

CATEGORY B CARDIOVASCULAR CONDITIONS

1. Cardiovascular disease may affect a driver's ability in a variety of ways. For this reason, safety assessment level guidelines and standards are shown for four of the more common circumstances. Although an individual may have more than one abnormality, the one which causes the most limitation is the one under which they should be assessed for this category. It is essential that all aspects of their condition be evaluated in an appropriate safety assessment level.
2. GENERAL HEART DISEASE: This safety assessment level is made for any patient having had any diagnosis of heart disease. The levels are based on the functional classification of the American Heart Association.
 - Class I. Patients with heart disease but with no limitations of physical activity: Ordinary physical activity causes no undue dyspnea, anginal pain, fatigue or palpitation.
 - Class II. Patients with slight limitations of physical activity: They are comfortable at rest and with mild exertion. They experience symptoms only with the more strenuous grades of ordinary activity.
 - Class III. Patients with marked limitation of physical activity: They are comfortable at rest, but experience symptoms even with the milder forms of ordinary activity.
 - Class IV. Patients with inability to carry on any physical activity without discomfort: Symptoms of cardiac insufficiency or of the anginal syndrome may be present, even at rest, and are intensified by activity.
3. RHYTHM: Patients with rhythm disturbances should not be given safety assessment levels 2 or 3, except when the arrhythmia has been so remote and well controlled, or of such a minor nature, that the patient is expected to drive without presenting a risk to the public.
4. AFTER MYOCARDIAL INFARCTION OR CARDIAC SURGERY: No patient in these categories should drive until six weeks after the event or until the condition is stable, as determined by a health care professional. Because of the risk of infarction, recurrence or other cardiovascular events such as arrhythmia, after infarction or surgery, if the health care professional believes a patient has an unusually mild condition, a Safety Assessment Level 3 may be given on his recommendation. A treadmill stress test should be repeated after six months.
5. HYPERTENSION: Apart from its complications, hypertension is largely an asymptomatic condition and in itself does not impair fitness to drive. Medications which may have a sedative side effect or cause unexpected orthostatic hypotension must be assessed by the health care professional as to their effect on the safety assessment. Visual, neurological or cardiovascular complications should also be assessed under other categories.
6. Other less common cardiovascular conditions such as fistula, coarctation, cardiogenic syncope, severe peripheral arterial or venous vascular disease etc., should be assessed in a fashion comparable to those listed, based upon anticipated functional ability while driving.
7. COMMERCIAL INTRASTATE DRIVERS: Commercial drivers who have had an implanted cardioverter or cardiac defibrillator (ICD) may, under certain circumstances, be qualified for an intrastate commercial driving privilege. Commercial drivers who have had LVAD are disqualified from driving any commercial vehicle. New applicants for K restriction are not accepted. Drivers currently on K restriction program are subject to periodic reviews and MAB approval.

ICD-Disqualifying for FMCSA Medical Card. If a driver wishes to apply for a renewal of the Intrastate Waiver (K restriction), they must submit the following to be reviewed by the Medical Advisory Board:

Relevant factors which the committee will need to consider for qualification of a driver of commercial vehicles with an implanted cardioverter and/or cardiac defibrillator (ICD) are as follows and must be addressed in the letter from the treating cardiologist:

- a. Cardiac diagnosis and NYHA classification.
- b. Reason for implantation: primary prevention or treatment of recurrent arrhythmia
 - If treatment: what is the arrhythmia being treated and what is the efficacy of treatment?

- Was there ever loss of consciousness, syncope or near-syncope?
 - Date and results of last electro-physiologic testing.
 - Type of device inserted.
- c. When was device inserted, when was the last time the device activated to treat arrhythmia and were there associated symptoms; i.e.; syncope, distraction, etc.?
 - d. What is the Left Ventricular Ejection Fraction and date last estimated?
 - e. Is coronary artery disease/CABG present? Has there been recent assessment of patency?
 - f. Is the patient on beta blocker therapy?
 - g. Statement that the cardiologist understands the duties of commercial drivers and believes this driver is safe to drive a commercial vehicle.

ADDITIONAL INFORMATION FOR CATEGORY B: CARDIOVASCULAR ASSESSMENT

1. **CARDIOVASCULAR ASSESSMENT LEVEL** Most antihypertensive agents have potential side effects which may affect driving capability. The examining health care professional should be alert to the following potential problems which may be more prominent or likely with certain antihypertensives as listed. Each hypertensive applicant who is receiving antihypertensive medication should be specifically questioned for these side effects:

- a. **ORTHOSTATIC HYPOTENSION**

Virtually any antihypertensive, especially when used in combinations including diuretics, ACE inhibitors, calcium channel blockers, alpha blockers, clonidine, especially Guanethidine and Guanadrel.

