

VA School Bus Physical—Medical Issues

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Bon Secours OccuMed

Objectives

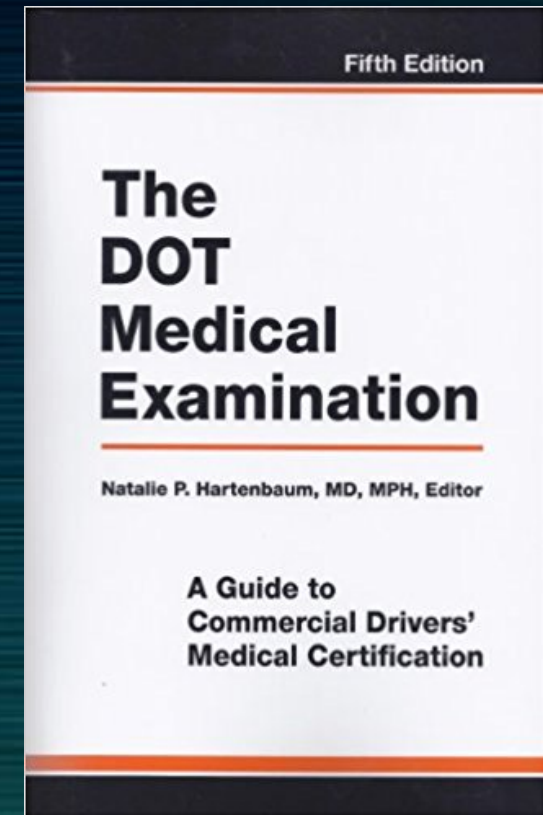
- Understand what the examiner should be looking for
- General understanding of common conditions encountered on examination
- Identify possible areas of concern from a medical standpoint

- Per VA CDL self certification- Excepted to transport school children and/or school staff between home and school
- Section 22.1-178, of the *Code of Virginia* requires drivers of school and activity buses to:
 - 1. Have a physical examination of a scope prescribed by the Board of Education with the advice of the Medical Society of Virginia and furnished on a form prescribed by the Board of Education showing the results of such examination.

Driver Examinations Requirement



- As school bus are CDL Passenger drivers
 - Recommend FMCSA Guidance for medical conditions
- Physician
 - Does not have to have any special certification
 - Recommend NRCME certified
 - Recommend one or two facilities to choose from
 - Avoids doctor shopping
- Guidance
 - Unless otherwise stated, all recommendations are GUIDANCE (i.e. no legal binding) – meant as standard of care
 - Physician’s discretion re: certification



- **Driver's Duties may include:**

- Loading and unloading children or items
- Inspecting vehicle
- Lifting children in emergency; opening windows and doors

- **Driver must be able to:**

- Bend and stoop
- Maintain crouching position to inspect
- Frequent entering and exiting a cab
- Ability to climb stairs

- **Driver must have:**

- Perceptual skills to monitor complex driving situation
- Judgment skills to make quick decisions
- Manipulative skills to control an oversize steering wheel, shift gears, and maneuver vehicle in crowded areas

Driver Abilities to Consider



Medical Conditions

- **Non-discretionary standard that must be used to determine certification.**
- Measured in EACH eye individually AND BOTH eyes together.
- Minimum distant vision of at least 20/40 in each eye with or without corrective lenses.
- Distant binocular vision of at least 20/40 in both eyes, with or without corrective lenses.
- Field of vision of at least 70° in the horizontal meridian of each eye.
- • Color vision must be sufficient to recognize traffic signals and devices showing the standard red, amber, and green traffic signal colors.
- A medical examiner, ophthalmologist, or optometrist may perform and certify vision test results. The medical examiner determines certification status.
- • **Monocular vision is disqualifying.**

VISION



- Whispered voice test at 5 feet in at least one ear
- Hearing aid OK to pass
- Better ear cannot have average threshold of 40dB-A at 500/1000/2000 Hz .
- **• For the whispered voice test, the driver should be 5 feet from the examiner with the ear being tested turned toward the examiner. The other ear is covered. Using the breath which remains after a forced expiration, the examiner whispers words or random numbers such as 66, 18, 23. Do not use only S sounding words. If they fail the whispered voice test, the audiometric test should be administered.**
- • Office audiometry NOT able to test person with a hearing aid--referred for accurate testing.

Hearing



- **Stage 1 Hypertension**
 - BP 140-159 / 90-99 mmHg
 - Certify – yes but one time for three months only
 - Recertify annually if BP is \leq 140/90 on annual exam.
 - If not, but $<$ 160/100 certify for 3 months for one time only.
- **Stage 2 Hypertension**
 - 160-179 / 100-109 mmHg
 - Certify – yes but one time for three months only
 - At recheck if BP is \leq 140/90 mmHg and treatment is well tolerated can certify for 6 months from date of initial exam.
- **Stage 3 Hypertension**
 - \geq 180/110 mmHg
 - No, immediately disqualifying.
 - Yes, at recheck if \leq 140/90 mmHg, and treatment is well tolerated. Certify for 6 months from date of initial examination.
- **Secondary Hypertension**
 - Based on above stages
 - Yes if Stage 1 or nonhypertensive.
 - At least three months after any surgical correction (Renal artery stenosis)

