



TeamCME
National Network of DOT Medical Examiners

***Accredited Training for the
National Registry of
Certified
Medical Examiners***

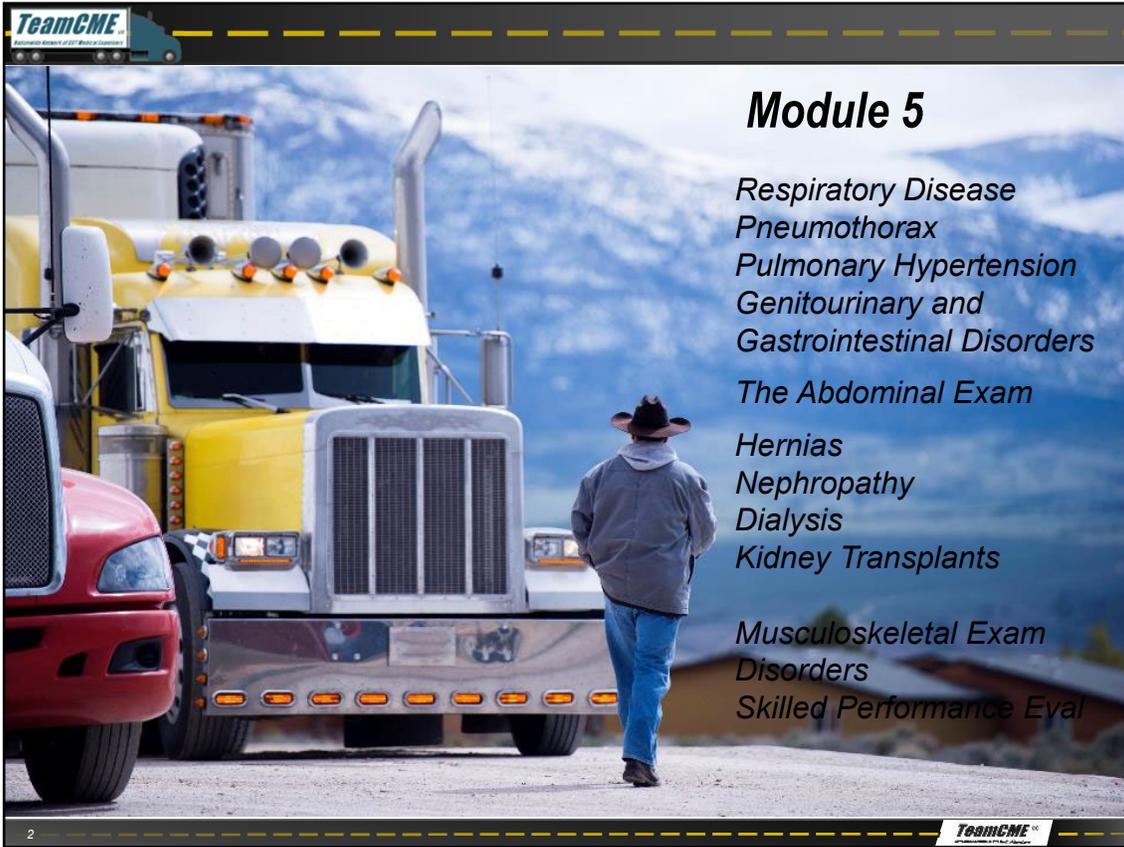
Module #5

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Welcome to the TeamCME accredited training for the national registry of certified Medical Examiners. This is Module #5.



Module 5

- Respiratory Disease*
- Pneumothorax*
- Pulmonary Hypertension*
- Genitourinary and Gastrointestinal Disorders*
- The Abdominal Exam*
- Hernias*
- Nephropathy*
- Dialysis*
- Kidney Transplants*
- Musculoskeletal Exam Disorders*
- Skilled Performance Eval*

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In Module 5 we will be discussing Respiratory Disease, Pneumothorax, GI and GU disorders and diseases, and finally the musculoskeletal exam with associated disorders.

Acute Infectious Respiratory Diseases

Common Cold, Influenza, Acute Bronchitis:

- Driver should obtain proper treatment for the illness
- No driving for 12 hours after taking sedating medications
- Avoid driving during time disease is contagious
- Symptoms can be debilitating and interfere with safe driving

Certification Interval: 2 years

Drivers that have an acute infectious disease, such as a cold, the flu, or acute bronchitis, should avoid driving during the time they are contagious. They should be relieved from driving until their treatment has been completed. If they are taking sedating medications, they should not drive for 12 hours. There is no recommended waiting period, and a driver can be certified as soon as it's determined that the nature or severity of their condition is not a risk to themselves or to the public. Medical examiners should be aware of prescription and over the counter medications that can cause drowsiness and loss of attention, such as antihistamines and narcotic antitussives. Once the driver has recovered to a point where they are no longer a risk to themselves or to the public, they can be certified to drive for two years.

Atypical Tuberculosis

- Noninfectious
- Medications generally not needed
- If progressive, respiratory insufficiency may develop, associated with cough, mild hemoptysis, sputum production.
- Main issue is to *determine the amount of disease an individual has, and the extent of their symptoms*
 - Do their symptoms and medication side effects interfere with safe driving?
- Examiner should consider if a consultation with PCP or specialist is necessary to determine qualification status

Certify If:

- Relatively stable
- Normal lung function
- Tolerates medical regimen

The driving certification decision for drivers that have atypical tuberculosis is determined by the severity of the disease and any symptoms that are present. Atypical tuberculosis is generally non-infectious and is not usually treated with medications. If, however, it is a progressive form respiratory insufficiency may develop. There is no recommended time frame for a waiting period, but the driver should not be certified to drive until the etiology is confirmed, treatment is adequate, effective and the driver is safe and stable. Otherwise, drivers with atypical tuberculosis can be certified if they are relatively stable. They must meet the normal or general lung function requirements and they tolerate their treatment.

Atypical Tuberculosis

Do Not Certify if:

- Extensive pulmonary dysfunction
- Weakness/Fatigue
- Adverse reaction to medical treatment
- If suspected to be progressive, ME should obtain further pulmonary testing

Certification Interval: 2 years

Drivers with atypical tuberculosis should not be certified to drive if they have extensive pulmonary dysfunction, weakness, fatigue, or are having adverse reactions to their treatment. If a medical examiner suspects that the atypical tuberculosis for this driver is a progressive form, the medical examiner should perform pulmonary function testing before allowing the driver to drive. If the driver meets the requirements, the driver can be certified for up to two years.

Pulmonary Tuberculosis (TB)

- Treatment is extremely successful
- TB only persists in individuals while on therapy or if they are noncompliant with treatment (streptomycin)
- If TB developed within the last year, prophylactic therapy should take place
 - Does not limit driver activities unless medication side effects
- Advanced TB may cause respiratory insufficiency

Certify If:

- Treatment has been completed and no longer contagious
- Treatment did not affect hearing/balance
- No side effects that interfere with safe driving

Pulmonary Tuberculosis, or TB, is contagious. Fortunately, modern treatment is very successful. However, tuberculosis persists in some individuals while they are in therapy or especially if they are non-compliant. Advanced Tuberculosis may cause respiratory insufficiency but the recurrent risk if their treatment is successful and they are compliant is very low. There is no recommended time frame or waiting period for drivers with pulmonary tuberculosis. However, drivers with pulmonary tuberculosis should not be certified until the driver is determined not to be contagious. Their etiology is confirmed, treatment has shown to be adequate, effective, safe, and stable. Drivers can be certified if they are not contagious. If they have completed streptomycin treatment without effecting their hearing or balance. If they are compliant with their therapy and if they have no side effects that interfere with safe driving. The reason that a driver cannot be certified until they have completed their streptomycin treatment is that streptomycin damages the eighth cranial nerve and can affect hearing and balance.

