and fingers.

- **Shift gears** — The manual transmission of a large truck may have more than 20 gears. This requires the driver to repeatedly perform reciprocal movements of both legs coordinated with right arm and hand movements.

- **Enter and exit vehicle** — The driver may have to enter and exit the vehicle similar to the same way an individual climbs a ladder: by maintaining three points of contact for safety. Full overhead extension may be required to reach handholds. Hip angle and knee flexion may have to exceed 90°.
Perform vehicle checks — Grip strength, upper and lower body strength, range of motion, balance, and flexibility are required to inspect the engine, brakes, and cargo. Vision and hearing are used to identify and interpret changes in vehicle performance.

Coupling and uncoupling the trailers — Multiple sub-tasks are performed in the process of coupling and uncoupling a trailer, including raising and lowering the trailer supports, connecting air lines and electrical cables, and checking the height of the trailer kingpin. Physical demands include grip strength, upper body strength, full range of motion, balance, and flexibility.

Load, secure, and unload cargo — FMCSA guidelines do not specify the number of pounds a driver must be able to lift. However, the Centers for Disease Control and Prevention (CDC) table of General Physical Activities Defined by Level of Intensity lists "loading and unloading a truck” as an example of a vigorous activity that requires the individual to exert greater than 6.0 metabolic equivalents (MET) in performance of the activity.

**FMCSA Commercial Driving Facts & Research**

The FMCSA Office of Analysis, Research, and Technology (ART) provides the transportation industry and the public with analytical reports on trends, costs, fatalities, and injuries in large truck and bus crashes. ART research and data help identify factors that contribute to crashes. FMCSA uses this information to develop effective countermeasures that will reduce the occurrence and severity of crashes.
The ART office prepares all economic and environmental analysis for FMCSA rulemakings to ensure that changes to motor carrier regulations are based on sound data and analysis.

**Crashes, Injuries, and Fatalities**

The FMCSA is dedicated to lowering the rate of crashes, injuries, and fatalities involving large trucks and buses. When a fatal crash involves a large truck, regardless of the cause, occupants of passenger vehicles are more likely to sustain serious injury or die than the occupants of the truck.

Why are the death rates of occupants in passenger vehicles so high? The answer is found in basic physics: injury severity equals relative velocity change. The greater the mass, the less relative velocity change. The crash of a vehicle having twice the mass with a lighter vehicle equals a six-fold risk of death to persons in the lighter vehicle. A sport utility vehicle (SUV) weighs approximately 4,000 pounds. A loaded semi-truck weighs roughly 80,000 pounds. The truck has 20 times the mass of the SUV.
In addition to the grievous toll in human life and survivor suffering, the economic cost of these crashes is exceedingly high.
Part III
Medical Examiner Responsibilities
Driver ID & History
Medical Examiner Responsibilities

Section 49 CFR 391.43 *Medical Examination: Certificate of Physical Examination* describes ME responsibilities to determine the medical fitness-for-duty and the issuing of Certificates to CMV drivers who meet the physical qualification standards.

Purpose of Interstate Commercial Driver Physical Examination

FMCSA describes the periodic physical qualification examination of the interstate CMV driver to be a "medical fitness-for-duty" examination. The purpose of the physical examination is to detect the presence of any physical, mental, or organic conditions of such character and extent as to affect the ability of the driver to operate a CMV safely.

As a ME, your fundamental obligation is to establish whether a driver has a disease, disorder, condition or injury that creates a higher than acceptable likelihood for gradual or sudden incapacitation or sudden death, thus endangering public safety.

Issue Is Risk

Risk is the probability of an event occurring within a certain period of time. Determining "acceptable risk" is both a medical and societal decision.

**Does the Driver Pose a Risk to Public Safety?**

As a ME, any time you answer “yes“ to the above question, you should not certify the driver as medically fit for duty.

As you conduct the examination to determine if the driver is medically fit to perform the job of commercial driving, you must consider:

- Physical Condition.
  - Symptoms — Does a medical condition have symptoms that could interfere with the ability to safely drive (e.g., a benign supraventricular arrhythmia that causes syncope)?
  - Incapacitation — Is the onset of symptoms so rapid as to interfere with safe driving, can the driver stop the vehicle safely before becoming incapacitated? Is the onset of incapacitating symptoms so gradual that the driver could be unaware of diminished capabilities, thus adversely impacting safe CMV driving?

- Mental Condition.
  - Cognitive — Can the driver process environmental cues rapidly and make appropriate responses, independently solve problems, and function in a dynamic environment?
  - Behavior — Are driver interactions appropriate, responsible, and nonviolent?
• Medical Treatment.
  o Effects — Does treatment allow the driver to perform tasks safely?
  o Side effects — Do treatment or medication side effects interfere with safe driving (e.g., drowsiness, dizziness, orthostatic hypotension, blurred vision, and changes in mental status)?

Medical Examiner Do's

As the ME, you are examining for medical fitness-for-duty, not diagnosing and treating personal medical conditions. Nonetheless, you have a responsibility to educate and refer the driver for further evaluation if you suspect an undiagnosed or worsening medical problem. Keep the following in mind—

DO:

• Comply with FMCSA regulations.
• Seek further testing/evaluations for those medical conditions of which you are unsure.
• Refer the driver to his/her personal health-care provider for diagnosis and treatment of potential medical conditions discovered during your examination.
• Promote public safety by educating the driver about:
  o Side effects caused by prescription and/or over-the-counter medications.
  o Medication warning labels and how to read them.
  o The importance of seeking appropriate evaluation for non-disqualifying medical conditions, especially those that, if neglected, could lead to illness and possible future disqualification.
Examination Report Form

As a ME, you must perform the driver physical examination and record the findings in accordance with the instructions on the Examination Report form. You may use an equivalent examination report form, as long as all elements of the Report form posted in 49 CFR 391.41 are included.

Driver certification is determined based on whether or not the driver meets the requirements of the FMCSA physical qualification standards cited in 49 CFR 391.41.

The purpose of this overview is to familiarize you with the sections and data elements on the Examination Report form, including, but not limited to:

- Organization of the form.
- Required signatures.
- Minimum documentation.

Driver Identity Information and Health History on the Examination Report Form

The driver completes the identity section, but you, as the ME, must review the data to assure the information is legible and the section is completed.

- Driver Name (Last, First, Middle), *Verify that the order is correct*
- Social Security Number (SSN)
- Birthdate (Month, Day, Year), *Verify that the order is correct*
- Age, *Verify that the birth date agrees with the age given.*

**NOTE:** The motor carrier is responsible for ensuring that the driver meets CDL requirements and is 21 years of age before driving an interstate commercial motor vehicle (CMV). The ME can administer the driver examination to anyone who requests the examination.

- Sex (Gender)
- Type of Certificate

A complete physical examination is required for both a "New Certification" and "Recertification."

"Follow-up" is used if further information is needed before you can make a certification determination. It is a continuation of your original new or recertification examination. You need not perform the entire physical examination again.

Date of Exam
The medical examiner's certificate expiration date is calculated from the date of the "New Certification" or "Recertification" examination, not the date of any subsequent "Follow-up" examination.

- Address
- Telephone Numbers
- Driver License No., License Class, and State of Issue
Health History — Driver Instructions

The driver is instructed to indicate either an affirmative or negative history for each statement in the health history by checking either the "Yes" or "No" box.

The driver is also instructed to provide additional information for "Yes" responses, including:

- Onset date.
- Diagnosis.
- Treating provider contact information.
- Any limitations resulting from a current or past medical condition.
- Medications used regularly or recently, including prescriptions, over-the-counter, and herbal supplements.

Health History — Driver Signature

Verify the Driver Signs Medical Examination Report Form

By signing the Examination Report form, the driver:

- Certifies that information is “complete and true.”
- Acknowledges that providing inaccurate or false information or omitting information could:
  - Invalidate the examination and any certificate issued based on it.
  - Result in the levy of a civil penalty against the driver under 49 U.S.C. 521(b)(2)(B).
Medical Examination Report (MER) Form, MCSA-5875

Driver Completes Page 1 – Medical Report Form MEC
Health History — Medical Examiner Responsibilities

The purpose of the health history is to obtain information relevant to detecting the presence of physical, mental, or organic conditions of such character and extent as to affect the ability of the driver to operate a CMV safely.

Regulations — You must review and discuss with the driver any "Yes" answers

For each "Yes" answer:

- Ask about history, diagnosis, treatment, and response to treatment.
- Explore underlying cause, precipitating events, and other pertinent facts.
- Obtain additional tests or consultations, as necessary, to adequately assess the medical fitness of the driver.
- Review and discuss the driver’s response to treatment and medications currently or recently used, including over-the-counter medications, and discuss any potential effects and side effects.
that may interfere with driving. As needed, you should also educate the driver regarding drug interactions with other prescription and nonprescription drugs and alcohol.

- Write all information on the Examination Report form.

For information on a specific medical condition, see Part IV - Physical Qualification Standards of this handbook.

**Recommendations — Questions you may consider:**

**Does the driver have:**

- **Symptoms that interfere with safe driving because of:**
  - Frequency?
  - Duration?
  - Severity?
  - Onset?

- **Limitations that interfere with safe driving because of:**
  - Degree of limitation present?
  - Likelihood of progressive limitation?

- **Medications that when used have effects and side effects that interfere with driving ability, such as:**
  - Visual disturbances.
  - Drowsiness.
  - Hypotension.
  - Behavioral changes.

**Health History — Overview**

In addition to the guidance provided in the section above, For each "Yes" answer, directions specific to each category in Column 1 are listed below. Feel free to ask other questions to help you gather sufficient information to make your qualification/disqualification decision.

**Any illness or injury in the last 5 years**

A driver must report any condition for which he/she is currently under treatment. The driver is also asked to report any illness/injury he/she has sustained within the last 5 years, whether or not currently under treatment.

**Head/brain injuries, disorders, or illnesses**
Ask questions that help you determine if the driver has recurring episodes of illness or any residual physical, cognitive, or behavioral effects that interfere with the ability to safely operate a CMV.

**Seizures, epilepsy**

Ask questions to ascertain whether the driver has a diagnosis of epilepsy (two or more unprovoked seizures), or whether the driver has had one seizure. Gather information regarding type of seizure, duration, frequency of seizure activity, and date of last seizure.

**REMEMBER:** According to regulation, a driver with an established medical history or clinical diagnosis of epilepsy does not meet qualification standards and cannot be certified.

**Eye disorders or impaired vision (except corrective lenses)**

Ask about changes in vision, diagnosis of eye disorder, and diagnoses commonly associated with secondary eye changes that interfere with driving. Complaints of glare or near-crashes are driver responses that may be the first warning signs of an eye disorder that interferes with safe driving.

**REMEMBER:** The requirements for vision screening are regulatory.

**Ear disorders, loss of hearing or balance**

Ask about changes in hearing, ringing in the ears, difficulties with balance, or dizziness. Loss of balance while performing non-driving tasks can lead to serious injury of the driver.

**REMEMBER:** The screening requirement for hearing loss is regulatory.

**Heart disease or acute myocardial infarction, other cardiovascular conditions**

Ask about history and symptoms of cardiovascular disease (CVD), syncope, dyspnea, congestive heart failure, angina, etc.

**NOTE:** If the driver reports symptoms consistent with undiagnosed CVD, you should refer the driver to a specialist for further evaluation prior to certification. If a driver reports current CVD, consult with the driver’s health-care provider and obtain documentation prior to certification.

**Heart surgery**

Ask about history of heart surgery, bypass, valve replacement, pacemaker, angioplasty, and whether the driver has an implantable cardioverter defibrillator (ICD). Obtain heart surgery information, including such pertinent reports, cardiac catheterization reports, stress tests, as needed, to adequately assess medical fitness for duty.