Hypertension



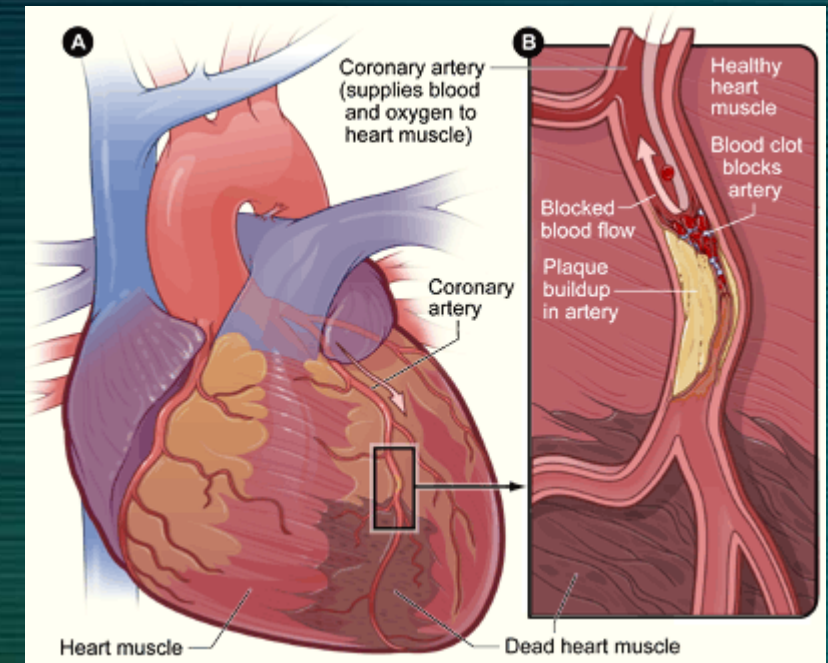
- **Myocardial Infarction**

- 2 month wait
- No anginal symptoms
- Cleared by cardiologist
- $\geq 40\%$ ejection fraction by echocardiogram or ventriculogram
- Tolerance to medication
- Stress test 4-6 weeks after MI and repeated at least every 2 years
- Stage II Bruce Protocol - > 6 METS, 85% maximal predicted heart rate, rise in SBP ≥ 20 mmHg without angina, and no significant depression
- Annual examination, asymptomatic, cardiologist evaluation recommended

- **Stable Angina Pectoris Guidelines**

- Annual examination
- Evaluation by cardiologist recommended
- No rest angina or change in pattern within 3 months
- ETT every two years - > 6 METS, heart rate $\geq 85\%$ MPA
- No symptoms from medication

Cardiovascular



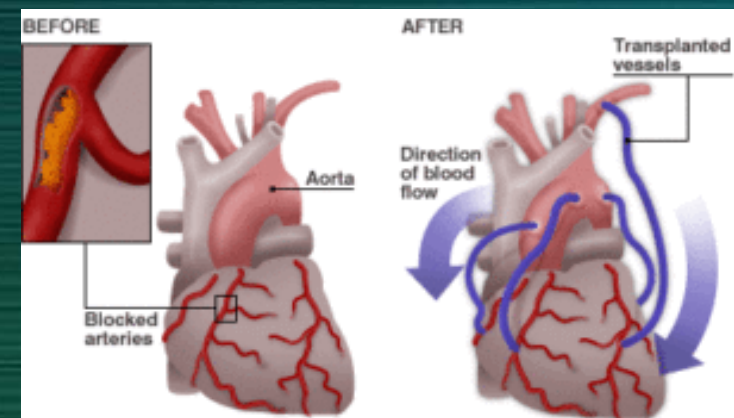
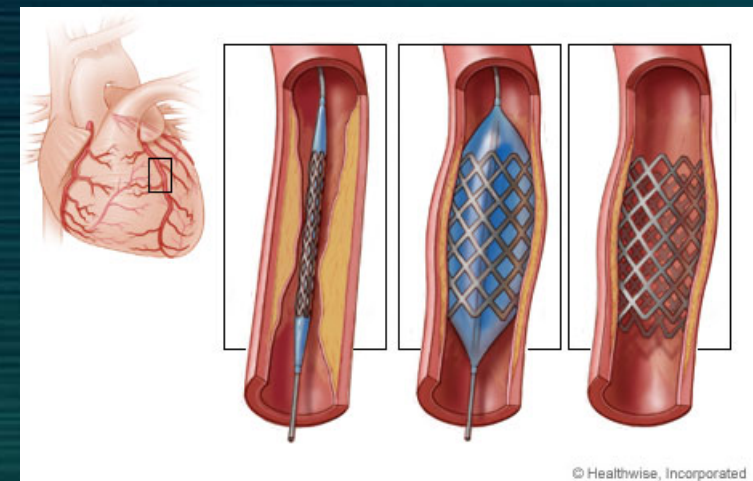
- **Percutaneous Coronary Intervention (PCI) Guidelines**

- Elective – NOT in setting of MI or unstable angina
- One week wait with approval by cardiologist
- Asymptomatic
- No injury to vascular access site
- Negative ETT 3-6 months post procedure and at least every 2 years
- Annual qualification and eval by cardiologist recommended
- Tolerance of medications

- **CABG – Coronary Artery Bypass Grafting Guidelines**

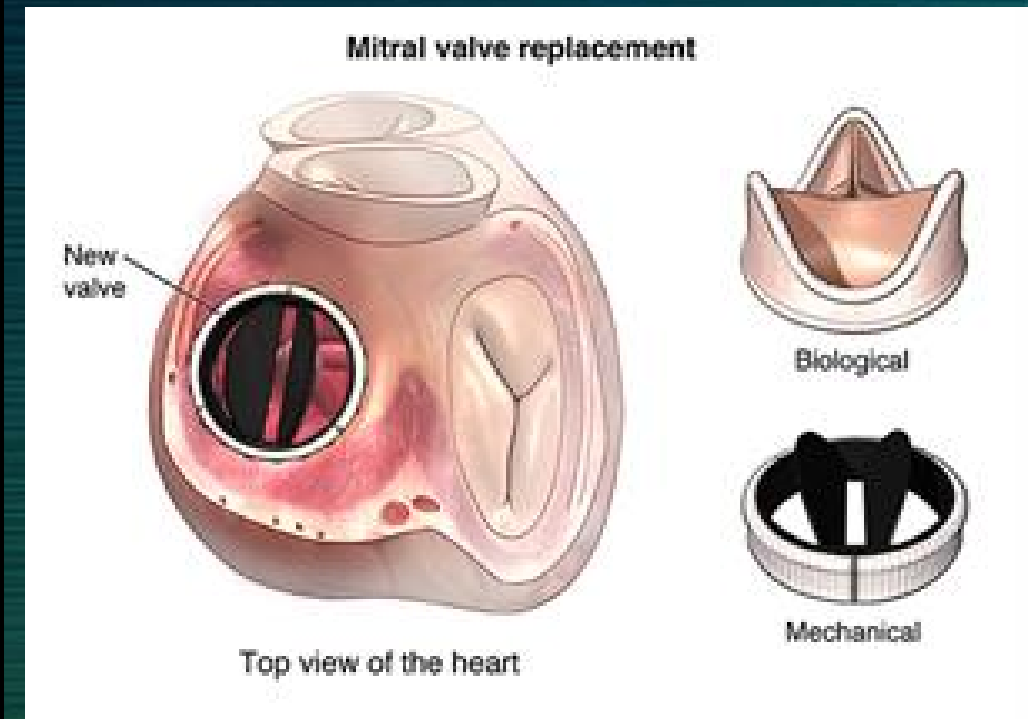
- Annual qualification examination
- Yearly ETT beginning at 5 years
- Radionuclide stress testing if abnormal resting EKG, unsatisfactory ETT or dysrhythmia