Pulmonary Tuberculosis (TB)

Do Not Certify If:

- Advanced TB not meeting pulmonary function test criteria
- Chronic TB
- Treatment incomplete/noncompliance
- Balance/hearing affected

Certification Interval: 2 years

Drivers with Pulmonary tuberculosis should not be certified if their tuberculosis is advanced, and they do not meet the pulmonary testing criteria guideline. Or, if they have chronic tuberculosis or if they have exhibited treatment noncompliance, or did not complete their streptomycin treatment, or if they have residual nerve damage affecting balance and hearing. Drivers that have a positive intermediate tuberculosis skin test is indicated that they have had a previous infection. A positive PPD skin test associated with a normal chest x-ray requires no further action. However, x-ray changes otherwise suggesting TB should receive further evaluation. If TB conversion occurred within the last year, an active disease may develop, and treatment should take place. However, this should not limit the driver's activities unless he is having medication side effects or adverse reactions related to the treatment otherwise drivers that meet the requirement that have pulmonary tuberculosis can be certified for up to two years.

Non-Infectious Respiratory Diseases

Various diseases or deformities that cause significant long-term changes that interfere with lung function

- Chest Wall Deformities
- COPD
- Cystic fibrosis
- Interstitial Lung disease
- Pneumothorax

Difficulty breathing in a resting position is an indicator for pulmonary function testing.

Various non-infectious respiratory diseases over the long run cause significant pulmonary changes that will interfere with driving as with all respiratory diseases. Difficulty breathing in a resting position is an indicator that pulmonary testing is needed or required. Non-infectious respiratory diseases include chest wall deformities, COPD, cystic fibrosis, interstitial lung disease and pneumothorax.

Chest Wall Deformities

Involve the mechanics of breathing. Usually affect the driver's vital capacity.

Examples include excessive kyphosis, scoliosis, pectus excavatum

- Individuals may be sensitive to effects of alcohol, antidepressants, and sleeping medications
- Drivers should have an airway function which is near normal
- No medications used to treat these conditions
- Ankylosing spondylitis, massive obesity, and recent thoracic surgery can decrease the driver's pulmonary function and be a risk to safe driving.

Certify If:

- Nature/Severity no danger to driver health, public

Chest wall deformities involve the mechanics of breathing and predominantly affect the driver's vital capacity. Chest wall deformities include excessive kyphosis, scoliosis and pectus excavatum. These individuals are sensitive to alcohol, antidepressants and sleep medications, even in small doses. Drivers with chest wall deformity should have an airway function that is near normal. Other medical conditions such as ankylosing spondylitis, recent thoracic surgery or even massive obesity can decrease the driver's pulmonary function and may be a concern for safe driving. Drivers that have chest wall deformities have no recommend waiting time or waiting period. However, they should not be certified to drive until the etiology is confirmed and their treatment has shown to be adequate, effective, safe and stable.

Chest Wall Deformities

Certify If:

- Nature/Severity no danger to driver health, public

Do Not Certify if:

- Hypoxemia at rest
- Chronic respiratory failure
- Hx of continuing cough with cough syncope

Certification Interval: 2 years

Drivers with chest wall deformities can be certified to drive if the nature and severity of their condition is found not to be a danger to the driver's health or to public safety. Drivers with chest wall deformities that should not be certified to drive are those that have hypoxemia at rest, chronic respiratory failure, or a history of continuing cough associated with cough syncope. Remember that difficulty breathing at rest is an indication for pulmonary testing. Drivers that have chest wall deformities can be certified for an interval of up to two years.

Cystic Fibrosis

- Requires continuous antibiotic therapy and therapy to mobilize abnormal secretions.
- May result in limited physical strength.
- Some have a mild form that may be undiagnosed until early adulthood.

Certify If:

- Treatment is adequate, effective, safe, and stable
- Nature/Severity not danger to driver health, public
- Annual exam by treating specialist

Cystic fibrosis is a progressive, debilitating disease that until just recently, few individuals lived into adulthood. It requires continuous antibiotic therapy and therapy to mobilize abnormal secretions. Cystic fibrosis may result in limited physical strength and there is a mild form that may remain undetected until early adulthood. Drivers with cystic fibrosis must be evaluated to determine the extent of the disease, their symptoms and their ability to maintain their treatment while driving a truck. There's no recommended waiting period for drivers with cystic fibrosis. However, the medical examiner should not certify a driver with cystic fibrosis until their treatment has been documented and is effective, safe and stable and the driver complies with continuing medical surveillance by a specialist.

Cystic Fibrosis

Do Not Certify if:

- Hypoxemia at rest
- Chronic respiratory failure
- History of continuing cough with syncope
- Does not meet pulmonary test guidelines
- Unstable condition and/or treatment regimen

Certification Interval: 2 years (or one year if more frequent screening is required)

Drivers with cystic fibrosis can be certified to drive once the nature and severity of their condition is determined and is not a danger to the driver's health or to public safety. Drivers with cystic fibrosis that should not be certified are those with hypoxemia at rest, chronic respiratory failure, have a history of continuing cough associated with cough syncope, those that do not meet the pulmonary test guidelines and those whose cystic fibrosis is unstable, or they are noncompliant with their treatment. Drivers with cystic fibrosis can be certified for up to two years. However, it is suggested that the medical examiner consider a lesser interval in cases where the treating provider is requiring evaluation and screening on a more frequent basis.

Interstitial Lung Disease

- Diseases grouped together due to common pathologic features
- Occupational and environmental exposure are common causes
- Slow progression is common
- Side effects of treatment with corticosteroids and cytotoxic agents

A Hx of breathlessness while driving, walking short distances, climbing stairs, handling cargo, or entering/exiting the cab should initiate a careful evaluation of pulmonary function.

Certify If:

- Treatment adequate/effective, safe, stable
- Nature/Severity not danger to driver health, public

Do Not Certify if:

- Hypoxemia at rest
- Chronic respiratory failure
- History of continuing cough with cough syncope

Certification Interval: 2 years

Drivers can be exposed to a wide variety of chemical agents, hazardous materials, and toxins during their driving career as the common cause of a group of interstitial lung diseases that have common pathological indications and physiological features. Once detected, these diseases tend to be progressive and are treated with corticosteroids and cytotoxic agents. With progression, drivers can develop breathlessness when driving, walking short distances, climbing stairs, loading or unloading cargo or even entering or exiting the cab. Should a driver exhibit or report these changes, the medical examiner should initiate a careful evaluation of pulmonary function. Drivers with interstitial lung disease have no waiting period. However, the medical examiner should not certify them until the etiology and treatment is found to be adequate, effective and stable.

Pneumothorax

- Air between the membranes (pleural space) that surround the lungs
- May occur spontaneously or secondary to trauma
 - When occurs spontaneously, the underlying disease is the determining factor for certification

Certify If:

- Confirmed resolution of spontaneous pneumothorax, or
- If traumatic pneumothorax, documented complete recovery and x-ray confirmation following a successful pleurodesis
- No disqualifying underlying lung disease
- Asymptomatic w/o chest pain or shortness of breath
- (X-ray: No air in pleural space or in mediastinum)

Do Not Certify if:

- Hx of *two or more* spontaneous pneumothoraxes *on one side* & no successful surgical intervention
- Hypoxemia at rest
- Chronic respiratory failure
- Hx of cough with cough syncope

Certification Interval: 2 years

If a driver has had a pneumothorax as a complication of an existing lung disease, the medical examiner should determine the driving certification status and interval according to the medical guidelines for that disease. However, if the driver has a spontaneous or traumatic pneumothorax, the medical examiner should adhere to the following medical guidelines. They may be certified if they are asymptomatic, without any chest pain or shortness of breath. They must have no underlying disqualifying lung disease. They must have confirmed resolution of a single spontaneous pneumothorax by x-ray showing that there is no air in the pleural space or mediastinum. If the driver has had parenthesis as a surgical treatment for a traumatic or spontaneous pneumothorax, they must meet the pulmonary parameters or medical guidelines. There is no recommended waiting period for a driver who's had a spontaneous or traumatic pneumothorax.