**NOTE:** If a driver gives a “Yes” answer to the question regarding heart surgery, obtain documentation from the cardiologist before certifying. Also, FMCSA medical guidelines recommend not to certify the driver who has an ICD, due to risk of syncope and gradual or sudden incapacitation while driving a CMV. This includes a dual pacemaker/ICD, even if the ICD has not been activated.

**High blood pressure**
Ask about the history, diagnosis, and treatment of hypertension. In addition, talk with the driver about his/her response to prescribed medications.

Hypertension alone is unlikely to cause sudden collapse. The likelihood increases, however, when there is target organ damage, particularly cerebral vascular disease. Recommending specific therapy is beyond the scope of the physical examination. As a medical examiner, though, you are concerned with the blood pressure response to treatment, and whether the driver is free of any effects or side effects that could impair job performance.

**Muscular disease**

Ask the driver about history, diagnosis, and treatment of musculoskeletal conditions, such as rheumatic, arthritic, orthopedic, and neuromuscular diseases. Does the diagnosis indicate that the driver is at risk for sudden, incapacitating episodes of muscle weakness, ataxia, paresthesia, hypotonia, or pain? Does the diagnosis indicate a degenerative process that over time will restrict movements and eventually interfere with the ability to safely operate a CMV?

**Shortness of breath (SOB)**

Ask what activities precipitate the episodes, nature, and characteristics of SOB. Does the driver experience SOB only with exertion or also when at rest?

**NOTE:** According to guidelines, many drivers may experience SOB while performing the non-driving aspects of their work (e.g., loading and unloading, etc.). However, most commercial drivers are not short of breath while driving their vehicles. SOB while driving should trigger a more detailed evaluation of the driver that can include consulting with an appropriate medical specialist.

**Health History — Overview**

**Lung disease, emphysema, asthma, chronic bronchitis**

Ask about emergency room visits, hospitalizations, supplemental use of oxygen, use of inhalers and other medications, risk of exposure to allergens, etc.

**NOTE:** Since a driver must be alert at all times, any change in 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.

**Kidney disease, dialysis**

Ask about the degree and stability of renal impairment, ability to maintain treatment schedules, and the presence and status of any co-existing diseases.

**REMEMBER:** If the driver is on dialysis, he/she cannot drive.

**Digestive problems**

Ask about food intolerance, frequent or recurrent nausea vomiting and bowel disorders. Inquire about over the counter medication use.
Diabetes or elevated blood glucose controlled by diet, pills, or insulin

Ask about treatment, whether by diet, oral medications, incretin mimetics, or insulin.

**REMEMBER:** Drivers with insulin-treated diabetes mellitus who are otherwise qualified may apply for a Federal exemption. To do so, the ME must complete the examination and check the following boxes:

- Meets standards but periodic monitoring required due to (write in: insulin treatment).
- One year.
- Accompanied by (write in: Federal Diabetes) waiver/exemption (circle: exemption).

Nervous or psychiatric disorders (e.g., severe depression)

Refer to the guidance found in: Regulations - You must review and discuss with the driver any "Yes" answers.

Loss of or altered consciousness

Loss of consciousness while driving endangers the driver and the public. Your discussion with the driver should include cause, duration, treatment, and any evidence of recurrence or prior episodes of loss of or altered consciousness. You may, on a case-by-case basis, obtain additional tests and/or consultation to adequately assess driver medical fitness for duty.

Health History — Overview

Fainting, dizziness

Ask about episode characteristics, including frequency, factors leading to and surrounding an episode, and any associated neurologic symptoms (e.g., headache, nausea, loss of consciousness, paresthesia).

Sleep disorders, pauses in breathing while asleep, daytime sleepiness, loud snoring

Ask the driver about sleep disorders. Also ask about such symptoms as daytime sleepiness, loud snoring, or pauses in breathing while asleep. When indicated, you should screen for sleep disorders.

Stroke or paralysis

Note any residual paresthesia, sensory deficit, or weakness as a result of stroke and consider both time and risk for seizure.

Missing or impaired hand, arm, foot, leg, finger, toe

Determine whether the missing limb affects driver power grasping, or ability to perform normal tasks, such as braking, clutching, accelerating, etc.

**NOTE:** The Skilled Performance Evaluation (SPE) is designed for fixed deficits of the extremities and cannot be used for deficits caused by progressive disorders.

The SPE is applicable only for fixed deficits of the extremities. The underlying cause for the fixed deficit (e.g., trauma, cerebral palsy, or a birth defect) does not affect eligibility to apply
Spinal injury or disease

Refer to the guidance found in Regulations - You must review and discuss with the driver any "Yes" answers.

Chronic low back pain

Ask about the degree of pain. How does the pain affect the ability of the driver to perform driving and non-driving tasks? What does the driver do to alleviate pain? Does the treatment interfere with safe driving?

Regular, frequent alcohol use

Ask about driver consumption of alcohol, including quantity and frequency, or use such tools as the CAGE questionnaire to screen for possible alcohol-use problems. You should refer the driver who shows signs of a current alcoholic illness to a specialist.

Narcotic or habit-forming drug use

Explore the use of the medication, whether or not it is prescribed, and the medication’s effect on driver reaction time, ability to focus, and concentration. Ask whether the medication causes drowsiness, fatigue, or sleepiness.

NOTE: The medical examiner has the authority to disqualify a driver if he/she believes that the medication the driver is taking adversely impacts the ability to safely operate a CMV.

Health History — Medical Examiner Comments

At a minimum, your comments should include:

- Nature of a positive history and the effect on driving ability.
- Discussion about medication and/or treatment effects and side effects that might interfere with driving ability.

Include a copy of any supplementary medical reports obtained to complete the health history.
Part IV-i
Examination Standards
Qualification/Disqualification
The 13 Standards
Regulations Versus Medical Guidelines

As a ME it is important for you to distinguish between medical standards (49 CFR 391.41) and medical guidelines. Regulations or standards are laws and must be followed. Whereas guidelines, such as advisory criteria and medical conference reports are recommendations. While not law, the guidelines are intended as best practices for medical examiners.

Guidelines have been issued by the FMCSA to provide additional information and are based on medical literature. If you choose not to follow the guidelines, the reason(s) for the variation should be documented. You are responsible for determining if the CMV driver is medically qualified and is safe to drive under the FMCSA Regulations.

The physical qualification regulations for CMV drivers in interstate commerce are found at Section 391.41(b) of the FMCSA Regulations.

The advisory criteria under 391.41 are recommendations to help you as a medical examiner perform medical examinations and determine the medical fitness for duty of a driver. They are accessible on the FMCSA Web site at: Medical Advisory Criteria for Evaluation Under 49 CFR Part 391.41.

Ongoing Standards & Guidelines Review Process

FMCSA has an ongoing process for reviewing all Federal medical standards and guidelines used to determine driver medical fitness for duty.

To ensure that these regulations and guidelines are evidence-based, FMCSA uses a number of methods for gathering medical data, including, but not limited to:

- Agency expert analyses of Federal data and other relevant international, national, and State data.
- Interagency, national, and international regulatory analyses.
- Evidence reports.
- Medical Expert Panels (MEPs).
- Medical Review Board (MRB), a committee established in accordance with the Federal Advisory Committee Act.

First, FMCSA formulates questions relating to a specific medical condition and the associated impact on driving. FMCSA then gathers information through a systematic review of the available scientific literature. The findings are summarized in evidence reports that reflect current diagnostic and therapeutic medical advances.

For some topics, FMCSA convenes an MEP. The members of the MEP vary according to the specific topic and panel expertise. The task of the MEP is to provide an opinion for consideration by FMCSA.

Evidence reports, executive summaries, and MEP opinions are posted on the FMCSA Web site at Reports — How Medical Conditions Impact Driving.
The MRB meets three to four times each year on specific topics. The MRB independently reviews evidence reports and if an MEP was convened, also reviews the MEP opinion. The MRB deliberates and proposes recommendations for consideration by FMCSA.

MRB proceedings and public meetings schedule are posted on the MRB Web site.

FMCSA considers the evidence reports, the MEP opinion, and the recommendations from the MRB when reviewing medical standards and guidelines. FMCSA also considers other factors such as feasibility and impact. FMCSA posts information regarding proposed changes to the standards and guidelines on the FMCSA Medical Program Web page. Proposed changes to guidelines will accompany the standards as guidance and are subject to public notice-and-comment rulemaking.

This Medical Examiner Handbook will be updated as new standards and guidelines are approved.

49 CFR 391.41(b) Standards Review

49 CFR 391.41 Physical qualifications for drivers describes the medical qualification standards that an individual must meet in order to be qualified to operate an interstate CMV.

Your knowledge of the physical and mental demands of commercial driving and your medical judgment determine whether a particular condition interferes with driver ability of the person to operate a CMV safely.

As the ME, your fundamental obligation is to establish whether a driver has a disease or condition that increases the risk for sudden death or incapacitation, thus endangering public safety. The examination is based on information provided by the driver (history), objective data (physical examination), and additional testing requested by the ME. The assessment should reflect physical, psychological, and environmental factors.

Medical certification depends on a comprehensive medical assessment of overall health and informed medical judgment about the impact of single or multiple conditions on the whole person.
Part IV-ii
Examination Report Form
The Four Tests
**Review Medical Report Form Four Tests**

Completed by Medical Examiner Page 3

### Testing on the Examination Report Form

**NOTE:** Trained assistive personnel may perform vision screening tests, hearing tests, measure and recording of BP and pulse, height and weight, and the measurement and recording of urine dipstick results. However, the ME must sign the Examination Report form. By signing the Report form, the ME is taking responsibility for and attesting to the validity of all documented test results.
Vision

Vision — Medical Examiner Instructions

To meet the Federal vision standard, the driver must meet the qualification requirements for vision with both eyes.

**Regulations — A driver must have:**

- 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.
- Ability to recognize and distinguish among the colors of traffic signals and devices showing the standard red, amber, and green.

**Administer Vision Screening Tests**

- Have drivers who wear corrective lenses for driving wear corrective lenses for testing.
- Evaluate drivers who wear contact lenses for good tolerance and adaptation to contact lens usage.
- If needed, request a vision examination by a specialist using advanced vision testing equipment to evaluate driver vision adequately.

**Disqualifying Vision**

- Monocular vision.
- Use of contact lenses when one lens corrects distant visual acuity and the other lens corrects near visual acuity.
- Use of telescopic lenses.
- Failure to meet any part of the vision testing criteria with one eye or both eyes.

**NOTE:** Some drivers with monocular vision may be able to be certified if otherwise medically fit for duty and they are granted a Federal vision exemption certificate.

**Specialist Vision Certification**

The vision testing and certification may be completed by an ophthalmologist or optometrist.

**A specialist vision examination may be:**

- A requirement for obtaining and renewing a medical exemption.
• Necessary to obtain adequate evaluation of vision with specialized diagnostic equipment.

When the vision test is done by an ophthalmologist or optometrist, that provider must fill in the date, name, telephone number, license number, State of issue, and sign the examination form. Additionally, ensure that any attached specialist report includes all required examination and provider information.

**NOTE:** Vision is the only portion of the driver physical examination that can be performed and certified by a provider other than a ME.

**Vision - 49 CFR 391.41(b)(10)**

Summary of regulation

"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 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 70º 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 required tests measure visual acuity, peripheral horizontal visual fields, and color.

• Visual acuity is measured in each eye individually and both eyes together.
  o Distant visual acuity of at least 20/40 (Snellen) in each eye, with or without corrective lenses.
  o Distant binocular visual acuity of at least 20/40 (Snellen) in both eyes, with or without corrective lenses.

• Field of vision of at least 70º in the horizontal meridian in each eye.

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

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

• A ME, ophthalmologist, or optometrist may perform and certify vision test results. The ME determines driver certification status.

• **Monocular vision is disqualifying.**

**Driving and Public Safety**

Adequate central and peripheral vision are necessary for safe driving.

The driver must perceive the relative distance of objects, and react appropriately to vehicles in adjacent lanes or reflected in the mirrors, to pass, make lane changes, and avoid other vehicles on the road.