Cardiovascular - Interventions



- **Valve Replacement Guidelines**
- At least 3 month wait, cleared by cardiologist and asymptomatic
- Mechanical
 - – EF must be $\geq 40\%$
 - – no thromboembolic complications, or pulmonary hypertension
 - – must maintain adequate anticoagulation and monthly INR
- Anticoagulation not required if biologic prosthetic valve
- Atrial fibrillation post valve replacement
 - - adequately anticoagulated at least one month
 - - monthly INR
 - - adequate control of rate and rhythm
 - - clearance by cardiologist
 - - annual examination

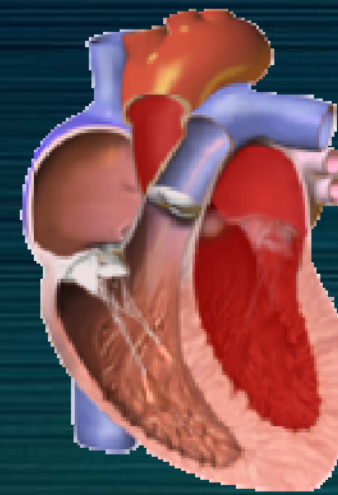
Cardiovascular - Valve



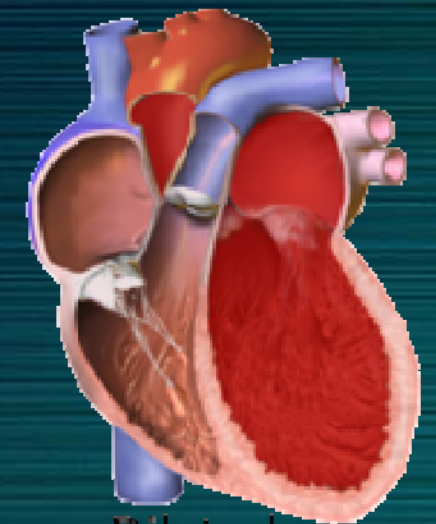
- **Cardiomyopathy Guidelines**

- • Hypertrophic or restrictive cardiomyopathy – disqualified
- Idiopathic dilated cardiomyopathy and congestive heart failure, disqualify if
 - - asymptomatic but ventricular arrhythmias and LVEF $\leq 50\%$
 - - asymptomatic, no ventricular arrhythmias and LVEF $\leq 40\%$
- Certify if:
 - Asymptomatic
 - No ventricular arrhythmias
 - LVEF 40% - 50%
 - Annual certification
 - Annual cardiology evaluation for echocardiogram and Holter monitoring