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Cor Pulmonale

- Enlargement of the right ventricle secondary to disorders affecting lung structure and function
- May cause dizziness, hypotension, syncope and effects from vasodilators
- Causes:
 - Hypoxic pulmonary vasoconstriction
 - Pulmonary Hypertension

Certify If:

- Treatment adequate/effective, safe, stable
- Nature/Severity not a danger to driver health, public

Do Not Certify if:

- Dyspnea at rest
- Dizziness
- Hypotension
- ABG shows partial pressure of arterial oxygen (PaO₂) < 65mmHg

Certification Interval: 2 years (1 year if more frequent monitoring is required)

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Cor Pulmonale is enlargement of the right ventricle, typically caused by pulmonary hypertension or hypoxic pulmonary vasoconstriction. The major risks to driving are dizziness, hypotension, syncope, and if medically treated, the effects from vasodilators. There is no recommended waiting period for drivers that have Cor Pulmonale. Drivers can be certified if the nature and severity of their condition is not a danger to the driver's health or public safety. However, the driver should not be certified until the diagnosis is confirmed and the treatment is adequate, effective, safe and stable. Drivers with dyspnea at rest, dizziness, hypotension, or if they do not meet the pulmonary testing guidelines, should not be certified. Drivers that meet these requirements can be certified for up to two years unless the treating provider is requiring more frequent monitoring.

Pulmonary Hypertension

- Pulmonary artery pressure usually much lower than systolic blood pressure. If the pressure in the pulmonary artery is greater than 25 mm Hg at rest or 30 mmHg during physical activity, it is abnormally high and is called pulmonary hypertension.
- Occurs w/ or w/o Cor Pulmonale.

Certify If:

- Tx adequate/effective safe and stable
- Nature/Severity not a danger to driver health/public

Do Not Certify if:

- Dyspnea at rest.
- Dizziness
- Hypotension
- ABG shows partial pressure of arterial oxygen (PaO₂) < 65mmHg

Certification Interval: 1 year

Pulmonary artery pressure is usually much lower than systolic blood pressure. If the pressure in the pulmonary artery is greater than 25 millimeters of mercury at rest or 30 mmHg during physical activity, it is abnormally high. This is called pulmonary hypertension. Pulmonary hypertension can occur with or without Cor Pulmonale. There is no mandatory waiting period, but before certifying a driver, the Medical Examiner should confirm that the driver's treatment is adequate, and the condition is safe and stable to drive a commercial vehicle safely. Medical Examiners should not certify a driver that has dyspnea at rest, dizziness, hypotension or PaO₂ less than 65 mmHg. The Medical Examiner can issue Certificate for up to one year.

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Pulmonary Surgeries

Pneumonectomy/Lung Resection:
Certify if: Meets guideline for underlying disease/surgery
Clearance from Specialist & Asymptomatic

Tracheostomy :
Certify if: surgical area healed

Primary/Secondary Carcinoma:
Waiting Period: Consider disqualification during treatment if driving risk or interferes with treatment.
Certify If: Clearance from Specialist

Transplant:
Waiting Period: 3-6mo
Certify If: Healed surgical site, clearance from specialist
Tolerates medications not a risk to driving

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Drivers who have had a pneumonectomy, or lung resection, can be certified to drive if they meet the medical guidance for the underlying disease. They are required to have clearance from a specialist and be asymptomatic. Drivers who had a tracheostomy can be certified to drive once the surgical site has healed. For drivers that have primary or secondary carcinoma, the medical examiner may wish to consider disqualification during treatment, either because of treatment side effects or because the driver's work schedule interferes with treatment. Drivers who have had a lung transplant have a mandatory waiting period between three and six months. They can be certified to drive once the surgical site has healed. They must have clearance from a specialist and be tolerant of their medications. The medications being taken should not be a risk to safe driving.

Respiratory Condition Treatment

Frequently treated with meds that have side effects such as drowsiness, increased heart rate/arrhythmia, elevated blood pressure.

Bronchodilators, anti-inflammatories, sympathomimetics, antibiotics, antihistamines and narcotic antitussives.

Use of Oxygen tank while driving is disqualifying.

Drivers using an oxygen generator may not meet the respiratory requirements.

Respiratory conditions are frequently treated with medications whose side effects are a risk to safe driving. Side effects include, but are not limited to drowsiness, tachycardia or arrhythmia, and high blood pressure. Medications include bronchodilators, anti-inflammatories, sympathomimetics, antibiotics, antihistamines and narcotic antitussives.

Drivers are sometimes advised to use an oxygen tank. This is disqualifying due to the hazardous effects should a fire develop. An oxygen generator would avoid the fire risk, but the medical examiner should question whether the driver meets the respiratory requirements of commercial driving.

Self Check

What is the next *best* step?



*Clubbing of the fingers associated with pulmonary and cardiac disease-
Order PFT or refer to pulmonologist*

If a medical examiner noticed the following abnormality during a medical exam for a commercial driver, what would be the next best step? This picture indicated clubbing of the fingers which is associated with pulmonary and cardiac diseases. The medical examiner should consider ordering a pulmonary function test or refer the driver to a pulmonologist.

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Self Check

Stem:

- In addition to a PFT, give examples of other signs and symptoms a ME uses to decide if pulmonary/respiratory disease may DQ a driver?

Key:

- Bronchiectasis with hemoptysis, episodes of life-threatening pulmonary infection, Chronic TB, COPD with cough syncope, Asthma that requires frequent hospitalizations or severe enough to put the driver at risk.

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This is an FMSCA self check slide. In addition to a pulmonary function test, give examples of other signs and symptoms a medical examiner uses to decide if a pulmonary or respiratory disease may disqualify a driver?

The answer is bronchiectasis with hemoptysis, episodes of life-threatening pulmonary infection, chronic tuberculosis, COPD when associated with cough syncope, uncontrolled asthma that requires frequent hospitalizations or is severe enough to put the driver at risk.



Self Check

Stem:

- What conditions must a driver with acute or chronic cor pulmonale meet to be certified to operate a CMV.

Key:

- ABG (PaO₂) > 65 mmHg, or drivers with acute reversible conditions may be certified after successful Tx and meet criteria.
- Drivers with pulmonary HTN or cor pulmonale who exhibit dyspnea at rest, dizziness, or hypotension should not be qualified.

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This is another FMSCA prepared self check slide. What conditions must a driver with acute or chronic Cor Pulmonale meet to be certified to operate a commercial motor vehicle?

The driver must have arterial blood O₂ partial pressure greater than 65mmHg. Or if the driver has an acute reversible condition, they can be certified after being successfully treated, provided they meet the pulmonary recommendation guidelines. Drivers with pulmonary hypertension or Cor Pulmonale who exhibit dyspnea at rest, dizziness or hypotension should not be qualified to drive.

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Self Check

Stem:

- A driver with exercise-induced asthma is controlled with an inhaler (albuterol, proventil, ventolin) before any aerobic activity. What must their FEV1 be greater than in % of predicted FEV1 to qualify?

Key:

- 65%

Stem:

- A driver is taking Benadryl 25 mg, 2 to 3 times per day to treat nasal congestion. Discuss concerns, if any, the ME may have.

Key:

- The driver should abstain from antihistamines, with known sedative side effects and narcotic-based antitussives, for 12 hours prior to driving.
- The ME should counsel driver concerning side effects of meds and need to consult with PCP about chronic congestion.

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A driver with exercise-induced asthma is controlled with an inhaler (Albuterol, Proventil or Ventolin) before any aerobic activity. What must their FEV1 be greater than in percentage of predicted FEV1 to qualify? The drivers FEV1 must be greater than or equal to 65% of their predicted FEV1.

A driver is taking Benadryl 25mg, 2 to 3 times per day to treat nasal congestion. Discuss any concerns the medical examiner may have? The driver should abstain from antihistamines with known sedative side effects and narcotic-based antitussives for 12 hours prior to driving. The medical examiner should counsel the driver concerning the side effects of medications and the need for the driver to consult with their PCP regarding chronic nasal congestion.