The visual demands of driving are magnified by vehicles that have larger blind spots, longer turning radiiuses, and increased stopping times.
Health History

Vision questions asked in the health history.

Eye disorders?
- Impaired vision (do not include corrective lenses)?

Important vision questions to ask.
- Symptoms related to or caused by eye diseases?
- Use of medications that have side effects that can affect safe driving?

Physical Examination

Examine the eyes for:
- Pupillary equality.
- Reaction to light and accommodation.
- Ocular motility.
- Ocular muscle imbalance.
- Extraocular movements.
- Nystagmus.
- Exophthalmos.

Required Tests

Required vision screening tests include central visual acuity, peripheral vision, and color vision.

Central visual acuity

The [Snellen chart](#) or the Titmus Vision Tester measure static central vision acuity. The requirement for central distant visual acuity is at least 20/40 in each eye and distant binocular visual acuity of at least 20/40. Test results must be recorded in Snellen-comparable values.

Eyeglasses or contact lenses may be worn to meet distant visual acuity requirements. When corrective lenses are worn to meet vision qualification requirements, corrective lenses must be worn while driving.

[Snellen Distant Acuity Test](#)

Peripheral vision

The requirement for peripheral vision is at least 70° in the horizontal meridian for each eye. In the clinical setting, some form of confrontational testing is often used to evaluate peripheral vision. When test results are inconclusive, the evaluation should be performed by a specialist with equipment capable of precise measurements.
Recommended Protocol for Screening the Visual Field.

**Color vision**

The color vision requirement is met by the ability to recognize and distinguish among red, amber, and green, the standard colors of traffic control signals and devices. True color perception is not required.

**Additional Evaluation/Ancillary Tests**

Eye trauma and ophthalmic disease can adversely impact visual performance and interfere with safe driving. Some ophthalmic diseases are seen more frequently with increased age or are secondary to other diseases such as diabetes mellitus or atherosclerosis.

The clinical setting may not provide the necessary equipment to evaluate ophthalmic diseases adequately. The medical examiner determines if the vision symptoms and signs or underlying disease require evaluation by an ophthalmologist or optometrist. The medical examiner then considers the documented results and the specialist opinion when determining if the vision meets qualification requirements.

**Select Ophthalmic Diseases**

- Cataracts.
- Glaucoma.
- Macular degeneration.
- Retinopathy.

**Certification and Documentation**

The qualified driver meets all of the following requirements:

- Distant acuity of at least 20/40 in each eye,
- Binocular acuity of at least 20/40,
- Horizontal field of vision of at least 70° measured in each eye, and
- The ability to recognize and distinguish among traffic control signals and devices showing standard red, amber, and green colors.

The ME may certify the driver for up to 2 years.

The driver who wears corrective lenses to meet the vision qualification requirements must wear corrective lenses while driving. The ME marks the "wearing corrective lenses" checkbox on both the Examination Report form and certificate. The examiner should advise the driver to carry a spare set of eyeglasses.

**Monocular vision**

Monocular vision occurs when the vision requirements are met in only one eye, with or without the aid of corrective lenses, regardless of cause or degree of vision loss in the other eye. In low
illumination or glare, monocular vision causes deficiencies in contrast recognition and depth perception compared to binocular vision.

The ME should complete the certification examination of the driver with monocular vision and determine if the driver is otherwise qualified. The driver with monocular vision who is otherwise qualified may want to apply for a Federal vision exemption.

**The otherwise medically qualified driver with a Federal vision exemption**

At the annual recertification examination, the driver presents a valid vision exemption and a copy of the specialist eye examination report before receiving the ME's certificate.

The ME may certify the driver for up to 1 year. Mark the "accompanied by" exemption checkbox and write "vision" to identify the type of Federal exemption.

**The otherwise medically qualified driver applying for a Federal vision exemption**

The driver applying for a vision exemption should include a copy of the Examination Report form and certificate with the application to the Federal Vision Exemption Program.

Certify the driver for up to 1 year. Mark the "accompanied by" exemption checkbox and write "vision" to identify the type of Federal exemption.

**The ME does not issue a Federal vision exemption.** Both the ME's certificate and Federal vision exemption are required before the driver with monocular vision can legally drive a commercial vehicle in interstate commerce.

**Federal Vision Exemption Program**

- **Qualified by Operation of 49 CFR 391.64: "Grandfathered."**
- **Contact the Federal Vision Exemption Program** or call 703-448-3094.
Hearing

Hearing — Medical Examiner Instructions

To meet the Federal hearing standard, the driver must successfully complete one hearing test with one ear.

Regulations — A driver must:

- First perceive a forced, whispered voice in one ear at not less than five feet,

OR

- Not have an average hearing loss in one ear greater than 40 decibels (dB) at 500 hertz (Hz), 1,000 Hz, and 2,000 Hz.

Administer Hearing Test or Tests

- Administer either hearing test first:
  - Forced whisper test.
  - Audiometric test.

- If the driver:
  - Passes the initial hearing test:
    - Do not administer the other test.
  - Fails the initial hearing test:
    - Do administer the other hearing test.

A driver may use a hearing aid to meet the standard.

Record use of a hearing aid.

- If the driver uses a hearing aid while testing, mark the “Check if hearing aid used for tests” box.
- If the driver must use a hearing aid to meet standard, mark the “Check if hearing aid required to meet standard” box.

Record Hearing Tests Results

Forced whisper test — Record the distance, in feet, at which a whispered voice is first heard.
Audiometric test — Record hearing loss in dB for 500 Hz, 1,000 Hz, and 2,000 Hz according to the American National Standards Institute (ANSI).

**NOTE:** Convert International Organization for Standardization (ISO) audiometric test results to ANSI by:

- Subtracting 14 dB from ISO for 500 Hz.
- Subtracting 10 dB from ISO for 1,000 Hz.
- Subtracting 8.5 dB from ISO for 2,000 Hz.

Hearing — Hearing Test Example

In the example above, the examiner has documented the test results for both hearing tests. The forced whisper test was administered first, and hearing measured by the test failed to meet the minimum five feet requirement in both ears. Therefore, the medical examiner also administered an audiometric test, resulting in:

- Right ear $30 + 33 + 35 = 98/3 = 32.6 = \text{PASS}$
- Left ear $40 + 43 + 50 = 133/3 = 44.3 = \text{FAIL}$

The hearing standard is met because the average hearing loss in the right ear is less than 40 dB when measured with an audiometer.

This driver passed one hearing test in one ear.

Hearing – 49 CFR 391.41(b)(11)

Summary of regulation

"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 ASA Standard) Z24.5–1951."

- **The required tests screen for hearing loss in the range of normal conversational tones.**
- **Two tests are used to screen hearing:** a forced whisper test AND/OR an audiometric test.
  - Either test may be administered first.
  - Test both ears.
  - Administration of the second test may be omitted when the test results of the initial test meet the hearing requirement for that test.
- **Hearing requirements are:**
First perceive a forced whispered voice, in one ear, at not less than five feet.

OR

Have an average hearing loss, in one ear, less than or equal to 40 decibels (dB).

- When a hearing aid is used to meet the hearing qualification requirement, the hearing aid must be used while driving.
- Disqualify when both the forced whisper test AND the audiometric test are failed.

Driving and Public Safety

Hearing plays a role in safe driving. Hearing warning sounds, such as horns, train signals, and sirens may allow the driver to react to a potential hazard before it is visible. An auditory alarm or changes in the usual sound of the engine or vehicle carriage may be the first indication that the vehicle may require maintenance.

Hearing loss can interfere with communication between the driver and other people such as dispatchers, loading dock personnel, passengers, and law enforcement officers.

Balance is required for safe driving and task performance (e.g., vehicle inspections, securing loads) and when getting into, and out of, trucks and buses.

Health History

Hearing questions that are asked in the health history.

- Ear disorders?
- Loss of hearing?
- Loss of balance?

Important questions to ask.

- Symptoms related to or caused by ear disease?
- Use of medications?

Physical Examination

Examine the ears for:

- Scarring of tympanic membranes or signs of middle ear disease.
- Occlusion of the external ear canal.
- Perforated eardrums.

Note and discuss abnormal findings, including the impact on driving and certification. Hearing loss can be a symptom of a disease rather than a discrete disorder. In some cases, hearing loss may be treated and reversed.
Required Tests

The forced whisper test and audiometry are used to determine certification. These tests measure hearing loss using the frequencies found in normal conversation. Either test can be administered first. Administration of both tests is required only when the initial test results for both ears fail to meet the hearing requirement.

A hearing aid may be used during forced whisper testing. When a driver who wears a hearing aid is unable to pass a forced whisper test, referral to an audiologist, otolaryngologist, or hearing aid center may be required.

The hearing qualification requirement for:

- **Forced whisper test**
  - First perceives a forced whispered voice.
  - In one ear.
  - At not less than five feet.

- **Audiometric test**
  - Has an average hearing loss (average of test results for 500 hertz (Hz), 1,000 Hz, and 2,000 Hz).
  - In one ear.
  - Less than or equal to 40 dB.

Additional Evaluation/Ancillary Tests

Ear trauma and otic disease can adversely impact hearing and/or balance and interfere with safe driving and performance of related tasks. When findings are inconclusive regarding medical fitness for duty, ancillary tests and/or additional evaluation by a specialist, usually an audiologist or otolaryngologist, may be required to obtain sufficient medical information to determine certification status.

Select Otic Diseases and Conditions

- **Meniere’s disease.**
- **Vertigo.**
- **Labyrinthine fistula.**
- **Nonfunctioning labyrinth.**

FMCSA medical reports are available on the FMCSA Web site.
Certification and Documentation

The qualified driver, with or without the use of a hearing aid:

- First perceives a forced whispered voice, in one ear, at not less than five feet.

OR

- Has an average hearing loss, in one ear, less than or equal to 40 dB at 500 Hz, 1,000 Hz, and 2,000 Hz.

The ME may certify the driver for up to 2 years.

The driver who uses a hearing aid to qualify must wear a hearing aid while driving. The ME marks the "wearing hearing aid" checkbox on both the Examination Report form and the certificate. The examiner should advise the driver to carry a spare power source for the hearing aid.
Blood Pressure & Pulse Rate

Blood Pressure/Pulse Rate — Medical Examiner Instructions

Regulations — You must measure:

Blood Pressure (BP)

- Only BP readings taken during the driver physical or follow-up examinations may be used for certification decisions.
- BP greater than 139/89 must be confirmed with a second measurement taken later during the examination.
- Record additional BP measurement in your comments on the Examination Report form.

Pulse

- Document pulse rhythm by marking the “Regular” or “Irregular” box.
- Record pulse rate.
- Record additional pulse characteristics in your comments on the Examination Report form.

NOTE: When BP, pulse rate, or both are significant factors in your decision not to certify a driver, it is prudent for you to measure the readings yourself.

Blood Pressure/Pulse Rate — Stages of Hypertension Guidelines Table

The instructions for ME’s found in 49 CFR 391.43 Blood pressure (BP) stipulate that more frequent monitoring is appropriate when a driver has hypertension at examination time or is being treated for hypertension. The Blood Pressure/Pulse Rate section of the Examination Report form has a table that summarizes the guidelines for BP and is equivalent to three stages of hypertension.

A one-time, three-month medical certificate is granted in two cases: where the driver has a BP that is equivalent to Stage 2 hypertension, or a driver that was certified with Stage 1 hypertension has not achieved a BP less than or equal to 140/90 at recertification. This three-month certificate is a one-time issuance for the recertification period and is not intended to mean once in the driver’s lifetime.

NOTE: These are recommendations. The ME may use his/her clinical expertise and results of the individual driver examination to determine the length of time between recertification examinations.

The following table corresponds to the first two columns of the recommendation table in the Examination Report form. Column one has the blood pressure readings, and column two has the category classification.