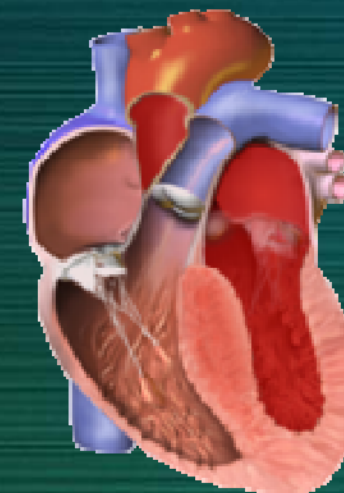
CV - Cardiomyopathy



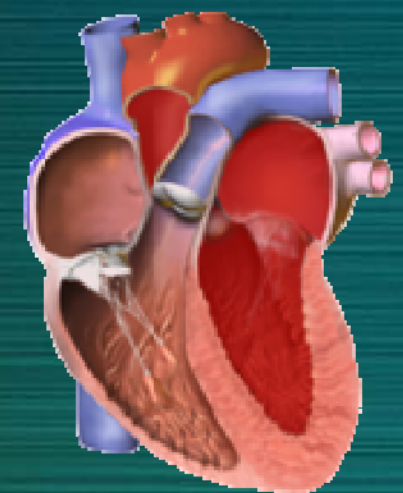
Normal



Dilated



Hypertrophic



Restrictive

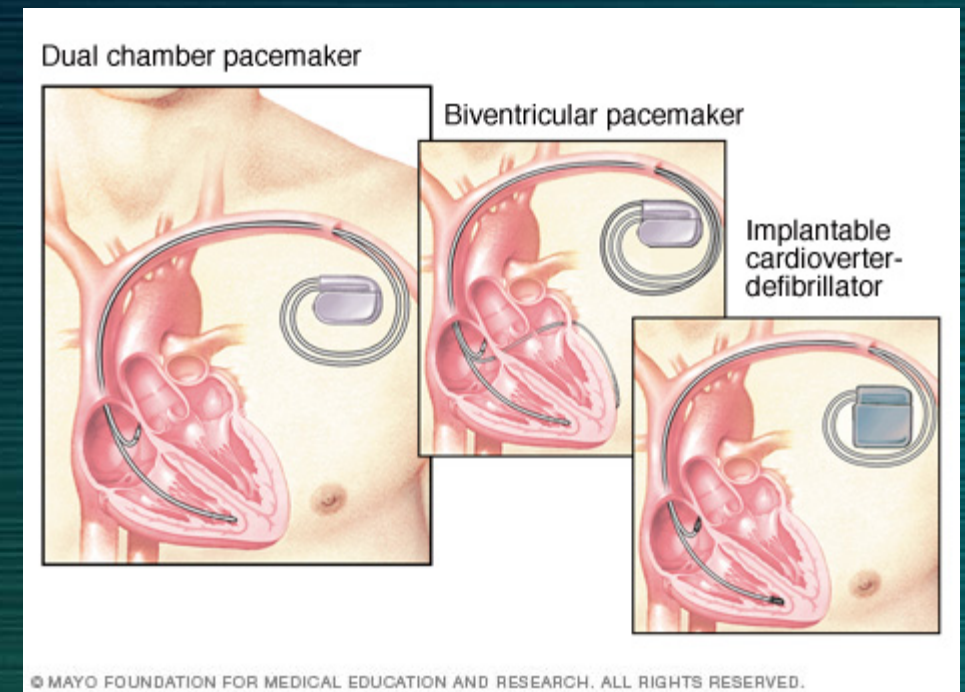
- **Pacemaker Cardiac**

- Sinus node dysfunction or atrioventricular block
 - Disqualify unless one month after pacemaker and documented correct function
 - -annual examination and documented pacemaker checks
- Neurocardiogenic syncope
 - disqualify if symptoms
 - certify if at least 3 months after pacemaker
 - document correct function
 - absence of symptom recurrence
 - annual examination with pacemaker checks

- **Implantable Cardiac Defibrillator**

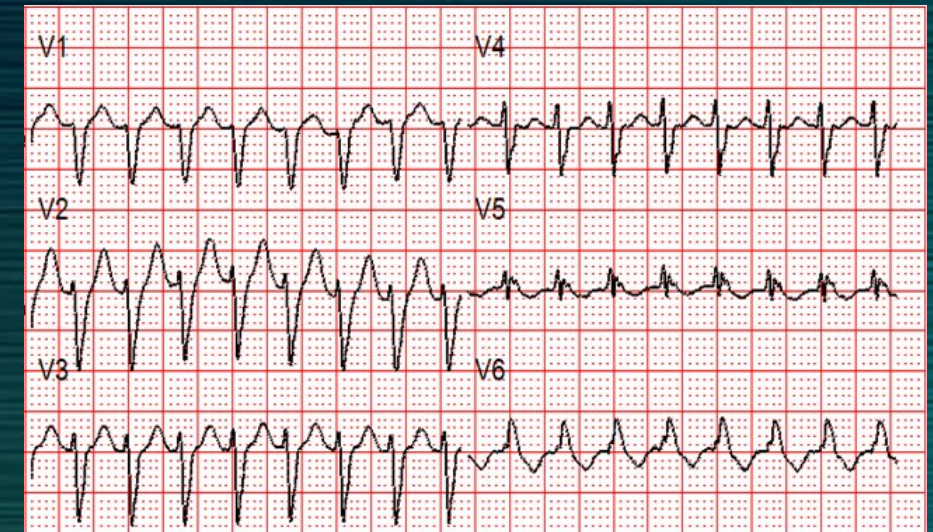
- Primary or secondary prevention – **Disqualified**
- Do not prevent arrhythmias – treat them when they occur
- Remain at risk for loss of consciousness
- Primary prevention – ICD because of sufficient risk of arrhythmia

CV – Pacemaker and ICD



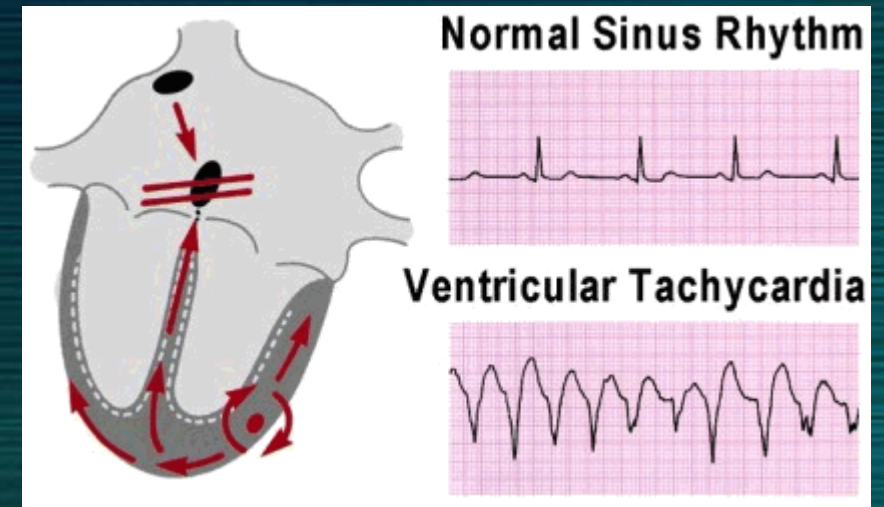
- **Supraventricular Tachycardia**
- Atrial flutter – same as atrial fibrillation
- If isthmus ablation – at least one month after procedure, arrhythmia successfully treated and cleared by electrophysiologist
- Multifocal atrial tachycardia
 - certify if asymptomatic unless other disqualifying condition
 - no if symptomatic
- atrioventricular reentrant tachycardia, WPW, atrial tachycardia, junctional tachycardia
 - disqualify if symptomatic in WPW with atrial fibrillation
 - certify if asymptomatic – treated and asymptomatic for at least 1 month and cleared by expert in cardiac arrhythmia

CV - SVT



- **Ventricular Arrhythmias**
- With Coronary artery disease
 - sustained VT – Disqualify
 - NSVT, LVEF <40% - Disqualify
 - NSVT, LVEF \geq 40% - Disqualify if symptomatic
 - At least one month after successful therapy, drug or other, and cleared by cardiologist
 - Annual certification with cardiology evaluation
- With dilated cardiomyopathy
 - sustained VT – Disqualify
 - NSVT, LVEF \leq 40% - Disqualify
 - Syncope, near syncope, any LVEF – Disqualify
 - Long QT syndrome or Brugada syndrome – Disqualify