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Self Check

Stem:

- On history the ME notices the driver has asthma and the driver lists an albuterol inhaler among his meds. On questioning, admits he uses it several times per day (especially during spring and summer), that he has not seen his PCP in a few years, and that he has been hospitalized twice in the last 6 months for his asthma, ending up on a ventilator on the last hospitalization. Should this driver be certified and for how long?

Key:

- Disqualify. Asthma not well controlled and may interfere with safe operation of a CMV. Advise driver to see PCP and possibly pulmonologist who may be able to provide Tx to effectively control asthma.

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Additional FMCSA prepared pulmonary questions. On the medical history, the medical examiner notices the driver has asthma and lists an albuterol inhaler among his medications. On questioning, the driver admits he uses it several times per day, especially during the spring and summer. The driver reports he has not seen his PCP in a few years. He has been hospitalized twice in the last six months due to his asthma, ending up on a ventilator on the last hospitalization. Should the medical examiner certify this driver to drive, and for how long?

This driver should be disqualified from driving due to the driver's asthma condition not being well controlled and may interfere with safe operation of a commercial motor vehicle. The medical examiner should refer the driver to his PCP and possibly a pulmonologist who may be able to provide effective treatment. Once treated effectively, the driver could be certified to drive.

Self Check

Stem:

- A driver reports for examination with a history of pneumothorax last month. The records provided by the driver indicate that the episode reduced the driver's FVC to 58%. Can this driver be certified? If not, when can the driver be certified?

Key:

- Disqualify. The driver may not be certified until the ME has verified that the driver's recovery is complete, with X-rays, and the FVC is > 60%.

Stem:

- The driver presents for examination 3 months post spontaneous pneumothorax. His FEV is 68%. The records provided indicate that this is the second spontaneous pneumothorax on the same side. There was no surgical intervention. Can this driver be certified? If not, when can they become certified?

Key:

- Disqualify. The driver should not be considered if no surgical procedure has been done to prevent recurrence.

This is the last of the FMSCA prepared pulmonary questions. A driver reports for examination with a history of pneumothorax last month. Records provided by the driver indicate that the episode reduced the driver's FVC to 58%. Can this driver be certified? If not, when could the driver be certified? This driver is disqualified from driving. The driver may not be certified until the driver's recovery is complete, indicated by x-rays, and their FVC is greater than or equal to 60%.

The driver presents for examination three months post spontaneous pneumothorax. Their FEV is 68%. The records indicate that this is the driver's second spontaneous pneumothorax on the same side. There was no surgical intervention. Can this driver be certified? If not, when can they become certified? This driver should be disqualified from driving. The driver should not be considered to drive until the driver has had the surgical procedure to prevent reoccurrence.

Genitourinary Gastrointestinal

Disorders 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.

MEs should not certify the driver until the etiology is confirmed, and treatment has been shown to be adequate/effective safe and stable

Specific Diseases:

- **Nephropathy**
- **Hernia**
- **Kidney transplant**
- **Dialysis**

Genitourinary and gastrointestinal disorders have not been shown to significantly impact the ability to drive safely. However, some GI and GU conditions can interfere with the safe driving and have a significant effect on the health of the driver. For those conditions medical examiners should perform a case-by-case evaluation to determine if a driver can drive safely. Drivers that have GU or GI conditions should not be certified to drive until the etiology is confirmed and treatment has been shown to be effective adequate safe and stable. Our discussion will include specific diseases that may be a concern such as; nephropathy, hernia, kidney transplant, and kidney failure involving dialysis treatment.

Genitourinary Gastrointestinal

History:

- Any illness or injury in past 5 years
- Kidney disease, dialysis
- Liver Disease
- Digestive problems

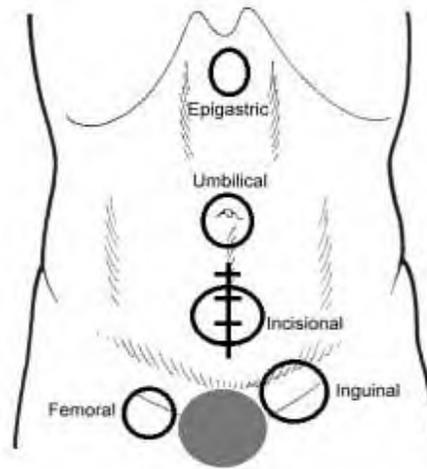
Examination:

- Abnormal urinalysis
- Enlarged Liver
- Enlarged Spleen
- Masses
- Bruits
- Hernia
- Significant abdominal wall muscle weakness

There are specific questions regarding genitourinary and gastrointestinal disease that appear in the driver health history section of the medical examination report form. These questions regard kidney disease, dialysis, liver disease, and digestive problems. These diseases would also fall into the category of “any illness or injury” in the examination portion on the third page of the medical exam report form. Medical examiners should look for an enlarged liver, spleen, any present masses, bruits, hernia, significant abdominal wall muscle weakness as well as abnormal urinalysis results.

ABDOMINAL/GU EXAM

- Auscultate abnormal bowel sounds or pulsations associated with an aortic aneurysm (Bruit).
- Palpate for tenderness or enlargement of the liver, kidney or spleen, abnormal pulsations.
- Note any hernia present.



Medical examiners should auscultate the abdominal area for abnormal bowels sounds or pulsations associated with an aortic aneurysm such as a bruit. Medical examiners should palpate for tenderness or enlargement of the liver, kidney and spleen or abnormal pulsations that could also be related to an abdominal aortic aneurysm. The ME should check for a hernia that is in the abdominal wall, femoral or inguinal area and note any abnormal findings.

Hernia

The exam form includes a section for checking a hernia for the abdomen and viscera body, and the genitourinary system.

If a hernia causes discomfort, or the Dx suggests that the condition might interfere with the control and safe operation of a CMV, further testing and evaluation may be required.

Waiting Period: No recommended time frame

Certify If: Nature/Severity not a danger to driver or public health/safety

Do Not Certify If: If a recommendation for repair has been made, pain is present, a risk of strangulation or danger to driver or public health/safety

Certification Interval: 2 years

If a hernia causes pain or discomfort, or if the condition suggests it might interfere with the safe driving, the medical examiner should consider further testing and evaluation prior to certifying the driver. There is no recommended waiting period and drivers can be certified as long as the nature or severity of the condition is not a danger to driving. Do not certify the driver if they have a condition that is a danger to driving or if a hernia repair has been recommended but not performed.

Nephropathy

Strongly related to the duration of diabetes mellitus. Drivers with a history of 15 years with diabetes treated with insulin show increased frequency of developing nephropathy.

First Stage is persistent proteinuria

End-Stage renal disease follows some time later

Decision for certification based on degree of progression and impact on driver ability to function.

Drivers with a high risk of developing nephropathy are those who have had diabetes for 15 years and are taking insulin. The first indication and stage of nephropathy is a persistent proteinuria. Nephropathy typically is slowly progressive. The decision for certification of a driver with nephropathy is based upon the degree of severity, progression and the impact on the driver's ability to function.

Nephropathy

Waiting Period: No Recommended time frame

Certify if:

- Tx plan manages nephropathy and does not interfere with safe driving

Do Not Certify if:

- Tx not well managed

Certification Interval: 2 years

A UA indicating proteinuria may indicate some degree of renal dysfunction. ME may on case-by-case basis obtain additional testing

Drivers with nephropathy have no recommended waiting period and can be certified to drive if they have a treatment plan which manages their condition and does not interfere with safe driving. Drivers who have nephropathy that is not well-controlled should not be certified to drive. Drivers who have nephropathy can be certified for up to two years. A urinalysis indicating proteinuria may indicate some degree of renal dysfunction. Medical examiners on a case-by-case basis may obtain additional testing.

Kidney Disease- Dialysis

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

End Stage Renal Failure is usually disqualifying

Certify If:

- Driving schedule does not interfere with treatment schedule- long haul may be problematic
- Medical Clearance from a medical specialist depending on severity

Certification Interval:

Stage 1 or 2 does not require clearance, can cert for 2 years

Stage 3 no clearance required, cert for 1 year.