When a BP reading is a value where the individual systolic and diastolic readings are in different stages, you should classify the reading by the higher stage. For example, 168/94 and 148/104 are both examples of Stage 2 hypertension.
A driver with Stage 3 hypertension (greater than or equal to 180/110) is at an unacceptable risk for an acute hypertensive event and should be disqualified. You may reconsider the driver for certification following effective treatment for hypertension evidenced by BP stabilized at less than or equal to 140/90.

The 6-month expiration and recertification dates apply to the driver with a known history of Stage 3 hypertension, who has an acceptable BP at examination time, and who tolerates treatment with no side effects affecting safe operation of a CMV.

High Blood Pressure - 49 CFR 391.41(b)(6)

Summary of regulation

"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 his/her ability to operate a commercial motor vehicle safely."

49 CFR 391.43(f) 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."

Relevance to Driving

Americans With Hypertension

According to the Third National Health and Nutrition Examination Survey, 29% of all U.S. adults 18 years and older have BP greater than or equal to 140/90 or are taking medication for hypertension. The prevalence of hypertension is nearly equal for men and women. Among adults with hypertension, 78% are aware of their condition, 68% are treated with antihypertensive medication, and 64% achieve BP less than 140/90 with treatment.
Risks Associated With Hypertension

Hypertension alone is unlikely to cause sudden collapse; however, hypertension is a potent risk factor for the development of more serious cardiovascular disease (CVD), peripheral vascular disease, and chronic renal insufficiency. BP greater than or equal to 140/90 is deemed high for most individuals without other significant cardiovascular risk factors.

In individuals ranging from 40 to 89 years of age, for every 20 mm Hg systolic or 10 mm Hg diastolic increase in BP, there is a doubling of mortality from both ischemic heart disease and stroke. The relationship between BP and risk of a CVD event is continuous, consistent, and independent of other risk factors. Both elevated systolic and diastolic BP are risk factors for coronary heart disease (CHD).

Commercial Drivers at Greater Risk for Developing Hypertension

Once in the profession, CMV drivers have a greater propensity to develop hypertension than their peers in other professions. The Cardiovascular Advisory Panel Guidelines for the Medical Examination of Commercial Motor Vehicle Drivers includes data from Ragland, et al., demonstrating that the percentage of drivers with hypertension increased from 29% in drivers with fewer than 10 years of driving experience, to 32% in drivers with 10-20 years of experience, and to 39% in drivers with more than 20 years of driving experience. As the years of experience rise, part of the increase in hypertension may relate to accompanying aging, increase in body mass, or decline in physical activity.

Effective Treatment Reduces Risk

High BP can be a modifiable CVD risk factor. Lifestyle modification and pharmacotherapy are the mainstays of antihypertensive treatment regimens. Effective hypertension management reduces cardiovascular morbidity and mortality. The Chicago Heart Association Detection Project in Industry found that antihypertensive therapy reduces the incidence of stroke, myocardial infarction, and heart failure.

Key Points for High BP/Hypertension Medical Examination

A current diagnosis of hypertension exists when one or more antihypertensive agents are used to control high BP. When antihypertensive medication is used to treat an underlying condition other than high BP, certification is based on the underlying condition and tolerance to the medication.

The Examination Report form includes questions about the health history of the driver and requires measuring BP. Additional questions should be asked to supplement the information requested on the Examination Report form. You may ask about symptoms of hypertension and use of antihypertensive medications. It is generally not the role of the medical examiner to determine treatment for the disease.

You should evaluate for other clinical cardiovascular diseases, including CHD, heart failure, and left ventricular hypertrophy, as well as stroke or transient ischemic attack, peripheral artery disease, retinopathy, nephropathy, and other target organ damage.
Regulations

Does the driver:

- Have high BP?
- Take hypertensive medication?

Recommendations — Questions you may consider

Does the driver have:

- Contact information for the treating provider and a medical release form?
- Symptoms related to or caused by high BP?
- Limitations resulting from the disease or treatment?
- Lifestyle risk factors, particularly modifiable behaviors and conditions (e.g., smoking, obesity, and/or lack of exercise)?
- Uncontrolled hypertension while using three or more antihypertensive medications at close to maximum dosages? If the response is “yes,” an evaluation for secondary hypertension may be appropriate.

Regulations

For every certification and recertification examination you must:

- Measure BP.
- Confirm BP greater than 139/89 with a second measurement taken later during the examination.
- Check pulse rate, strength, and rhythm.

NOTE: Under the supervision of the medical examiner, trained assistive personnel may measure and record the BP; however, it is prudent for the medical examiner to confirm disqualifying BP personally.

Hypertension — Guidance/Advisory Criteria

- Essential Hypertension
- Secondary Hypertension

The complete text of the medical conference reports can be accessed from FMCSA Medical Reports.
Laboratory and Other Test Findings

Laboratory and Other Test Findings — Medical Examiner

Regulations — You must perform a urinalysis (dip stick)

Test for:

- Specific gravity
- Proteinuria
- Hematuria
- Glycosuria

Additional Tests and/or Evaluation from a Specialist

Abnormal dipstick readings may indicate a need for further testing. As a ME, you should evaluate test results and other physical findings to determine the next step. For example, glycosuria may prompt you to obtain a blood glucose test. If the urinalysis, combined with other medical findings, indicates the potential for renal dysfunction, you should obtain additional tests and/or consultation to adequately assess driver medical fitness for duty.

Document all additional test results and include the results in your comments, including whether or not the health of the driver affects the ability to safely operate a CMV. Attach any additional medical reports obtained to the Examination Report form.

NOTE: Testing for controlled substances is not part of the physical qualifications for the CMV driver examination process. Testing for controlled substances falls under a different regulation. However, if you suspect a need for drug/alcohol testing, contact the FMCSA, or the motor carrier directly, for information on controlled substances and alcohol testing under Part 382 of the FMCSA Regulations. Specific questions may be directed to the FMCSA Field Office in your State or call FMCSA at 1-800-832-5660.
Part IV-iii
Examination Report Form
Physical Exam Exemptions & Exceptions
Physical Examination — Record Driver Height and Weight

Regulations — You must measure and record driver height (inches) and weight (pounds)

The physical qualification standards do not include any maximum or minimum height and weight requirements. You should consider height and weight factors as part of the overall driver medical fitness for duty.

Physical Examination — ME Responsibilities

The general purpose of the physical examination is to detect the presence of physical, mental, or organic conditions of such character and extent as to affect the driver’s ability to operate a CMV safely. This examination is for public safety determination and is considered by the FMCSA to be a "medical fitness for duty" examination.

Regulations — You must perform the described physical examination
The physical examination should be conducted carefully and must, at a minimum, be as thorough as the examination of body systems outlined in the Examination Report form. For each body system, mark "Yes" if abnormalities are detected, or "No" if the body system is normal.

You must document abnormal findings on the Examination Report form, even if not disqualifying.

Start your comments using the number to indicate the body system (e.g., 2 for eyes or 8 for vascular system). Your comments should:

- Indicate whether or not the abnormality affects driving ability.
- Indicate if additional evaluation is needed to determine medical fitness for duty.
- Include a copy of any supplementary medical evaluation obtained to adequately assess driver health.
- Document your discussion with the driver, which may include advice to seek additional evaluation of a condition that is not disqualifying but could, if neglected, worsen and affect driving ability.
- Indicate whether or not the body has compensated for an organic disease adequately to meet physical qualification requirements.

Body System — CHECK FOR:

1. General Appearance

Observe and note on the Examination Report form any abnormalities with posture, limps, or tremors. Observe and note driver affect and overall appearance. Note driver demeanor and whether responses to questions indicate potential adverse impact on safe driving.

Is the driver markedly overweight? If yes, what are the clinical and safety implications when integrated with all other findings?

Are there signs of current alcohol or drug abuse? If yes, refer the driver to a specialist for evaluation. After successful counseling and/or treatment, a driver may be considered for certification, as long as no residual limitations exist that could interfere with the ability to safely operate a CMV.

2. Eyes

At a minimum, you must check for pupillary equality, reaction to light and accommodation, ocular motility, ocular muscle imbalance, extraocular movement, nystagmus, and exophthalmos.

Does your examination find any abnormality that interferes with driving ability? Is an eye abnormality an indicator that additional evaluation, perhaps by a specialist, is needed to assess the nature and severity of the underlying condition?

**NOTE:** Special diagnostic equipment may be needed to adequately assess a driver with a known diagnosis or who is at risk for retinopathy, cataracts, aphakia, glaucoma or macular degeneration. Referral to a vision specialist may be required.
3. **Ears**

You should check for evidence of any aural disease or condition. At a minimum, you must check for scarring of the tympanic membrane, occlusion of the external canal, and perforated eardrums.

Does your examination find abnormalities that might account for hearing loss or a disturbance in balance? Should the driver consult with a primary care provider or hearing specialist for possible treatment that might improve hearing test results?

The presence of some disorders, such as Meniere's disease, may interfere significantly with driving ability and performance of CMV driver tasks. In this case, guidelines recommend to not certify the driver.

4. **Mouth and Throat**

You should be alert to findings that suggest oral disease or impaired oropharynx airflow. Does a condition exist that should be evaluated for treatment or further diagnostic testing prior to certification as a CMV driver?

5. **Heart**

You must examine the heart for murmurs, extra sounds, enlargement, and a pacemaker or implantable cardioverter defibrillator. Check the lower extremities for pitting edema and other signs of cardiac disease.

Does your examination find any abnormalities that indicate the driver may have a cardiovascular disorder accompanied by and/or likely to cause symptoms of syncope, dyspnea, collapse, or congestive cardiac failure?

Does a condition or treatment require long-term follow-up and monitoring to ensure that the condition is stabilized or that treatment is effective and well tolerated?

**NOTE:** There are no work restrictions permitted. The commercial driver must be able to perform all job-related tasks, including lifting, to be certified.

6. **Lungs and Chest**

You must examine the lungs and chest for abnormal chest wall expansion, respiratory rate, and breath sounds including wheezes or alveolar congestion. You must check for impaired respiratory function and cyanosis. Be sure to examine the extremities for clubbing of the fingers and other signs of pulmonary disease.

Does your examination detect a respiratory dysfunction that in any way could interfere with the ability of the driver to safely operate a CMV? The driver may need to have pulmonary function tests and/or have a specialist evaluation to adequately assess respiratory function.
Body System (Column 2) — CHECK FOR:

7. Abdomen and Viscera
You must check for enlarged liver and spleen, masses, bruits, hernia, and significant abdominal wall muscle weakness. Check for tenderness.

Does an abnormal finding suggest a condition that might interfere with safe CMV operation?

8. Vascular System
You must check for abnormal pulse and amplitude, carotid or arterial bruits, and varicose veins. Check for pedal pulses.

The diagnosis of arterial disease should prompt you to evaluate for the presence of other cardiovascular diseases. Adequate evaluation may require additional testing and/or specialist examination.

9. Genitourinary System
You must check for hernias. You should evaluate any hernia that causes the driver discomfort to determine the extent to which the condition might interfere with the ability of the driver to operate a CMV safely. Obtain further testing and evaluation as required.

An abnormal urinalysis indicates further testing to rule out underlying medical problems.

**NOTE:** You cannot certify a driver who has not provided a urine specimen.

10. Extremities-Limb Impaired. Driver may be subject to Skill Performance Evaluation (SPE) certificate if otherwise qualified.

Check for fixed deficits of the extremities caused by loss, impairment, or deformity of an arm, hand, finger, leg, foot, or toe. Does the driver have a perceptible limp?

Does the driver have sufficient grasp and prehension in the upper limbs to maintain steering wheel grip? Does the driver have sufficient mobility and strength in lower limbs to operate CMV pedals properly?

Does the driver have signs of progressive musculoskeletal conditions, such as atrophy, weakness, or hypotonia?