CV – Ventricular arrhythmia



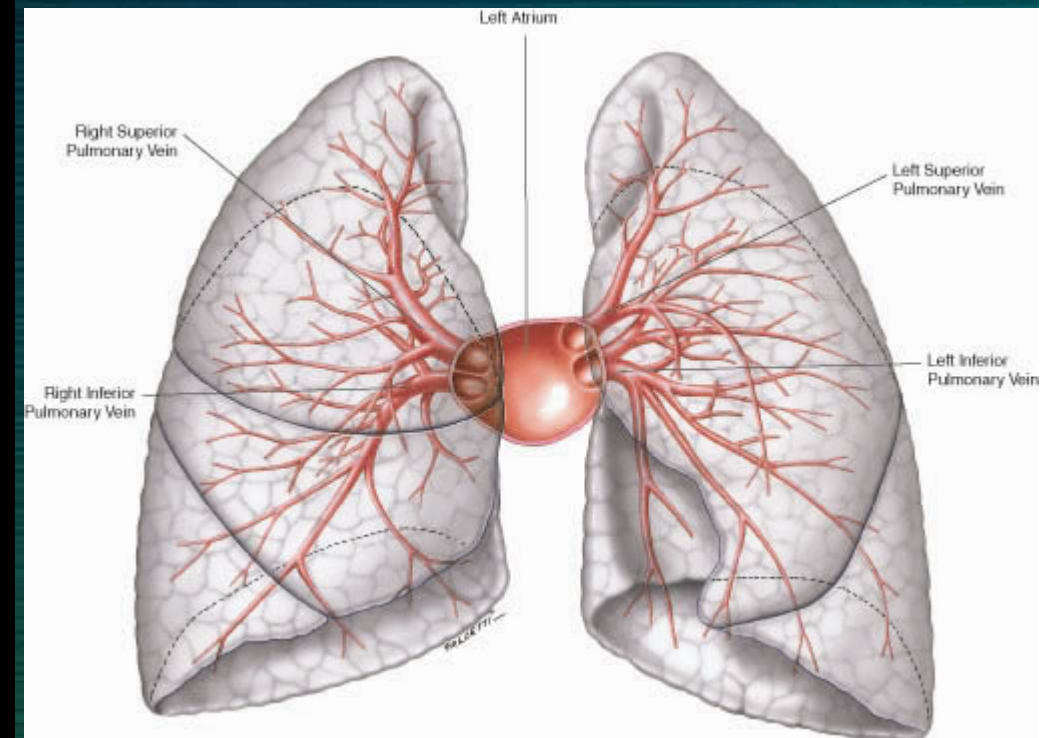
- **Secondary Pulmonary Conditions**

- DVT and Pulmonary PE unqualified unless on anticoagulation therapy and stable for 3 months after PE and stable for 1 month after DVT.

- **Lung Cancer**

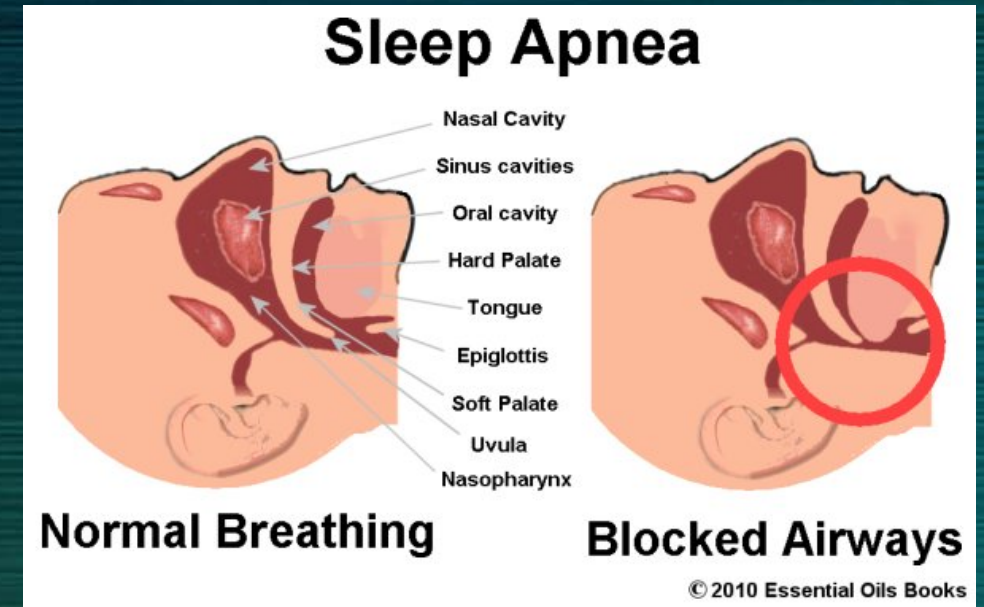
- Unqualified if:
 - Severe cough
 - Dyspnea
 - Wasting
 - Hypoxemia
 - Metastatic brain disease
- Qualified if cure after resection and no symptoms.
- If stable and under treatment, monthly monitoring.
- Undergoing radiation:
 - Meet PFT criteria
 - Asymptomatic
 - Monitored every 3 months for two years then yearly for five years.

Pulmonary



- Consider testing if:
 - BMI >33 with 3 medical conditions (e.g. DM, HTN, CAD, etc), or small or recessed jaw, small airway (Mallampati Scale score of Class 3 or 4), or neck size \geq 17 inches (male), 15.5 inches (female)
 - BMI >40, even with no medical conditons
 - Admits to daytime sleepiness
- Testing should be by Polysomnogram (home studies should be discussed with Sleep MD)
 - Consideration for threshold: AHI >15-20
- May be conditionally certified (for 1 month, then 3 months) if the following conditions are met:
 - Successfully treated for one week/3 months, and
 - Demonstrate at least minimal compliance (i.e., 4 hours per use on 70 percent of nights), and
 - No excessive sleepiness during the major wake period.