Stage 4 clearance required from nephrologist certify for 1 year

Stage 5 disqualify (MRB Recommendation not yet accepted)

For kidney dialysis, MEs should consider the severity and stability of renal impairment, and the ability for the driver to maintain their treatment schedule. MEs should consider the presence and status of any co-morbidities. A driver can be certified if the driver's driving schedule does not interfere with their recommend treatment schedule. Long haul driving may be problematic.

The certification requirements vary according to severity. Because kidney disease is generally slowly progressive, drivers with stage 1 or 2 can be certified to drive without treating provider clearance for up to 2 years. Those in Stage 3 do not require clearance, however they should only be certified for 1 year. Drivers in Stage 4 must have clearance from the treating provider and can certified for only one year. The FMCSA Medical Review Board recommended that drivers in Stage 5 be disqualified from driving, but that recommendation has not been formally adopted by FMCSA.

Kidney Transplants

Will usually return to normal lifestyle

Waiting Period: No defined WP (3mth or when returned to full, regular duty with no limitations)

Certify if:

- Clearance from a medical specialist
- Tolerates medications/treatment

Certification Interval: 2 years

Drivers who have had a kidney transplant usually return to a normal lifestyle. There is no predefined waiting period. However, many waiting periods when surgery is involved require three-months with no driving. MEs may consider the date the driver is released to full work duty with no restrictions as the date the driver can be certified to drive. Drivers can be certified if they have clearance from their medical specialist and they tolerate their medications and are compliant with their treatment plan. Drivers who have had a kidney transplant can be certified for up to two years.

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Self Check

Stem:

- How does a ME determine if a GI condition would potentially DQ the driver?

Key:

- If the condition might produce symptoms that would potentially impair safe operation of a CMV.

Stem:

- What are the 4 required tests of a UA?

Key

- Specific Gravity, Protein, Glucose, Blood
- Glucose may indicate the driver has undiagnosed or poorly controlled diabetes mellitus.

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This is an FMCSA self check slide. How does a medical examiner determine if a GI condition would potentially disqualify the driver? The answer is by determining if the condition may produce symptoms that would potentially impair safe operation of a commercial motor vehicle.

What are the 4 required tests of a urinalysis? They are; Specific gravity, protein, glucose and blood. Glucose in the urine may indicate the driver has undiagnosed or poorly controlled diabetes.

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Self Check

Stem:

- What would the ME do next if a significant abnormal finding for UA SG, protein and blood is found on examination of the driver?

Key:

- Use clinical expertise to determine if additional evaluation is required and request or recommend PCP follow-up.

Stem:

- The driver is taking Bentyl, 20 mg, QID for IBS with good control of symptoms. Is the driver qualified or DQ?

Key:

- They are qualified if the med controls the symptoms. There are no side effects of concern for this med.

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Continuing Medical Education for Commercial Drivers

What would the medical examiner do next if significant abnormal findings were found in the urinalysis? The answer is for the ME to use their clinical expertise to determine if an additional evaluation is required with the driver's PCP.

The driver is taking Bentyl 20 mg, four times a day for irritable bowel syndrome with good control of symptoms. Is the driver qualified or disqualified from commercial driving? The driver can be qualified to drive if the medication controls the symptoms. There are no side effects of concern for this medication.

Self Check

Stem:

- Discuss the decision by a ME to shorten a recertification interval or to DQ the driver with a history of kidney disease and/or kidney transplant.

Key:

- Discussion points need to include (individualize each decision):
 - Severity
 - Stability
 - Medication and medication side effects/adverse reactions
 - Driver functional status and abilities
 - Written input from specialists.

Discuss the decision by a medical examiner to shorten a recertification interval or to disqualify the driver with a history of kidney disease and or a kidney transplant. The answer is that discussion points need to include; severity, stability, medication side effects or adverse reactions, the driver's functional ability and status, and input from a specialists.

Other Diseases

Other diseases or disorders not listed or covered in training modules can also interfere with safe driving of a CMV.

Hematologic disorders:

- bleeding disorders, anemia, cancer, organ transplant

GI disorders:

- pancreatitis, ulcers, ulcerative colitis, cirrhosis, hepatitis, IBS, hernias

Genitourinary:

- polycystic, nephrotic syndrome, kidney stones

Neoplastic:

- leukemia, brain, bone, breast cancer

Other diseases may have symptoms that interfere with safe driving but are not listed or covered in the FMCSA medical examiner training. These diseases include bleeding disorders, anemia, cancer, organ transplant, pancreatitis, cirrhosis, hepatitis, irritable bowel syndrome, polycystic disease, kidney stones, leukemia, brain, bone and breast cancer.

Other Diseases

Guideline:

For documented conditions consider the rate of progression, degree of control, likelihood of incapacitation

Certification:

Disqualify a driver when evidence shows a condition exists that will likely interfere with the safe operation of a CMV, which may include sufficient supporting opinions and information from specialist.

Diagnostic Tests:

Obtain additional information when indicated by:

- Blood analysis (electrolytes, toxicology, blood chemistries)
- drug-level monitoring **Digoxin, Theophylline (Theo-Dur)**

When confronted with a driver with one of these “other” diseases for which there is no FMCSA guidance, what should a medical examiner do in order to make the correct driving status decision? Medical examiners should consider the rate of progression, the degree of control, severity, and risk of sudden or gradual incapacitation. Medical examiners and should disqualify drivers when evidence shows a condition exists that will likely interfere with the safe operation of a commercial motor vehicle, especially when there is sufficient supporting opinions and information from a specialist.

Medical examiners should be aware of when to obtain additional information or diagnostic testing. An example would be obtaining serum medication levels for medications that require monitoring such as Digoxin, Theophylline, Theo-Dur. Or knowing the required blood analysis needed for specific diseases. MEs can also look to follow “best practice” guidelines.

Other Diseases Without Specific Guidelines

Additional tests and/or evaluations should be obtained when exam findings are inconclusive for determining medical fitness for duty

A driver with a disease that does not interfere with driving and/or the ability to perform non-driving tasks can be certified.

A good clinical prognosis does not always ensure the safety of the driver and the public

Medical examiners should remember that additional testing or evaluations should be obtained whenever exam findings are inconclusive for determining whether the driver is fit for duty or safe to drive. Remember, a good clinical prognosis does not always ensure the safety of the driver or the public. A driver that has a disease that does not interfere with driving and/or the ability to perform non-driving duties can be certified to drive a commercial motor vehicle.

Musculoskeletal 49 CFR 391.41 (b)(1,2,7)

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

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

Has no impairment of:

- (1) 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 certification pursuant to 391.49**

49 CFR 391.41 (b) 1,2, &7 is the musculoskeletal standard for commercial driving. Because it's a standard, it must be followed, but it is a discretionary standard. A driver can be qualified to drive a commercial motor vehicle if they have no **loss** of a foot , leg, hand or arm or if they have been granted a skill performance evaluation pursuant to 391.49. A driver can be qualified to drive a commercial motor vehicle if they have **no impairment** of an arm, foot or leg that interferes with the ability to perform for normal tasks associated with operating a commercial motor vehicle or **any other significant limb defect or limitation** which would infer with their ability to perform the normal tasks associated with commercial driving, **or** if the driver has been granted a skill performance evaluation.

Musculoskeletal 49 CFR 391.41 (b)(1,2,7)

Continued:

Has no impairment of:

(2) Has not established medical history or clinical diagnosis or rheumatic, arthritic, orthopedic, muscular, neuromuscular, or vascular disease which interferes with his/her ability to control and operate a commercial motor vehicle safely

A driver can be certified to drive a commercial motor vehicle if they have no established medical history or diagnosis of a rheumatic, arthritic, orthopedic, muscular or vascular disease which interferes with their ability to control and operate a commercial motor vehicle safely.