**NOTE:** If you find a driver is medically qualified EXCEPT for a fixed deficit of an extremity caused by the loss or functional impairment of a limb, you may qualify the driver, subject to obtaining an SPE certificate. The SPE program is intended only for individuals with fixed deficits of the extremities (not for individuals with progressive diseases).

11. Spine, Other Musculoskeletal
You must check the musculoskeletal system for previous surgery, deformities, limitations of motion, and tenderness. Does the driver have a diagnosis or signs of a condition known to be associated with acute episodes of transient muscle weakness, poor muscular coordination, abnormal sensations, decreased muscular tone, and/or pain? What is the:

- Nature and severity of the condition?
• Degree of limitation present?
• Likelihood of progressive limitation?
• Likelihood of gradual or sudden incapacitation?

12. **Neurological**

You must examine the driver for impaired equilibrium, coordination, and speech pattern. Does the driver have ataxia? Are deep tendon reflexes symmetric? Are patellar reflexes normal? Is the Babinski's reflex normal? Are there any sensory or positional abnormalities?

Does an abnormal finding suggest a condition that might interfere with safe CMV operation?
Cardiovascular – 49 CFR 391.41(b)(4)

Summary of regulation

"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 (CVD) of a variety known to be accompanied by syncope, dyspnea, collapse, or congestive cardiac failure."

Relevance to Driving

A fundamental question when deciding if a commercial driver should be medically certified is whether the driver has a CVD that increases the risk of sudden death or incapacitation and creates a danger to the safety and health of the driver, as well as the public sharing the road.

A number of concerns beyond the typical cardiac risk factors predispose commercial drivers to an increased risk of CVD:

- According to the Commercial Driver’s License Information System, in 2009 the average age of a driver is 39 years.

- Obesity and a sedentary lifestyle increase the risk of CVD. Both are more common in the commercial driving population than in the general population.

- Driving stressors, such as traffic congestion, erratic shift work, a sense of responsibility for others, and emotional distress due to belligerent passengers, can lead to increased neurosympathetic and adrenocortical catecholamine and cortisol release. This increases the likelihood of changes in arterial tone, myocardial excitability and contractility, and thrombogenic propensity, particularly given the aging workforce in the United States.

- Drivers are exposed to other environmental stressors that may be detrimental to the cardiovascular system, such as excessive noise, temperature extremes, air pollution, and whole body vibration.

The effect of CVD on the commercial driver is significant now and will increase in the future. The major clinical manifestations of CVD are acute myocardial infarction, angina pectoris, sudden death, and congestive heart failure. Arrhythmia is the most likely cause of sudden driver incapacitation. However, coronary heart disease (CHD) is the most common etiology. Estimated frequencies of initial presentation of CHD are approximately 50% acute myocardial infarction, 30% angina, and 20% sudden death. Sudden cardiac dysfunction is particularly relevant to safety-sensitive positions, such as pilots, merchant marines, and commercial drivers. In these jobs, policies are expected to protect against gradual or sudden incapacitation on the job and harm to the public.

The effect of heart disease on driving must be viewed in relation to the general health of the driver. Other medical conditions may exacerbate a cardiovascular condition. Thus, medical certification to drive depends on a comprehensive medical assessment of overall health and informed medical judgment about the impact of single or multiple conditions on the whole person.

Disqualification requires that the CMV driver exhibit a higher than acceptable likelihood of acute incapacitation from a cardiac event, resulting in an increased risk to the safety and health of the driver and the public.
Key Points for Cardiovascular Medical Examination

Regulations

Does the driver have:

- A current clinical diagnosis of myocardial infarction, angina pectoris, coronary insufficiency, or thrombosis?
- Syncope, dyspnea, or collapse?
- Heart failure?
- A history of heart disease or acute myocardial infarction?
- A history of other heart conditions?
- A history of heart surgery (valve replacement/bypass, angioplasty, implantable cardiac defibrillator, pacemaker)?
- Use cardiovascular medications that effectively control a condition without side effects that interfere with safe driving?

Recommendations — Questions you may ask explore:

Does the driver experience:

- Chest pain?
- Chest pressure or ache with exertion?
- Pain, pressure, or dyspnea at rest or with exertion?
- Recurrent and/or severe palpitations?
- Pre-syncope (dizziness, light-headedness) or true syncope (loss of consciousness)?
- Medical therapy that requires monitoring?

Regulations:

On examination, does the driver have:

- Murmurs, extra heart sounds, or arrhythmias?
- An enlarged heart?
- Abnormal pulse or amplitude, carotid or arterial bruits, or varicose veins?

Cardiovascular — Guidance/Advisory Criteria

- Aneurysms, Peripheral Vascular Disease, and Venous Disease and Treatments
- Cardiac Arrhythmias and Treatments
- Cardiovascular Tests
• Cardiovascular Recommendation Tables Only (PDF)
• Coronary Heart Diseases and Treatments
• Congenital Heart Disease
• Heart Transplantation
• High Blood Pressure/Hypertension (b)(6)
• Myocardial Disease
• Syncope
• Valvular Heart Diseases and Treatments

The complete text of the medical conference reports can be accessed from FMCSA Medical Reports.
Respiratory – 49 CFR 391.41(b)(5)

Summary of regulation

"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 his/her ability to control and drive a commercial motor vehicle safely."

Relevance to Driving

The commercial driver spends more time driving than the average individual. Driving is a repetitive and monotonous activity that demands the driver be alert at all times. Symptoms of respiratory dysfunction or disease can be debilitating and can interfere with the ability to remain attentive to driving conditions and to perform heavy exertion. Even the slightest impairment in respiratory function under emergency conditions (when greater oxygen supply may be necessary for performance) can be detrimental to safe driving.

There are many primary and secondary respiratory conditions that interfere with oxygen exchange and may result in gradual or sudden incapacitation, for example:

- Asthma.
- Carcinoma.
- Chronic bronchitis.
- Emphysema.
- Obstructive sleep apnea.
- Tuberculosis.

In addition, medications used to treat respiratory conditions, both prescription and those available without prescription, may cause cognitive difficulties, compound the risk for excessive daytime sleepiness (EDS), or cause or contribute to other forms of incapacitation.

Key Points for Respiratory Medical Examination

Regulations

Does the driver experience or have:

- Shortness of breath?
- Lung disease?
- Emphysema?
- Asthma?
- Chronic bronchitis?
- Sleep disorder?
• Pauses in breathing while asleep?
• Daytime sleepiness?
• Loud snoring?

Recommendations — Questions you may consider

Does the driver:
• Smoke? If yes, how much and for how long?
• Feel short of breath while driving?
• Cough frequently? If yes, is the cough productive of sputum?
• Experience tightness of the chest or shortness of breath while resting or exercising?
• Wheeze during the day or night or with exertion?
• Use respiratory agents?
• Use oxygen therapy?
• **Self-report sleepiness that may indicate increased risk for EDS?**

Regulations

Does the driver have:
• Impaired respiratory function?
• Cyanosis?
• Abnormal:
  o Chest wall expansion?
  o Respiratory rate?
  o Abnormal breath sounds, including wheezes or alveolar congestion?
  o Findings that may require further testing such as pulmonary tests or referral?

Recommendations — You may request

A detailed pulmonary function evaluation or consultation with a pulmonologist when the physical examination reveals:
• Clubbing of the fingers.
• Cyanosis.
• Prolonged expiration.
• Tachypnea at rest.
- Pulmonary wheezes and rhonchi, alveolar congestion.
- Absent or decreased breath sounds.
- Pleural friction rub.
- Unequal inflation-deflation contours of the right and left thorax.
- Significant kyphosis or scoliosis of the thoracic spine.
- Use of accessory muscles of ventilation at rest.

**REMINDER:** When requesting additional evaluation from a specialist, the specialist must understand the role and function of a driver; therefore, it is helpful if you include a copy of the description of the driver role found in the Examination Report form and the applicable medical standard and guidelines.

**Respiratory – Guidance/Advisory Criteria**

- Allergies and Asthma-related Diseases
- Chronic Obstructive Pulmonary Disease
- Chronic Sleep Disorders
- Infectious Respiratory Diseases
- Non-infectious Respiratory Diseases
- Pulmonary Function Tests
- Secondary Respiratory Conditions and Underlying Disorders

The complete text of the medical conference reports can be accessed from [FMCSA Medical Reports](https://www.fmcsa.dot.gov).
Neurological – 49 CFR 391.41(b)(8)

Summary of regulation

"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 commercial motor vehicle."

Relevance to Driving

CMV drivers must be able to sustain vigilance and attention for extended periods in all types of traffic, road, and weather conditions. Neurological demands of driving include:

- Cognitive demands:
  - Sustained vigilance and attention.
  - Quick reactions.
  - Communication skills.
  - Appropriate behavior.

- Physical demands:
  - Coordination.

Risk from Headaches

Most individuals have experienced symptoms of headaches, vertigo, and dizziness. While generally inconsequential, these symptoms may constitute a problem for the driver of a CMV.

Headache and chronic "nagging" pain may be present to such a degree that certification for driving a CMV is inadvisable and the medication used to treat headaches may further interfere with safe driving. Complaints should be thoroughly examined when determining the overall fitness of the driver. Disorders with incapacitating symptoms, even if periodic or in the early stages of disease, warrant the decision to not certify the driver.

Risk from Vertigo and Dizziness

Multiple conditions may affect equilibrium or balance resulting in acute incapacitation or varying degrees of chronic spatial disorientation. Types of vertigo and dizziness with incapacitating symptoms, even if periodic or in the early stages of disease warrant the decision to not certify the driver when symptoms interfere with one or more of the following:

- Cognitive abilities.
- Judgment.
- Attention.
- Concentration.
Risk from Seizures and Epilepsy

Safety is the major reason the driver with epilepsy or seizures is restricted from commercial driving. Loss of consciousness endangers the driver and the public.

The physical and mental demands of commercial driving expose seizure prone individuals to conditions that may increase the risk for seizures and may interfere with management of seizures, including:

- Inconsistent access to medical evaluation and care of acute problems.
- Delays in replacement of anticonvulsant medication if lost or forgotten.

The length of time an individual is seizure free and off anticonvulsant medication is considered the best predictor of future risk for seizures. Other considerations include:

- The underlying cause of the seizure.
- The area of the brain affected by disease or injury.

Many driver tasks, from shifting to securing loads, require coordinated voluntary movements. You should consider the following safety implications when evaluating a driver:

- What is the nature and severity of the dysfunction?
- What is the degree of limitation?
- Is the limitation likely to get worse?
- How predictable is the degeneration?
- What is the probability of the dysfunction happening without warning versus progressing over the span of months or years?

Key Points for Neurological Medical Examination

Regulations

Does the driver have:

- Seizures, epilepsy, and/or use anticonvulsant medication?
- History of head/brain injuries, disorders, or illnesses?
- Episodes of loss of or altered consciousness?
- Episodes of fainting or dizziness?
- History of stroke with residual impairment or paralysis?
• Spinal injury or disease with residual effects?

**Recommendations — Questions you may consider**

**Does the driver have:**

• Current limitations resulting from any neuromuscular, nervous, organic, or functional disorder?
• Symptoms related to or caused by neurological diseases?
• Use medication to treat a neurological disorder, including:
  - Anticonvulsants ([anticonvulsant therapy recommendations](#)).
  - Anticoagulants ([anticoagulant therapy recommendations](#)).
  - Antiplatelet drugs.
  - Central nervous system stimulants and depressants.

**Does the history of seizures include:**

• Childhood febrile seizures?
• Provoked seizures (e.g., induced by anesthesia, hypoglycemia, medications, or fever)?
• Unprovoked seizures:
  - Single episode?
  - Two or more unprovoked seizures (epilepsy)?

**Does the driver have signs of undiagnosed neurological disease? Consider:**

• Is the drivers reported information incorrect or incomplete?
• Are instructions followed and the responses appropriate and relevant?
• Is the appearance:
  - Reasonable for the situation?
  - Reflective of good personal hygiene?
• Do questions and responses demonstrate alertness, comprehension, appropriateness, and relevance?
• Is behavior appropriate to the neurological functioning required to drive safely?