Sleep Apnea



- A driver with an OSA diagnosis may be recertified annually, based on demonstrating compliance with treatment.
 - Minimally acceptable compliance with CPAP at least 4 hours per day of use on 70 percent of days over one year
 - If operative procedure performed (bariatric, UPPP), must have follow up sleep study to show no sleep apnea.
- Practical Considerations

Sleep Apnea



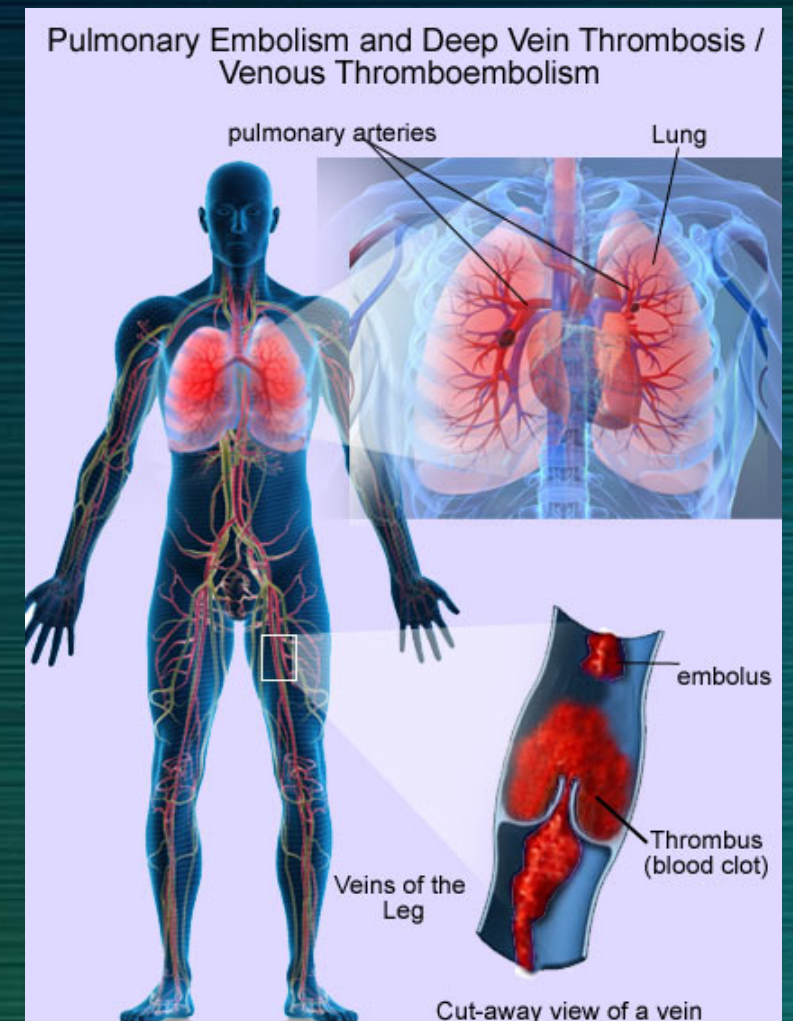
- **Peripheral Vascular Disease**

- PVD – certify annually if no disqualifying CVD
- Intermittent claudication –
 - - certify at least 3 months after surgery with relief of symptoms if performed
 - - rest pain – disqualify if symptoms
 - - certify at least 3 months after surgery with relief of symptoms and will need annual recertification

- **Venous Disease**

- DVT – no if symptoms
 - - certify if no residual DVT
 - - if on Coumadin – regulated at least 1 month
 - - monthly INR
 - - annual recertification
- Pulmonary embolus – if no symptoms
 - - certify if no PE for at least 3 months
 - - on appropriate treatment
 - - regulated at least one month on Coumadin
 - - monthly INR
 - - annual recertification

CV - Vascular



- **Aneurysms Guidelines**

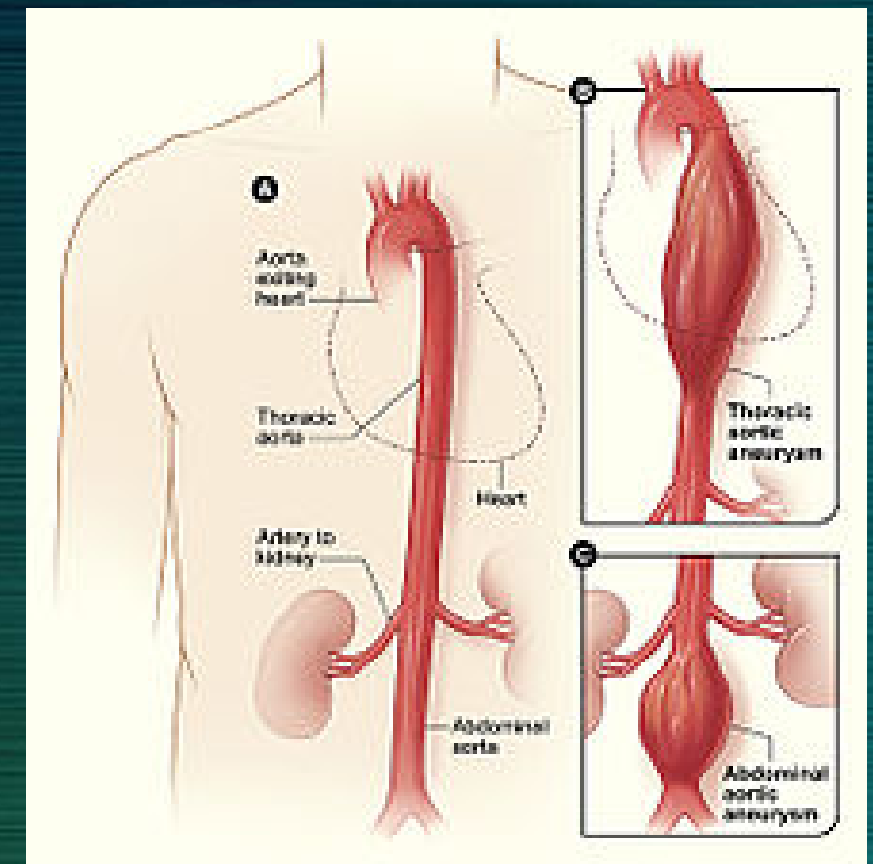
- Thoracic

- - certify if < 3.5 cm
- - certify at least 3 months post surgical repair and cleared by cardiovascular specialist and will need annual recertification