Musculoskeletal Disease

If rheumatic, arthritic, muscular, neuromuscular or vascular disease is present, consider:

- Nature and severity
- Degree of limitation
- Likelihood of progression or sudden incapacitation.
- Medications

If functional impairment exists that might interfere with safe CMV operation:

- **Decision should not be made until etiology is confirmed and Tx is adequate/effective and safe**

If a driver has a history of musculoskeletal disease, the medical examiner is to determine if a functional impairment exists that would interfere with the safe operation of a commercial motor vehicle. Those conditions may be rheumatic, arthritic, muscular, neuromuscular or vascular. Medical examiners should consider the nature and severity of the condition, the degree of functional limitations, the likelihood of progression or a sudden incapacitation, and the effect or side effects of medications used to treat the condition. The medical examiner should not certify the driver until the etiology is confirmed and treatment is adequate, safe and stable.

Musculoskeletal Driving Requirements

Driver Duties: may include loading and unloading, making multiple stops, driving cross-country, in heavy city traffic, and changing tires

- Grip oversized steering wheel
- Shifting gears, maintain pressure on pedals
- Braking
- Monitoring traffic
- Perform pre- and post-trip safety checks
- Ensuring proper loading
- Securing the load
- Evaluating and managing vehicle breakdowns
- Responding to emergency situations

To determine if a functional impairment exists that would interfere with safe driving, MEs need to consider the duties and ability to perform the tasks associated with being a commercial driver. These tasks include loading and unloading their own truck, making multiple stops, sitting for long periods of time while driving across country, dealing with increased stress of being in heavy city traffic, being able to change heavy tires, be able to adequately grip an over size steering wheel, shift a transmission through as many as 20 gears, maintain pressure on the gas, break, and clutch pedals, be able to brake affectively, monitor traffic, perform pre and post trip safety checks that include bending down to inspect brakes, brake lines and tires, the ability to ensure proper loading or reloading of cargo to make the load more safe and secure, lifting, throwing and tying down heavy tarping, evaluating and managing breakdowns, and be able to respond to emergency situations.

Musculoskeletal History

Role of ME is to determine driver strength, flexibility, dexterity and balance, to maintain control and perform non-driving tasks.

History:

- Muscular disease
- Missing hand, arm, foot, leg, finger, toe?
- Nonfunctional hand, arm, foot, leg, finger, or toe
- Injury or spinal disease
- Chronic low back pain

Additional Questions:

- Physical limitations caused by weakness, pain, decreased ROM
- Use any Musculoskeletal agents
- Do they have Mild, Moderate, or Severe chronic musculoskeletal pain

For drivers who have a Musculoskeletal disorder, the role of the medical examiner is to determine driver strength, flexibility, dexterity, and balance to maintain control, and perform non-driving tasks. The driver history section on page one of the medical examination report form lists questions relating to musculoskeletal abilities such as asking the driver if they have a history of a muscular disease, whether they are missing a hand, arm, foot, leg, finger, or toe or have a non-functional hand, arm, foot, leg, finger or toe. Other questions are related to whether there is a history of spinal disease or chronic low back pain. For those that answer “yes” to any of these questions, the medical examiner may ask additional questions such as are there any physical limitations caused by weakness, pain, or decreased range of motion, is the driver using any musculoskeletal medications or agents, and does the driver have mild, moderate, or severe chronic musculoskeletal pain.

Musculoskeletal

Refer a driver with limitations in extremity movement for an on-road performance evaluation or a Skill Performance Evaluation.

Examination:

- **Spinal:**
 - Surgical scars and deformities
 - Tenderness and muscle spasm
 - Loss in range of motion/painful motion
 - Kyphosis, scoliosis, other spinal deformities
- **Extremities;**
 - Gait, mobility, posture (weight bearing), limping or signs of pain

When evaluating a driver with a musculoskeletal condition, medical examiners should refer a driver that has limitations in extremity movement for an on-road performance evaluation or a skill performance evaluation. The examination includes a review of both the spinal and extremity areas. Medical examiners should look for surgical scars and deformity's, tenderness and muscle spasm, decrease in range of motion or painful motion, kyphosis, scoliosis, and other spinal or extremity deformity. Medical examiners should consider gate, mobility, weight-bearing posture and any signs of limping or pain.

Musculoskeletal

Examination:

- Extremities:
 - Missing or impaired leg, foot, toe, arm, hand, or finger
 - Loss, impairment, use of orthotics
 - Deformity, atrophy, weakness, paralysis, surgical scars
 - Elbow & shoulder strength, function, mobility
 - Handgrip/grip strength, prehension for controlling steering wheel and shifting
 - Varicosities, skin abnormalities, cyanosis, clubbing, edema
 - Leg length discrepancy, lower extremity strength, motion, and function

Medical examiners should look for a missing or impaired leg, foot, toe, arm, hand or finger, or the use of an orthotic. MEs should look for deformities, atrophy, muscle weakness, paralysis and surgical scars. They should evaluate elbow and shoulder strength, functional ability, and mobility. The ME should evaluate hand and grip strength, prehension for control in the steering wheel and shifting, varicosities, skin abnormalities, signs of cyanosis, clubbing, edema, leg length discrepancy and lower extremity strength, motion and function.

 **Musculoskeletal Exam**

Exam:

- ROM cervical spine rotation
 - No Recognized Standard! Only required to view mirrors
- Ability to squat
- Lifting: No specific weight or lifting frequency requirement
 - 50-75lb is a general range used for other occupation evaluations
- DTR' s
- Balance and coordination
- Speech pattern
- Cranial Nerves
- Babinski (positive result may trigger an evaluation)

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The two most common misconceptions regarding the FMCSA guidelines for drivers with musculoskeletal disease is the ability to turn the neck and the ability to lift. There is no required range of cervical motion. The requirement is for the driver to be able to twist their spine or body enough to view both the left and right rearview mirrors. Although a 50-75 pound lifting ability is a generally accepted lifting range used for some occupational requirements, there is no specific lifting weight requirement, nor is there a repetitive lifting frequency requirement for commercial drivers. Drivers should have the ability to squat and have normal deep tendon reflexes. Medical examiners should check for balance, coordination, and evaluate speech pattern and the cranial nerves. Medical examiners are required to perform a Babinski reflex and know what the possible deficits that may be involved with a positive result. A positive Babinski test may trigger a neurological evaluation of the driver.

Musculoskeletal Tests

The driver must have sufficient **grasp and prehension** to control an oversize steering wheel, shift gears using a manual transmission and maneuver a vehicle in crowded areas.

Prehension: the ability to achieve sufficient “friction” on an object.

Grasp Power: extremity strength, No specific test is required to assess grip power.

However, MEs could use the following examples:

- Dynamometer designed to measure grip strength
- Sphygmomanometer used as a screening test by having driver repeatedly squeeze the inflated cuff while noting maximum deflection of gauge

Drivers must have sufficient grasp power and prehension in order to control an oversize steering wheel, shift gears using a manual transmission and maneuver a vehicle in crowded areas that is especially difficult at low speeds. The concept of grip strength or grasp power is commonly understood, however prehension is not a term that many medical examiners understand. The following example shows the difference between grasp power and prehension. Consider a driver who can only close his hand halfway to a full fist. They may have powerful grip strength, but once he gets his fingers into a half-closed position, he can no longer apply that force to an object that fits loosely in his hand. Prehension is a combination of grasp strength with sufficient frictional contact to hold on to an item, such as the diameter of a steering wheel. The requirement is to have sufficient grasp strength *and* prehension and there is no specific test to assess this ability. Use of a dynamometer could be helpful. Another suggestion is to use a blood pressure cuff and have the driver squeeze the cuff and look for the deflection on the gage. However, there are no FMCSA guidelines for either dynamometer or using a blood pressure cuff. Regardless of your method of choice, you be able to detect if one arm is much weaker than another, which could be an indication that the driver has difficulty with grasp power or prehension.