**Regulations**

**On examination, does the driver have:**
- Compromised equilibrium, coordination, and/or impaired speech pattern?
- Asymmetrical deep tendon reflexes?
- Abnormal patellar and Babinski reflexes?
- Sensory abnormalities?
- Positional abnormalities?
- Ataxia?

**Remember:** Medical fitness-for-duty includes the ability to perform strenuous labor. Medical fitness-for-duty also requires the driver to be free of neurological limitations that interfere with:

- Cognitive abilities.
- Judgment.
- Attention.
- Concentration.
- Vision.
- Physical strength.
- Agility.
- Reaction time.

**Neurological – Guidance/Advisory Criteria**

- [Episodic Neurological Conditions](#)
- [Infections of the Central Nervous System](#)
- [Neuromuscular Diseases](#)
- [Progressive Neurological Conditions](#)
- [Static Neurological Conditions](#)
- [Summary of Neurological Waiting Periods](#)
Musculoskeletal – 49 CFR 391.41(b)(1)(2)(7)


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

b(1) “Has no loss of a foot, a leg, a hand, or an arm, or has been granted a skill performance evaluation certificate pursuant to §391.49."

b(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 skill performance evaluation certificate pursuant to §391.49."

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

Relevance to Driving

Disorders of the musculoskeletal system affect driving ability and functionality necessary to perform heavy labor tasks associated with the job of commercial driving. Medical certification means the driver is physically able to safely drive and perform non-driving tasks as described in the driver role section of the FMCSA Examination Report form.

Drivers have a multitude of job demands. The least physically demanding part may be the actual driving. For example, the duties of a commercial driver may include loading and unloading, making multiple stops, driving cross-country and in heavy city traffic, working with load securement devices, and changing tires.

Other common driving tasks include:

- Manipulating the wheel.
- Shifting gears.
- Maintaining pressure on the pedals.
- Braking.
- Monitoring traffic.

Other job tasks may include:

- Performing pre- and post-trip safety checks.
• Ensuring the vehicle is loaded properly.
• Securing the load.
• Evaluating and managing vehicle breakdowns.
• Responding to emergency situations.

**Key Points for Musculoskeletal Medical Examination**

The ME should adapt the observation, inspection, palpation, and screening tests of the general musculoskeletal examination to ensure that the physical demands of commercial driving are assessed (e.g., rotation of the outstretched arms against resistance as if turning a large steering wheel, movement of the legs in braking and clutching, etc.).

The FMCSA Examination Report form includes health history questions. Additional questions should be asked to supplement information requested on the form. Any musculoskeletal or neuromuscular 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 gradual or sudden incapacitation.

**Regulations**

**Does the driver have:**

• A muscular disease?
• A missing hand, arm, foot, leg, finger, or toe?
• A nonfunctioning or dysfunctional hand, arm, foot, leg, finger, or toe?
• An injury or disease of the spine?
• Chronic low back pain?

**Recommendations — Questions you may ask consider**

**Does the driver:**

• Have physical limitations caused by weakness, pain, or decreased mobility and range of motion?
• Use musculoskeletal agents (effects and/or side effects)?
• Have mild, moderate, or severe chronic musculoskeletal pain (frequency and intensity)?

**Regulations**

**Does the driver have:**

• A missing or impaired leg, foot, toe, arm, hand, or finger?
• Sufficient power grasp and prehension of hands and fingers to maintain steering wheel grip?
Sufficient strength and mobility in lower limbs to operate CMV pedals properly?
A perceptible limp?
Signs of previous spine or other musculoskeletal surgery?
Deformities of the spine and/or torso?
Sufficient mobility and strength of spine and/or torso to drive safely and perform other job tasks?
Limitations of motion of the spine and/or torso?
Spine, torso, and/or other musculoskeletal tenderness?

**NOTE:** As a ME you determine if the severity of a reversible or progressive musculoskeletal disease interferes with driving ability. If findings so dictate, radiology and other examinations should be used to diagnose defects and musculoskeletal abnormalities.

Examination by an orthopedist or physiatrist who understands the functions and demands of commercial driving may be advisable to assess the status of the disease and is required in the case of an application for SPE. Remember, as a medical examiner, it is your responsibility to determine certification status.

**Musculoskeletal — Guidance/Advisory Criteria**

- [Skill Performance Evaluation — 49 CFR 391.49](#)
- [Musculoskeletal Tests](#)
- [Neuromuscular Diseases](#)
Diabetes Mellitus (DM) – 49 CFR 391.41(b)(3)

Summary of regulation, 49 CFR 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."

Relevance to Driving

The Center for Disease Control and Prevention (CDC) 2007 National Diabetes Fact Sheet reports the prevalence of diagnosed and undiagnosed DM in the United States, for all ages, as:

- Total: 23.6 million people, or 7.8% of the population, have DM.
- Diagnosed: 17.9 million people.
- Undiagnosed: 5.7 million people.

The most common form of DM is Type 2 (adult onset or non-insulin-dependent DM). Individuals with Type 2 DM:

- Can produce insulin and have intact blood glucose control counter-regulatory mechanisms.
- May preserve blood glucose control counter-regulatory mechanisms for many years with lifestyle changes and oral hypoglycemic medications.
- May, over time, have insulin production fail and require insulin replacement therapy.

While detection and management of hyperglycemia and hypoglycemia are important aspects of the overall medical management of a person with DM, the detection and management of hypoglycemia is more relevant to safety considerations, in the certification of the CMV driver, with DM.

Factors related to commercial driving that affect blood glucose control include:

- Fatigue.
- Lack of sleep.
- Poor diet.
- Missed meals.
- Emotional conditions.
- Stress.
- Concomitant illness.

These same factors may hasten the need for the driver with DM who does not use insulin to start insulin therapy. Poorly controlled DM can result in serious, life-threatening health consequences. However, with good management of the disease process, a driver with DM can safely operate a CMV.
**Hyperglycemia Risk**

Poor blood glucose control can lead to fatigue, lethargy, and sluggishness. Complications related to acute hyperglycemia may affect the ability of a driver to operate a motor vehicle. Although ketoacidosis and hyperosmolar states significantly impair cognitive function. Onset is gradual and frequency is generally low.

The complications of DM can lead to medical conditions severe enough to be disqualifying, such as neuropathy, retinopathy, and nephropathy. Accelerated atherosclerosis is a major complication of DM involving the coronary, cerebral, and peripheral vessels. Individuals with DM are at increased risk for coronary heart disease and have a higher incidence of painless myocardial infarction than individuals who do not have DM.

**Hypoglycemia Risk**

Preventing hypoglycemia is the most critical and challenging safety issue for any driver with DM. Hypoglycemia can occur in individuals with DM who both use and do not use insulin. Mild hypoglycemia causes rapid heart rate, sweating, weakness, and hunger. Severe hypoglycemia can cause symptoms that interfere with safe driving. The FMCSA defines a severe hypoglycemic reaction as one that results in:

- Seizure.
- Loss of consciousness.
- Need of assistance from another person.
- Period of impaired cognitive function that occurred without warning.

The occurrence of a severe hypoglycemic reaction while driving endangers the safety and health of the driver and the public.

**Key Points for Diabetes Mellitus Medical Examination**

Medical qualification of the driver with DM should be determined through a case-by-case evaluation of the ability of the driver to manage the disease and meet qualification standards. The FMCSA Examination Report form includes health history questions and physical examination checklists. Additional questions about DM symptoms, treatment, and driver adjustment to living with a chronic condition should be asked to supplement information requested on the form.

**Regulations**

**Does the driver have DM or elevated blood glucose controlled by:**

- Diet?
- Pills?
- Insulin?
- Other injectable medications?

**Recommendations — Questions you may consider**
Does the driver:

- Routinely monitor blood glucose level?
- Use over-the-counter medications and/or supplements?
- Use an incretin mimetic?
- Have a history of fainting, dizziness, or loss of consciousness?
- Have a history of hypoglycemic reactions that resulted in:
  - Seizure?
  - Loss of consciousness?
  - Need of assistance from another person?
  - Period of impaired cognitive function that occurred without warning?

**NOTE:** When the driver has a positive history for severe hypoglycemic reactions, ask about occurrences:

- One or more occurrences within last 12 months?
- Two or more occurrences within last 5 years?

**Regulations**

**On examination, does the driver have:**

- Glycosuria (dip stick urinalysis)?
- Signs of target organ damage associated with dysfunction of the senses, including:
  - Retinopathy?
  - Macular degeneration?
  - Peripheral neuropathy?
- Signs of target organ damage that can cause gradual or sudden incapacitation, including:
  - Coronary heart disease?
  - Cerebrovascular disease, including:
    - Transient ischemic attack?
    - Embolic or thrombotic stroke?
    - Peripheral vascular disease?
  - Autonomic neuropathy?
  - Nephropathy?

**Remember**

The diabetes qualification standard parameter is use of insulin, not the diagnosis of diabetes mellitus.
Diabetes Mellitus — Guidance/Advisory Criteria

Use the following links to select diabetes mellitus guidance/advisory criteria key points:

**Diabetes Mellitus Topics**

- Diabetes Mellitus
- Incretin Mimetic Therapy
- Insulin Therapy
- Oral Hypoglycemics
- Federal Diabetes Exemption Program

**Other Diseases – 49 CRF 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 his/her ability to drive a commercial motor vehicle safely."

Disorders of the genitourinary and gastrointestinal systems have not been widely associated with significant impact on driving ability for drivers as a group but may, on a case-by-case basis, interfere with safe driving. You should not certify the driver until the etiology is confirmed, and treatment has been shown to be adequate/effective, safe, and stable.

**Regulations**

**Does the driver have:**

- Any illness or injury in the last 5 years?
- Kidney disease, dialysis treatment?
- Liver disease?
- Digestive problems?

**Regulations**

**On examination, does the driver have:**

- Abnormal urinalysis?
- Enlarged liver or kidney?
- Enlarged spleen?
• Masses?
• Bruits?
• Hernia?

Other Diseases — Guidance/Advisory Criteria

Other Diseases/Topics

• Nephropathy
• Hernia

Psychological – 49 CFR 391.41(b)(9)

Summary of regulation, 49 CFR 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 his/her ability to drive a commercial motor vehicle safely."

Relevance to Driving

A fundamental question when deciding if a commercial driver should be certified is whether the driver has a condition that increases the risk of sudden death or incapacitation so that the condition creates a danger to the safety and health of the driver, as well as to the public sharing the road.

The qualification standards cover 13 areas that directly relate to the driving function; however, on a case-by-case basis, the ME may use their clinical skills and knowledge of the FMCSA physical qualification standards to evaluate the overall medical fitness for duty of the driver.

ME’s are expected to assess the nature and severity of medical conditions and determine certification outcomes on a case-by-case basis with knowledge of the demands of commercial driving.

• "Emotional or adjustment problems contribute directly to an individual’s level of memory, reasoning, attention, and judgment. These problems often underlie physical disorders."

• "A variety of functional disorders can cause drowsiness, dizziness, confusion, weakness, or paralysis that may lead to incoordination, inattention, loss of functional control, and susceptibility to crashes while driving."

• "Physical fatigue, headache, impaired coordination, recurring physical ailments, and chronic ‘nagging’ pain may be present to such a degree that certification for commercial driving is inadvisable."

• Disorders of the genitourinary and gastrointestinal systems have not been widely associated with significant impact on driving ability for drivers as a group but may, on a case-by-case basis, interfere with safe driving. You should not certify the driver until the etiology is confirmed, and treatment has been shown to be adequate/effective, safe, and stable.
Safe and effective operation of a CMV requires high levels of physical strength, skill, and coordination as well as the ability to maintain adequate attention and react promptly and appropriately to traffic, emergency situations, and other job-related stressors.