- Other vessels – assess risk of rupture

- - certify at least 3 months after surgical repair and clearance by specialist and will need annual recertification

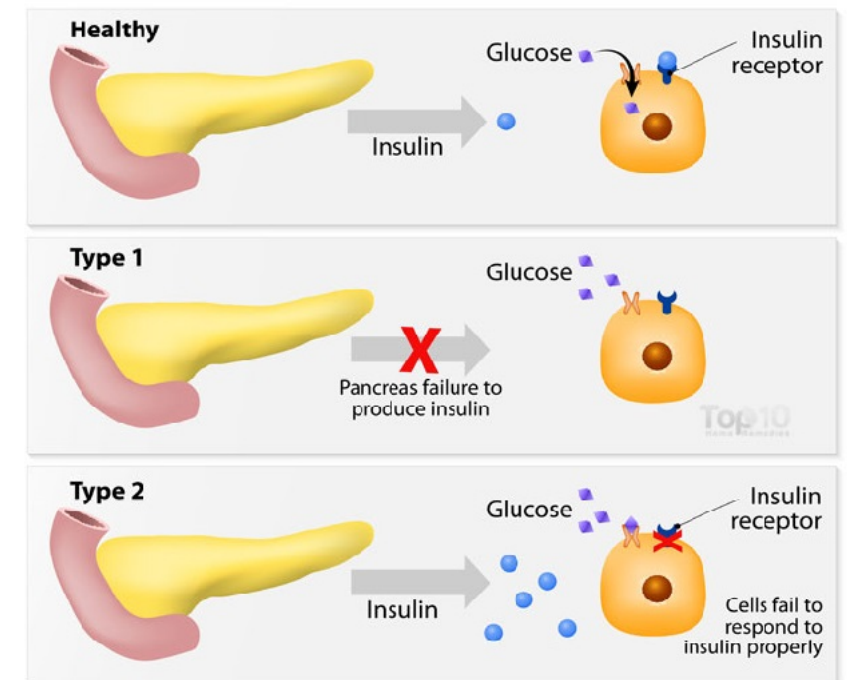
CV - Aneurysm



- A person is qualified to drive a CMV if that person has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control.
- Diet and oral agents are not disqualifying but the driver must remain under adequate supervision so poor control and/or hypoglycemia could be disqualifying.
- **Insulin use was an automatic disqualification and unable to be appealed**
- Byetta/Victoza is not insulin therefore is permitted under current FCMSA rules but will need a written statement from their treating physician documenting frequent monitoring
- HgB A1C – control over last 3 months
 - Over 10—disqualification
 - Preference – less than 8
 - Examiner determined

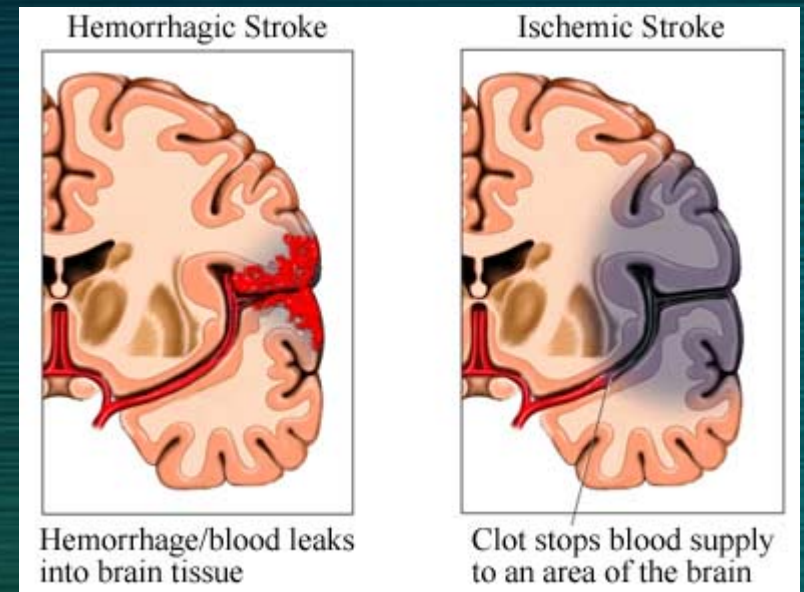
Diabetes

DIABETES MELLITUS



- **TIA**
 - No driving within one year
 - Subsequent clearance by neurologist
- **Thrombotic/Embolic CVA**
 - Brainstem/ cerebellum – no driving within one year
 - Other areas – no driving within 5 years
 - Neuro exam
 - Recertify annually