Musculoskeletal Disorders

The following disorders are rarely disqualifying:

- Contusions and other soft tissue injuries
- Entrapment syndromes
- Sprains and Strains
- Tendonitis and Bursitis
- Rheumatic Disease
- Back and Neck problems
- Congenital Problems

The following musculoskeletal diseases are rarely disqualifying. If disqualifying, it is usually for a short period of time. This group consists of contusions and other soft tissue injuries such as sprain, strains, tendinitis, bursitis, entrapment syndromes, rheumatic disease, back and neck injuries and other congenital problems.

Musculoskeletal Tests

When requesting evaluation by a specialist, it is helpful to include a description of the role of the driver and medical standards/guidelines

Record additional test results on the Medical Exam Report form page 2: “Other Testing if indicated” and attached additional test results.



TESTING		
Pulse rate: _____ Pulse rhythm regular: <input type="radio"/> Yes <input type="radio"/> No		
Blood Pressure	Systolic	Diastolic
Sitting		
Second reading (optional)		
Other testing if indicated		
<div style="border: 1px solid black; height: 20px;"></div>		

When requesting a musculoskeletal evaluation from a physiatrist, orthopedist, or occupational health specialist, it is helpful if the ME will include a description of the duties of a commercial driver, and a copy of the musculoskeletal standard and medical guidelines. The ME should report test results on Page 2 of the exam form in the “Other testing if indicated” area that appears under the blood pressure reading. If additional room is needed, the ME can attach test results to the exam form.

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Skill Performance Evaluation 49 CFR 391.49

A person who is not physically qualified to driver under 391.41 (b) (1,2) and who is otherwise qualified to drive a commercial motor vehicle may drive a commercial motor vehicle if the Division Administrator, FMCSA, has granted a Skill Performance Evaluation (SPE) to that person

(d) The letter of application for an SPE certificate shall be accompanied by:

- **A copy of the medical examination form**
- **A copy of the medical examiner's certificate**
- **A medical evaluation summary completed by either a board qualified or board-certified physiatrist or orthopedic surgeon.**

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The Skill Performance Evaluation as contained in 49 CFR 391.49 is considered an alternative to the musculoskeletal standard. It allows a person who is not physically qualified, but who is otherwise medically qualified, to drive a commercial motor vehicle. To obtain a SPE, the driver submits an SPE application to the FMCSA or their State Driver's Licensing Agency. The Federal application must be accompanied by the following: A copy of the medical examination report form. A copy of the medical examiner's certificate indicating a SPE is required and a medical evaluation summary completed by either a board qualified or board-certified physiatrist or orthopedic surgeon.

Once the application has been received by FMCSA , obtaining a SPE is a relatively quick process, often taking less than a month.

Skill Performance Evaluation 49 CFR 391.49

The SPE is applicable only for fixed deficits of the extremities.

Drivers must carry their SPE as well as a medical examiner's certificate when driving

The ME completes the medical exam and determines if the driver is otherwise qualified to drive.

Assess the unaffected extremities in the same manner as for any other driver.

Medical examiners determine whether the driver can and/or should apply for a skilled performance evaluation. Skilled performance evaluations are only applicable to fixed deficits of the extremities. Drivers must carry their SPE with them when they are driving. The ME is to assess the unaffected extremities in the same manner as used for any other driver. The ME completes the medical exam and determines if the driver is otherwise qualified to drive.

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Skill Performance Evaluation 49 CFR 391.49

Mark the "Skill Performance Evaluation (SPE) Certificate box on Page 4 or 5 and on the medical examiner's certificate

MEDICAL EXAMINER DETERMINATION (Federal)
Use this section for examinations performed in accordance with the Federal Motor Carrier Safety Regulations (49 CFR 391.41-391.49):

Does not meet standards (specify reason): _____

Meets standards in 49 CFR 391.41; qualifies for 2-year certificate

Meets standards, but periodic monitoring required (specify reason): _____

Driver qualified for: 3 months 6 months 1 year other (specify): _____

Wearing corrective lenses Wearing hearing aid Accompanied by a waiver/exemption (specify type): _____

Accompanied by a Skill Performance Evaluation (SPE) Certificate Qualified by operation of 49 CFR 391.64 (Federal)

Driving within an exempt intracity zone (see 49 CFR 391.63) (Federal)

Determination pending (specify reason): _____

Return to medical exam office for follow-up on (must be 45 days or less): _____

Medical Examination Report amended (specify reason): _____

(if amended) Medical Examiner's Signature: _____ Date: _____

Incomplete examination (specify reason): _____

Form MCSA-5876

Public Burden Statement
A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for, this collection of information if it displays a current valid OMB Control Number. The OMB Control Number for this information collection is: _____ including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information, and other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Office

U.S. Department of Transportation
 Federal Motor Carrier
 Safety Administration

Medical Examiner's Certificate
(for Commercial Driver Medical Certificate)

I certify that I have examined Last Name: _____ First Name: _____

the Federal Motor Carrier Safety Regulations (49 CFR 391.41-391.49) and, with knowledge of the driving duties

the Federal Motor Carrier Safety Regulations (49 CFR 391.41-391.49) with any applicable State variances (with

I find this person is qualified, and, if applicable, only when (check all that apply):

Wearing corrective lenses Accompanied by a _____ waiver/exemption

Wearing hearing aid Accompanied by a Skill Performance Evaluation (SPE) Certificate

Have the driver contact FMCSA at the FMCSA Service Center for the geographic area where the driver has legal residence. See link below.
<http://www.fmcsa.dot.gov/about/contact/offices/displayfieldroster.aspx>

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If a driver wishes to apply for a skill performance evaluation the medical examiner completes the medical examination report and issues a medical examiner certificate. The ME checks the "Accompanied by a Skill Performance Evaluation Certificate" box on the medical exam form and medical examiner's certificate. If medically qualified, the ME can issue up to a 2-year medical certificate. The medical examiner tells the driver that they should contact one of the FMCSA service centers for assistance. Most States have their own SPE programs for intrastate drivers.

Fixed Deficit of an Extremity

ME is to determine if the severity of a fixed deficit that is less than the whole hand is medically disqualifying (unless the driver has an SPE as part of a limb impairment)

Waiting Period: No recommended time frame

Certify If (accompanied by an SPE):

- A Fixed deficit of an extremity and otherwise medically qualified to drive
- A valid SPE certificate and documentation of compliance of SPE

If a driver has a loss that is less than the loss of all fingers or a fixed impairment that is considered to be functional loss in the whole hand, the medical examiner determines if the severity is medically disqualifying and therefore a SPE is needed. The only exception to this would be if the deficit is included in a SPE certificate that the driver has already obtained. Drivers that have a fixed deficit of an extremity have no waiting period but are not allowed to drive until they have received their SPE certificate. MEs can certify a driver who has a fixed deficit of an extremity, who are otherwise medically qualified to drive, and who have a SPE certificate and documentation of compliance of the terms of the SPE.

Fixed Deficit of an Extremity

Do Not Certify If:

- Impairment affecting torso
- Not provided proof of compliance with SPE
- A disqualifying limb impairment cause by a progressive disease

Certification Interval: 2 years

Note: A driver with an SPE should be qualified for less than 2 years if a medical condition requires certification for a shorter interval.

Drivers who have impairment affecting the torso cannot be certified. Drivers must have proof of compliance with the terms of the SPE. Drivers with a disqualifying limb impairment caused by a progressive disease cannot be certified. Drivers with a fixed impairment of an extremity can be certified for up to two years. The SPE certificate is also good for up to two years. However, a driver with an SPE and a medical condition that requires a shorter certification period should be issued a medical certificate for the appropriate length of time for that condition.

Neuromuscular Disease §391.41(b)(7)

A person is physically qualified to drive a commercial motor vehicle if that person: Has no established medical history or clinical diagnosis of rheumatic, arthritic, orthopedic, muscular, neuromuscular or vascular disease which interferes with the ability to control and operate a commercial motor vehicle safely.

Often insidious and slowly progressive. May require evaluation by neurologist, physiatrist or orthopedic surgeon.