Some psychological or personality disorders can directly affect memory, reasoning, attention, and judgment. Somatic and psychosomatic complaints should be thoroughly examined when determining overall fitness to drive. Disorders of a periodically incapacitating nature, even in the early stages of development, may warrant disqualification.

**Risk factors associated with personality disorders can interfere with driving ability by compromising:**

- Attention, concentration, or memory affecting information processing and the ability to remain vigilant to the surrounding traffic and environment.
- Visual-spatial function (e.g., motor response latency).
- Impulse control, including the degree of risk taking.
- Judgment, including the ability to predict and anticipate.
- Ability to problem solve (i.e., executive functioning), including the ability to respond to simultaneous stimuli in a changing environment when potentially dangerous situations could exist.

**The driver with:**

- Active psychotic disorder may exhibit unpredictable behavior and poor judgment.
- Mood disorder may, during a
  - Manic episode exhibit grandiosity, impulsiveness, irritability, and aggressiveness.
  - Depressive episode exhibit slowed reaction time and poor judgment.
- Personality disorders, depending on severity and type, may exhibit inflexible and maladaptive behaviors.

**Key Points for Psychological Examination**

You may ask about psychological symptoms and screening tests when indicated by the driver's affect, behavior, or your interactions with the driver.

It is the degree of inappropriateness and the cumulative effect of driver presentation and interaction that provide a cue that a driver may require a more in-depth mental health evaluation.

**Regulations**

**Does the driver:**

- Have a nervous or psychiatric disorder (e.g., severe depression)?
- Have loss of or altered consciousness?
- Use medication for a nervous or psychiatric disorder?
• Use alcohol regularly and/or frequently?
• Use narcotic or habit-forming drugs?

Recommendations

Does the driver display any of the following:

• Inappropriate dress?
• Suspiciousness?
• Evasiveness?
• Threatening behavior?
• Hostility?
• Distractibility?
• Flat affect or lack of emotional expression?
• Unusual or bizarre ideas?
• Auditory or visual hallucinations?
• Dishonesty?
• Omission of important information?

Recommendations — Questions you may consider:

• Have you ever thought of hurting yourself?
• Have you ever thought of suicide?
• Have you attempted suicide, including using a vehicle like a car or truck?
• Do you ever get into fights?
• Have you ever thought of hurting or killing other people?
• Do you ever have problems with your concentration or memory?
• Have you ever heard voices that other people don't hear or that weren't really there?
• Have you ever seen things that weren't really there?
• Have you ever been hospitalized for psychiatric problems?
• Are you taking any medication for nerves?
• Have you ever used medicines for a purpose other than what was prescribed?
Recommendations — In addition to health history, you may inquire about

- Work history.
- Driving history.
- Drug and alcohol history.
- Military history, including type of discharge.
- Legal history.

Regulations

On examination, does the driver have:

- Inappropriate affect
- Cognitive deficits
- Tremor?
- Enlarged liver and/or spleen?
- Signs of alcoholism or problem drinking?
- Signs of drug abuse?

Psychological — Guidance/Advisory Criteria

There are three categories of risk associated with psychological disorders.

- The mental disorder, including symptoms and/or disturbances in performance that are an integral part of the disorder and may pose hazards for driving.

- Residual symptoms occurring after time-limited reversible episodes or initial presentation of the full syndrome that can interfere with safe CMV driving.

- Psychopharmacology, as many psychotropic medications can compromise performance to the degree that CMV driving would be hazardous.

The recommendations do not support automatic exclusion from CMV driving based solely on the diagnosis. Typically, the more serious the diagnosis, the more likely it is that the driver will be medically disqualified. Careful consideration should also be given to the side effects and interactions of medications in the overall qualification determination.

Many of the medications used to treat psychological disorders have effects and/or side effects that render driving unsafe. The recommendations use the degree of impairment produced by a 0.04 percent blood alcohol concentration as a benchmark. This standard was chosen based on the FMCSA exclusionary rule related to alcohol usage.
Psychological – Guidance/Advisory Criteria

- Adult Attention Deficit Hyperactivity Disorder
- Bipolar Mood Disorder
- Major Depression
- Personality Disorders
- Schizophrenia and Related Psychotic Disorders
Part IV-iv
Drug & Alcohol Usage
Disqualifying/Qualifying Medications & Medical Exemptions


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

b(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.

Exception. A driver may use such a substance or drug, if the substance or drug is prescribed by a licensed medical practitioner who:

Is familiar with the driver’s medical history and assigned duties; and

Has advised the driver that the prescribed substance or drug will not adversely affect the driver’s ability to safely operate a commercial motor vehicle."

b(13) "Has no current clinical diagnosis of alcoholism."

Relevance to Driving

There is overwhelming evidence that drug and alcohol use and/or abuse interferes with driving ability. Although there are separate standards for alcoholism and other drug problems, in reality much substance abuse is poly-substance abuse, especially among persons with antisocial and some personality disorders.

Alcohol and other drugs cause impairment through both intoxication and withdrawal. Episodic abuse of substances by commercial drivers that occurs outside of driving periods may still cause impairment during withdrawal. However, when in remission, alcoholism is not disabling unless transient or permanent neurological changes have occurred.

Alcohol and other drug dependencies and abuse are profound risk factors associated with personality disorders that interfere with safe driving.

Even in the absence of abuse, the commercial driver should be made aware of potential effects on driving ability resulting from the interactions of drugs with other prescription and nonprescription drugs and alcohol.

The Office of Drug & Alcohol Policy & Compliance oversees intermodal (e.g., Federal Motor Carrier Safety Administration (FMCSA), Federal Railroad Administration, Federal Transit Administration, and Federal Aviation Administration) drug and alcohol testing programs in accordance with the Omnibus Transportation Employee Testing Act of 1991.

See the FMCSA Drug and Alcohol Program Web page for more information about the regulations and guidelines governing CMV drivers.

The effects and/or side effects of medications may interfere with safe driving. The driver may experience an altered state of alertness, attention, or even temporary confusion. Other medications may cause physical symptoms such as hypotension, sedation, or increased bleeding that can interfere
with task performance or put the driver at risk for gradual or sudden incapacitation. Combinations of medications and/or supplements may have synergistic effects that potentiate side effects, causing gradual or sudden incapacitation.

The demands of commercial driving may complicate adherence to prescribed dosing intervals and precautions. Irregular meal timing, periods of sleep deprivation or poor sleep quality, and irregular or extended work hours can alter the effects of medicine and contribute to missed or irregular dosing. Physical demands may increase pain and the need for medication use.

**Three types of medications may be used by the commercial driver:**

- Prescription.
- Over-the-counter (OTC).
- Supplements and herbs.

Every year, more medications are available without prescription and provider supervision. Nonprescription medications are not necessarily safe to use while driving. In the advisory criteria general information, ME’s are instructed to discuss common prescriptions and OTC medications relative to the side effects and hazards of these medications while driving. In addition, ME’s should advise the CMV driver to read and adhere to warning labels on all medications.

**General Purpose of Health History and Physical Examination**

As a ME your fundamental obligation is to medically evaluate a driver to ensure that the driver has no medical condition that interferes with the safe performance of driving tasks on a public road. If a driver has a current drinking problem, clinical alcoholism, uses a Schedule I drug or other substance such as an amphetamine, a narcotic, or any other habit-forming drug, the effects and/or side effects may interfere with driving performance, thus endangering public safety.

During the physical examination, you should ask the driver to provide a complete history of medication use, including OTC medications and herbal supplements. The FMCSA Examination Report form includes health history questions and physical examination checklists. Additional questions should be asked to supplement information requested on the form. You may ask questions to ascertain the level of knowledge regarding appropriate use of medications while driving.

**Key Points for Medical Assessment for Drug Abuse and/or Alcoholism**

You may use drug and/or alcohol abuse screening tests.

**NOTE:** A test for controlled substances is not required as part of the medical certification process. The FMCSA or the employer should be contacted directly for information on controlled substances and alcohol testing under Part 382 of the FMCSR.

**Regulations**

**Does the driver use:**

- Alcohol, regularly and frequently?
- Narcotic or habit-forming drugs?
Does the driver use medications to:
- Treat cardiovascular disease?
- Reduce hypertension?
- Control blood glucose level?
  - Oral hypoglycemics?
  - Insulin?
- Control seizures or treat epilepsy?
- Treat nervous or psychiatric disorders?

Did the driver list all medications (including OTC medications) used regularly or recently?

**Recommendations — Questions that you may consider**

**Does the driver who uses alcohol:**
- Have a consumption pattern that indicates additional evaluation may be needed based on quantity per occasion or per day/week?
- Pass standardized screening questions (e.g., Alcohol Use Disorders Identification Test (AUDIT), CAGE, and T-ACE)?
- Have a history of driver and/or family alcohol-related medical and/or behavioral problems?

**Does the driver who uses narcotic or habit-forming drugs have a:**
- Therapeutic or habitual need?
- Goal to alter mood, affect, or state of consciousness?
- Goal to extend physical limits by use of stimulants?
- History of drug rehabilitation?

**NOTE:** Certification may require successful completion of a substance abuse professional (SAP)-required drug rehabilitation program.

- Participation in a self-help program cannot be substituted for completion of a SAP-required drug rehabilitation program.
- Voluntary, ongoing participation in a self-help program to support recovery is not disqualifying.
Recommendations — Questions that you may ask:

Does the driver experience:

- Dizziness or light-headedness?
- Hypertension?
- Sedation?
- Depressed mood?
- Cognitive deficit?
- Decreased reflex responses?
- Unsteadiness?

Regulations

On examination, does the driver have signs of alcoholism, problem drinking, or drug abuse, including:

- Tremor.
- Enlarged liver.

On examination and evaluation, does the taken medication have:

- The desired effect on the underlying disease (e.g., blood pressure is lowered)?
- Side effects that interfere with safe driving (e.g., uncontrollable tremor or orthostatic hypertension)?

Important considerations for medication use while driving

Does the medication:

- Indicate the presence of an underlying disqualifying disease or injury?
- Effectively treat the disease or medical condition?
- Exhibit side effects that interfere with safe driving?
- Have side effects that interfere with lifestyle functions such that the driver may cease to comply with treatment.
- Have potential for gradual or sudden incapacitation, or exacerbation of underlying medical condition, due to missed dose (e.g., seizure, psychosis)?
- Require monitoring to maintain a therapeutic dose or prevent toxicity (e.g., Coumadin)?
- Interact with other drugs, food, and/or alcohol, interfering with the ability to drive?
Does the driver:

- Understand and comply with the medication plan, including monitoring?
- Know what warning signs might indicate medication toxicity, interaction, etc.?
- Store medications properly when driving long haul or cross country?
- Read and understand warning labels on medications and supplements?
- Consult the treating healthcare professional and/or a pharmacist before using a new medication or combining medications while driving.

**Medication, Drug Abuse and Alcoholism — Guidance/Advisory Criteria**

- Alcoholism
- Drug Abuse
- Drug and Alcohol Program
- About 49 CFR Part 382 Controlled Substances and Alcohol Use and Testing
- About 21 USC Sec. 812 Schedules of Controlled Substances
Part V
Additional Testing & Evaluation
Additional Testing and Evaluation

The FMCSA CMV driver examination diagnostic testing requirements are:

- a. Urine test for specific gravity, protein, blood and glucose (§391.41(a)(3)(i));
- b. Whisper or audiometric testing (§ 391.41(b)(11));
- c. Vision testing for color vision, distant acuity, horizontal field of vision (§ 391.41(b)(10));
- d. Blood pressure and pulse (§ 391.41(b)(6));

However, the ME should consider the need for additional testing and consultation when indicated to determine the driver’s medical and physical condition.

**Remember:** When requesting additional evaluation from a specialist, the specialist must understand the role and function of a driver; therefore, it is helpful if you include a copy of the description of the driver role found in the Examination Report form and the applicable medical standard and guidelines.