Neurological Conditions – Vascular



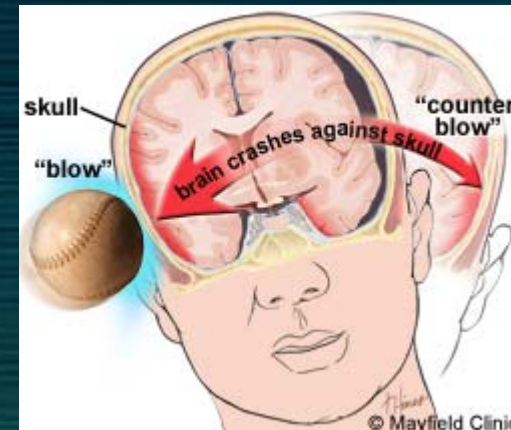
- **Traumatic Brain Injury**

- Careful eval before driving
- Recertify annually or less depending on extent

- **Seizures**

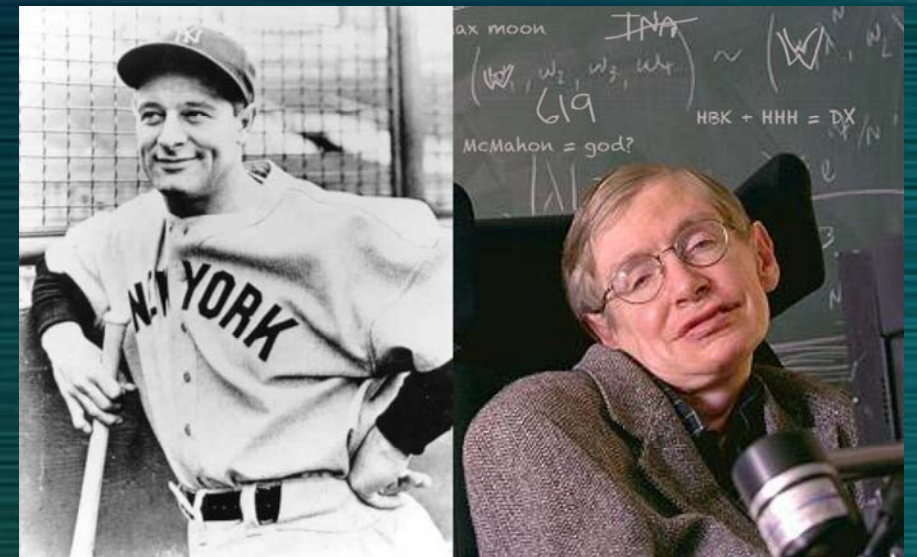
- Uncontrolled epilepsy – disqualify
- Controlled epilepsy – disqualify
- History of seizure disorder – qualified if off meds and no seizure for 10 years
- History of one unprovoked seizure – off meds and no seizure for 5 years
- Provoked seizure – consider cause (one time syncope vs. lidocaine induced vs. head trauma vs. meningitis)
- Febrile seizure – no restrictions

Neurological Conditions – Structural/Electric



Neurological Conditions

- **Dementias**
 - Decline in any mental domain, or any illness where dementia is common is disqualifying
 - Disqualified if diagnosed even if only entertained
- **Neuromuscular Diseases**
 - Motor neuron diseases – disqualify
 - Neuromuscular junction disease – disqualified (may appeal)
 - Muscular dystrophy, dermatomyositis, metabolic muscle disease, congenital myopathies- disqualify
- **CNS Tumor**
 - Disqualify
 - Treated benign tumors may appeal



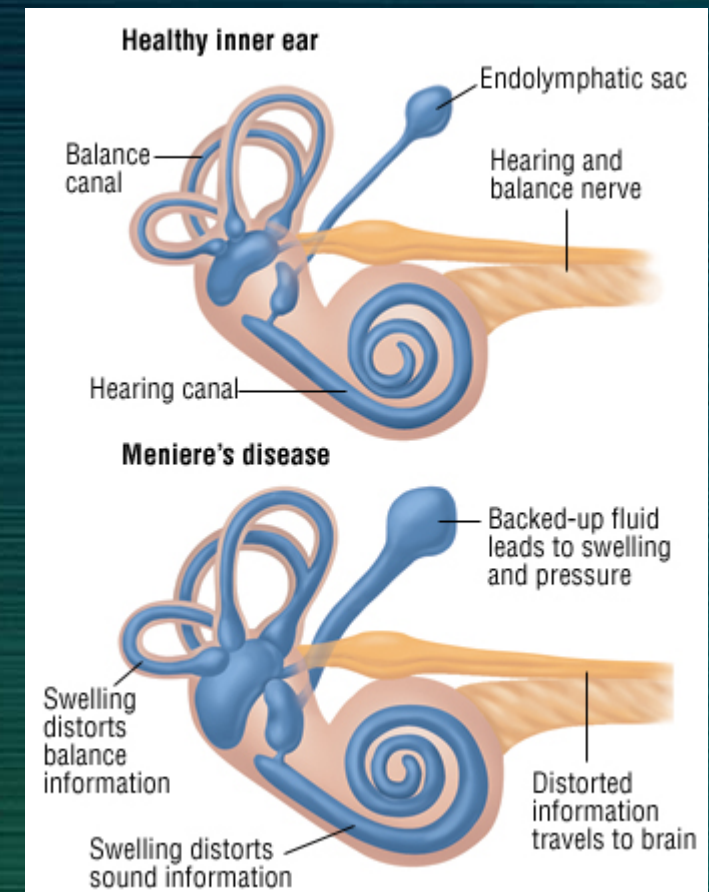
- **Headaches**

- • Chronic or incapacitating MAY be disqualifying
- • Medication use may be problematic

- **Vertigo**

- BPV – requalify after 2 months w/o symptoms
- Acute /chronic vestibulopathy – same
- Meniere's and other chronic – disqualify

Neurological Conditions



- **Narcolepsy**
 - Disqualifying
- **Neuro or Psych Regulatory Issues**
 - Mental conditions that can affect judgement , perceptions of reality and reaction time mayu be disqualifying
 - Medication side effects may necessitate disqualification
 - Conditions that impair the ability to control a vehicle may be disqualifying
 - Strongly recommend neurology, psychiatry, or neuropsych eval for any CNS insult
 - Anorexia nervosa and bulimia – may be disqualified
 - Personality disorders may be disqualified (aggressive driving increased)

Neurological/ Psychiatric Conditions



Medications/ Drugs

- **Medications – NOT qualified**
 - Methadone
 - Suboxone
 - Provigil (at least 6 wks + doctor's note)
- **Medications – May be qualified (per examiner)**
 - Anxiolytics -BZD
 - Hypnotics (Ambien, Lunesta)
 - Barbiturates (butalbital)
 - Opioid and opiates (codeine, oxycodone, hydrocodone)
- **Alcohol**
 - Current clinical diagnosis of alcoholism is disqualifying





Questions?