Autonomic Neuropathy
Abnormal Muscle Activity
Congenital Myopathies
Metabolic Muscle Diseases
Motor Neuron Diseases
Muscular Dystrophies
Neuromuscular Junction disorders
Peripheral Neuropathies

Medical examiners may wish to get an evaluation by a physiatrist, orthopedic surgeon or neurologist for drivers that have a neuromuscular disease. Many neuromuscular diseases are insidious and slow progressing. We will be discussing Autonomic Neuropathy, Abnormal Muscle Activity, Congenital Myopathies, Metabolic Muscle Diseases, Motor Neuron Diseases, Muscular Dystrophies, Neuromuscular Junction disorders, and Peripheral Neuropathies.

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Autonomic Neuropathy

Affects nerves that regulate the functions of vital organs including the heart and circulatory system.

Waiting Period: No recommended time frame

Certify if:

- Etiology is confirmed
- Tx adequate, effective, safe and stable
- Nature/Severity not a danger to driver and public

Do not Certify if:

- Organ autonomic neuropathy that interferes with driving
- Cardiovascular autonomic neuropathy with:
 - Resting tachycardia
 - Orthostatic blood pressure

Certification Interval: 2 years

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Autonomic Neuropathies affect the nerves which regulate the functions of our vital organs. There is no recommended timeframe for a waiting period. Drivers with an automatic neuropathy can be certified to drive if; the nature and severity of the medical condition is not a danger to the driver or to public safety, the etiology has been confirmed, and the treatment is adequate, effective safe and stable. Do not certify drivers who have; organ autonomic neuropathy that interferes with safe driving, cardiovascular autonomic neuropathy accompanied by resting tachycardia or orthostatic blood pressure. Drivers that meet requirements can be certified for up to two years.

Conditions with Abnormal Muscle Activity

Abnormalities within the nerve causing abnormal muscle excitability.

Do not certify until etiology is confirmed and treatment is adequate, effective, safe and stable.

Certify if: Nature/Severity not a danger to driver and public

Do not Certify if Diagnosis of:

- Myotonia
- Isaac's Syndrome
- Stiff-man Syndrome

Certification Interval: 2 years

Abnormal muscle excitability can be caused by a nerve abnormality. Medical examiners should not certify the driver until the etiology is confirmed and treatment is adequate, effective, safe and stable. Certify the driver if their condition is not a danger to themselves or to public safety. Do not certify drivers if they have a diagnosis of myotonia, Isaac's syndrome, or stiff-man syndrome. Otherwise, these drivers can be certified for up to two years. There is no recommended waiting period.

Congenital Myopathies

Well-defined structural alterations of the muscle fiber, progressive or non-progressive:

Central Core Disease

Centronuclear myopathy

Congenital Muscular dystrophy

Rod (nemaline) Myopathy

Disqualified unless evaluation by a neurologist or physiatrist determines that driver can perform functions of operating a CMV and is not a danger to themselves or the public.

- Annual recertification and repeat evaluation
- Repeat driving test when indicated

Congenital Myopathies are well-defined structural alterations. Drivers that have a diagnosis of an uncorrected congenital myopathy disorder generally cannot be certified. To certify, driver must have an evaluation by a neurologist or physiatrist. There is no waiting period and no certification interval for these drivers. For those who are certified, an annual recertification that repeats this evaluation along a driving test are indicated.

Metabolic Muscle Diseases

Disorders that affect muscle energy metabolism and/or chemical imbalances. Can be episodic or slow progressing.

Waiting Period: No recommended time frame

Certify if:

- Evaluation by neurologist or physiatrist
- Tx adequate, effective, safe and stable
- Nature/Severity not a danger to driver and public

Annual recertification that repeats specialist evaluation and driving test if indicated.

Metabolic muscle diseases affect the muscles metabolism of energy and cause chemical imbalances. They can be insidiously progressive or episodic in nature. There is no applicable waiting period and there is no recommended certification interval. The certification decision must include an evaluation by a neurologist or physiatrist. Annual recertification that repeats the evaluation and driving test are required when drivers have a diagnosis of metabolic muscle disease. Generally these drivers are not certified to drive.

Motor Neuron Disease

Debilitating, progressive conditions that interfere with driving.
Disorders include:

- Hereditary spinal muscular atrophy
- Amyotrophic Lateral Sclerosis (ALS)
- Progressive Bulbar Palsy
- Pseudobulbar Palsy

Generally Disqualifying Conditions

Waiting Period: No recommended time frame

Certify if:

- Evaluation by neurologist or physiatrist
- Tx adequate, effective, safe and stable
- Nature/Severity not a danger to driver and public

Annual recertification that repeats evaluation and driving test when indicated

Motor neuron diseases are debilitating, insidiously progressive, and interfere with safe driving. These disorders include hereditary spinal muscular atrophy, amyotrophic lateral sclerosis, progressive bulbar palsy and pseudobulbar palsy. There is no recommended waiting period, nor is there certification requirements. Drivers that have a diagnosis of a motor neuron disease are disqualified from driving.

Muscular Dystrophies

- Hereditary, progressive, degenerative diseases of the muscle
- May be treatable or non-progressive
- **Certification Decision should include:**
 - Evaluation by neurologist or physiatrist
 - Specialist may recommend simulated driving skills test or equivalent function test
- Annual recertification that repeats specialist evaluation and driving test if indicated.

Muscular dystrophies are hereditary, progressive, and degenerative diseases of muscles which typically interferes with safe driving. Some of these diseases may be treatable or non-progressive. The certification decision should include an evaluation by a neurologist or a physiatrist who may recommend a simulated driving skills test or an equivalent function test. Annual recertification for drivers with a muscular dystrophy disease that is treatable or non-progressive must repeat the specialist evaluation and driving test. There is no applicable waiting period.

Neuromuscular Junction Disorders

Weakness of the extremities and easily fatigued. Vision often affected.

- Myasthenia Gravis
- Myasthenic Syndrome
- Lambert-Eaton
- Neuromyotonia

Generally Disqualifying Conditions

- **Certification Decision should include:**
 - Evaluation by neurologist or physiatrist
 - Specialist may recommend simulated driving skills test or equivalent function test

Annual recertification that repeats specialist evaluation and driving test if indicated.

Muscle weakness, fatigue, and affected vision are often present with neuromuscular junction disorders such as Myasthenia Gravis. Generally drivers with neuromuscular junction disorders are not qualified to drive, and therefore there is not an applicable certification interval and no waiting period. The certification decision should include an evaluation by a neurologist or physiatrist. The specialist may recommend a simulated driving skills test or an equivalent functional test. If the driver's disorder is treatable and non-progressive, they should have an annual recertification exam that repeats the specialist evaluation and driving test if applicable.

Peripheral Neuropathies

- Affects sensory and/or motor nerves of the feet and hands.
- Most commonly associated with Diabetes.
- May be treatable or non-progressive.

Evaluate for sensory modalities of pain, light touch, position and vibratory sensation in the toes, feet, fingers, and hands for signs of peripheral neuropathy.

Certification Decision may include:

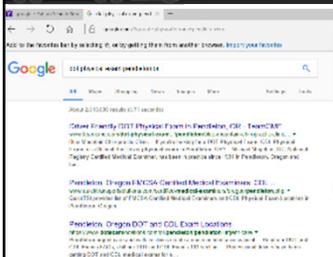
- Evaluation by neurologist or physiatrist
- A simulated driving skills test or equivalent functional test

Annual recertification that repeats specialist evaluation and driving test if indicated.

Peripheral Neuropathies can be caused by many conditions but over 50% are associated with diabetes mellitus. Medical examiners should evaluate for pain, light touch, position and vibratory sensation in the toes, feet, fingers, and hands of drivers who have peripheral neuropathy. The condition may be treatable or non-progressive. The certification decision may include an evaluation by a neurologist or physiatrist who may recommend a simulated driving skills test or equivalent functional test. There should be an annual recertification exam that repeat the specialist evaluation and driving test.



This is the end of Module 5.



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