**Remember:** 13 certification standards are used to determine medical fitness for duty. Four standards are objective: vision, hearing, epilepsy and insulin dependent DM. The other nine “discretionary” standards rely of the ME’s clinical judgment for determination of fitness for duty.

**Remember:** When a CMV driver is under the care of a practitioner (particularly a specialist) the ME should consider incorporating the clinician’s opinion and endorsement of the driver’s qualifications to safely perform CMV driving tasks and duties.

**Remember:** The ME can always certify for a period of time less than the 2 year maximum and the ME can always temporarily disqualify a CMV driver to seek further information or await improvement in a temporary medical condition.
**Remember:** When the ME is unsure of certification of a CMV driver, it is the ME’s responsibility to seek further clinical information. In other words, if it doesn’t smell right don’t approve. If unsure don’t approve.

**Remember:** You are never required to certify a driver for a certification interval longer than what you deem necessary to adequately monitor driver medical fitness for duty.

**Remember:** Medical fitness for duty includes the ability to perform strenuous labor. Overall requirements for commercial drivers as well as the specific requirements in the job description of the driver should be the deciding factors in the certification process.

The ME should consider specialist referral/consultation for CMV drivers who exhibit evidence of any of the following disorders (§ 391.43(e) and (f)):

- Vision (e.g., retinopathy, macular degeneration);
- Cardiac (e.g., myocardial infarction, coronary insufficiency, blood pressure control);
- Pulmonary (e.g., emphysema, fibrosis, obstructive sleep apnea);
- Endocrine (e.g., diabetes);
- Musculoskeletal (e.g., neuromuscular disease);
- Mental / emotional health (e.g., depression, schizophrenia); or
- Other medical condition(s) that may interfere with ability to safely operate a CMV...
Part VI
Driver Health Counseling
Driver Health Counseling

The ME should inform and educate the CMV driver about non-disqualifying medical conditions that require remedial care. The counseling should address:

a. Consequences of non-compliance with a care plan for conditions that have been advised for periodic monitoring with primary healthcare provider;

b. Side effects and interactions of medications (e.g., narcotics, anticoagulants, psychotropics) including products acquired over-the-counter (e.g., antihistamines, cold and cough medications or dietary supplements) that could negatively affect driving;

c. The effect of fatigue, lack of sleep, poor diet, emotional conditions, stress, and other illnesses that can affect safe driving;

d. If driver is a contact lens user, the importance of carrying a pair of glasses while driving;

e. If driver uses a hearing aid, the importance of carrying a spare power source for the device while driving;

f. If driver has a history of deep vein thrombosis, the risk associated with inactivity while driving and interventions that could prevent another thrombotic event;

g. If driver has a diabetes exemption, that he/she should:
   - carry a rapidly absorbable form of glucose while driving;
   - self-monitor blood glucose one hour before driving and at least once every four hours while driving;
   - comply with each condition of his/her exemption;
   - plan to submit glucose monitoring logs for each annual recertification;

h. Corrective or therapeutic steps needed for conditions which may progress and adversely impact safe driving ability (e.g., seek follow-up from primary care physician);

i. Steps needed for reconsideration of medical certification if driver is certified with a limited interval, e.g., the return date and documentation required for extending the certification time period.
Part VII
Driver Qualification or Disqualification
The FMCSA relies on the ME to assess and determine if the CMV driver meets the physical qualification requirements cited in 49 CFR 391.41. In some cases, ME’s will also consider reports and recommendations from the primary care provider and/or specialists treating or evaluating the driver to supplement the examination and ensure adequate medical assessment.

As a ME, you are responsible for determining the certification decision and signing the Examination Report form and issuing an Examiner's Certificate to the CMV drivers determined to be medically fit for duty.

The certification decision is limited to the certification and disqualification options printed on the Examination Report form. The maximum time a driver can be certified is 2 years. ME’s can, however, certify for a period of time less than 2 years.
As a ME, you determine when a driver meets physical qualification requirements. Examination Report form and on the Examiner's Certificate. You also determine when the driver must repeat the physical examination for continuous certification. Although the ME cannot exceed the maximum certification period, ME’s are never required to certify a driver for a certification interval longer than deemed necessary to adequately monitor driver medical fitness for duty.

Certify — Determine Certification Interval Overview

Regulations — Maximum certification 2 years

Some FMCSA medical guidelines include recommendations for maximum certification intervals 1 year or less. Recommended maximum certification periods are considered best practices.

- Mark the “Meets standards, but periodic monitoring required due to ______” box.
- Note the reason for periodic monitoring.
- Indicate the length of certification by checking 3 or 6 months, 1 year, or Other and write in the time frame (e.g., 1 month).
- Calculate the expiration date from the date of the initial physical examination, not a follow-up examination date.

As a ME, you must specify, as a requirement for certification, that a driver wear corrective lenses and/or a hearing aid when applicable.

Qualify – Skill Performance Evaluation (SPE) Certificate

By marking the SPE option, you certify that the driver:

- Fails to meet the limb requirements of 49 CFR 391.41(b)(1) or (2).
- Meets all other physical requirements cited in 49 CFR 391.41(b).
- Must have both a valid SPE certificate and ME’s Certificate to drive.

As a ME, you start the SPE program application process by first determining if the driver is otherwise medically qualified. The SPE certificate is issued for 2 years. A copy of the Examination Report form is required with initial and renewal SPE applications.

Certify — Require Driver To Have a Federal Exemption

Regulations — Maximum certification 1 year

Qualify – With a Federal Exemption

There are two Federal medical exemption programs for drivers:
- The Diabetes Exemption Program allows some drivers with diabetes mellitus who use insulin replacement therapy to drive a CMV.

- The Vision Exemption Program allows some drivers with monocular vision to drive a CMV.

As a ME, you start the exemption program application process by first determining if the driver is otherwise medically qualified except for monocular vision or the use of insulin. A copy of the Examination Report form is required with both the initial and renewal Federal exemption applications. By marking “Accompanied by a ________ waiver/exemption,” circling "exemption," and writing in the Federal program name, you certify that the driver:

- Fails to meet the insulin use requirement of 49 CFR 391.41(b)(3) or the monocular vision requirement of 49 CFR 391.41(b)(10).

- Meets all other physical requirements cited in 49 CFR 391.41(b).

- Must also have a valid Federal medical exemption certificate to drive.

**Qualify – By Operation of 49 CFR 391.64**

- Applies to a small number of individuals who participated in the FMCSA studies conducted prior to the implementation of the medical exemption programs.

- By checking the “By Operation of 49 CFR 391.64,” option, you certify that the driver:
  - Presented documentation of participation in a study.
  - Continues to meet 49 CFR 391.64 requirements.
  - Is otherwise medically fit for duty.

**Qualify – Driving Within an Exempt Intracity Zone**

- Intracity zones are geographical areas defined in the regulations.

- By checking the “Driving within an exempt intracity zone (See 49 CFR 391.62)” option, you certify that the driver:
  - Is otherwise medically fit for duty except for the exempted condition.
  - The exempted condition remains stable.
  - Remains in medical compliance with the requirements of section 391.62.
Examination Report Form – **Disqualify**

As a ME, you must disqualify the driver who does not meet one or more of 49 CFR 391.41 physical qualification standards. You should complete the physical examination of the driver and discuss with him/her the reason(s) for disqualification and any steps that can be taken to meet certification standards.

**Disqualify — Discuss and Document Decision**

**Regulations — Disqualify driver who does not meet standards**

As a medical examiner, you must disqualify the driver who:

- Fails to meet a physical qualification requirement cited in the standards (e.g., vision test result, hearing loss test result, epilepsy, or insulin use).
- You believe has a medical condition that endangers the health and safety of the driver and the public.

Document the decision to disqualify on the Examination Report form.

- Mark the "Does not meet standards" box.
- Note the reason for disqualification.
- Document the discussion with the driver explaining the rationale for the decision to disqualify.

**NOTE:** DO NOT issue an Examiner's Certificate.

**Disqualify Temporarily**

When the disqualifying condition or treatment has a clinical course likely to restore driver medical fitness for duty, you may complete the:

- “Temporarily disqualified due to (condition or medication):_____________” line.
- “Return to medical examiner's office for follow up on _________________” line.

When a recommended waiting period is applicable, the date:

- Should be greater than or equal to the waiting period.
- Should be greater than or equal to the longest waiting period when the driver has multiple medical conditions.

**NOTE:** DO NOT issue an Examiner's Certificate.

**REMEMBER**

The driver is disqualified and not allowed to operate a CMV until a ME finds the driver to be medically fit for duty.
When ME’s determine that a driver is medically fit to drive and able to perform the non-driving responsibilities and duties, they are to certify the driver and issue an Examiner's Certificate.

When the ME determines that a driver has a health history or condition that does not meet physical qualification standards, they must not certify the driver. However, ME’s should complete the examination to determine if the driver has more than one disqualifying condition. Some conditions are reversible, and the CMV driver may take actions that will enable him/her to meet qualification requirements with successful treatment.

Certification Status Discussions

Discussion Regarding Certification Decision

You must discuss your certification decision with the driver.

Ensure that the driver understands the certification decision and any:

- Reason for periodic monitoring and shortened examination interval.
- Additional requirements associated with certification.
- Examiner's Certificate expiration information.
- Reason for disqualification.
- Steps that can be taken to meet certification standards.
- Temporary disqualification.
  - Reason (condition or medication).
  - Length of waiting period.
  - Conditions that could restart the waiting period.
  - List of any documentation the driver is to provide to the medical examiner.

**NOTE:** A driver is certified from the date of examination. If only the disqualifying condition, e.g., blood pressure, is evaluated at the next examination following temporary disqualification, the date of the initial examination is used to calculate the certification period. If the examiner performs a complete physical examination, then the certification period is calculated from the date of this examination.

**Regulations — You must document the driver physical examination**

You must record the results of every driver physical examination, in accordance with the Examination Report form and the instructions cited in 49 CFR 391.43.
Examination Report Form

- ME’s shall retain the driver medical records for a minimum of 3 years.
- ME’s will need to provide a copy of the Examination Report form to a driver who is applying for, or renewing a:
  - Skill Performance Evaluation (SPE) certificate.
  - Diabetes exemption certificate.
  - Vision exemption certificate.
Part VIII
Issue Medical Examiner Certificate
**Review & Practice Medical Examiner’s Certificate**

**Regulations — ME issues certificate to medically qualified driver**

When a ME finds that the driver examined is medically qualified to operate a CMV in accordance with 49 CFR 391.41(b), the ME should complete a certificate as prescribed in 49 CFR 391.43(h) and furnish the original to the CMV driver who was examined. The ME may provide a copy to a prospective or current employer requesting one.

**Issue the Examiner's Certificate**

1. Ensure that the name of the driver matches the name on the Examination Report form.

2. Mark any certification requirement that applies:
   — wearing corrective lenses
   — wearing hearing aid
   — accompanied by a waiver or exemption
   — driving within an exempt intracity zone (49 CFR 391.62)
   — accompanied by a Skill Performance Evaluation (SPE) Certificate
   — qualified by operation of 49 CFR 391.64
3. Write “Federal vision” or “Federal diabetes” when exemption certificate is required.

4. Sign the certificate and complete the ME information.

5. Write the date of the medical examination.

6. Have the driver sign the certificate and compare this with the information provided by the driver.

7. Verify that the expiration date does not exceed the certification interval (maximum certification period is 2 years).

**Examiner's Certificate**

- ME’s shall provide the original to the driver you examined and found medically fit for duty.
- A copy of the driver medical records, including the certificate, must be retained for 3 years.
- ME’s may provide a copies of driver medical records to a prospective or current employer upon request.
- The CMV driver must carry the Examiner's Certificate while operating a CMV. The certificate may be:
  - The original certificate.
  - A copy of the original certificate.
  - A reduced-size copy of the original certificate (e.g., wallet size).