- b. **SYNCOPE**

Alpha Blockers

- c. **DROWSINESS/SEDATION**

Methyldopa, Guanabenz, Guanadrel, Reserpine, Clonidine

- d. **DIZZINESS**

Most beta blockers, alpha blockers, calcium channel blockers. Also, Apresoline may aggravate angina symptoms in individuals with pre-existing clinically significant coronary artery disease.

- e. **OTHER AGENTS AFFECTING DRIVING SAFETY**

Because of their greater tendency to produce side effects, the following agents are even more likely to affect driving safety: Guanethidine, Methyldopa, Reserpine, Guanabenz and Guanadrel

**CATEGORY B: CARDIOVASCULAR CONDITIONS
PRIVATE**

Safety Assessment Level	General Heart Disease	Rhythm	After myocardial infarct or surgery	Medical Report Required	Interval for Review	License Class and Restrictions
1	No History. Past heart disease, fully recovered	No history or transient arrhythmia in childhood	No history	No	N/A	Private Vehicles
2	Heart disease AHA class I, no limits, no symptoms on ordinary activity	Transient isolated arrhythmia without recurrence in past five (5) years	Unusually mild condition *	No	N/A	Private Vehicles
3	AHA class I, no undue symptoms on ordinary activity	Past arrhythmia, normal rhythm; stable with pacemaker for six (6) months	One (1) year minimum; symptoms only with strenuous activity *	Yes	1 year	Private Vehicles
4	AHA class II, slight limit on activity; comfortable on mild exertion *	Arrhythmias controlled or stable for three (3) months	Three (3) months minimum; no symptoms at rest *	Yes	1 year	Private Vehicles
5	Class III, limited activity with symptoms on activity; anticipated aggravation by unlimited driving *	N/A	N/A	Yes	1 year	Private vehicles
6	Class III, limited activity with fluctuation in symptoms on exertion	Unstable rhythm profile; supraventricular tachycardia which is hemodynamically unstable; recurring ventricular arrhythmias proven by Holter monitor; driving limitations & healthcare professional's recommendation should be based upon anticipated degree of instability of rhythm **	Recovery time frame & restrictions to be determined by health care professional & appropriate safety assessment level determined; see narrative paragraph 4 *	Yes	6 months	Private vehicles; recommended speed, area, and daylight only restrictions
7	Special circumstances not covered above or patient under evaluation			Yes	6 months ^{a, d}	Private vehicles; special restrictions as recommended by healthcare professional
8	Heart disease. AHA class IV, limitations with any activity, symptoms at rest	Arrhythmias with history of loss of consciousness in past	Recovery not sufficient to drive	Yes	N/A	No driving

^a Or as recommended by healthcare professional

^b see narrative for consideration of mild or stable cases

^c If medication does not interfere with alertness or coordination

^d Or profile level 5, with long term stability

^e Level 6, Type II second degree heart block or trivascular block

CATEGORY B: CARDIOVASCULAR CONDITIONS

COMMERCIAL

Safety Assessment Level	General Heart Disease	Rhythm	After myocardial infarct or surgery	Medical Report Required	Interval for Review	License Class and Restrictions
1	No history. Past heart disease, fully recovered	No history or transient arrhythmia in childhood	No history	N/A	N/A	Commercial Unlimited
2	Heart disease AHA Class I, no limits, no symptoms on ordinary activity	Transient isolated arrhythmia without recurrence in past five (5) years	Unusually mild condition ^b	N/A	N/A	Commercial Unlimited
3	AHA Class I, no undue symptoms on ordinary activity	Past arrhythmia, normal rhythm; stable with pacemaker for six (6) months	One (1) year minimum; symptoms only with strenuous activity ^a	N/A	N/A	Commercial Unlimited
4	AHA Class II, slight limit on activity, comfortable on mild exertion ^d	Arrhythmias controlled or stable for three (3) months	Three (3) months minimum; no symptoms at rest ^a	N/A	N/A	Commercial Unlimited
5	Class III, limited activity with symptoms on activity, anticipated aggravation by unlimited driving ^d	Unstable rhythm profile; supraventricular tachycardia which is hemodynamically unstable; recurring ventricular arrhythmias proven by Holter monitor. Driving limitations & health care professional's recommendation should be based upon anticipated degree of instability of rhythm ^c	Recovery time frame & restrictions to be determined by health care professional & appropriate safety assessment level determined; see narrative paragraph 4 ^b	N/A	N/A	No commercial driving
6	Class III, limited activity with fluctuation in symptoms on exertion			N/A	N/A	No commercial driving
7	Special circumstances not covered above or patient under evaluation			N/A	6 months ^a	Possible commercial driving, with health care professional recommendation
8	Heart disease. AHA Class IV, limitations with any activity, symptoms at rest	Arrhythmias with history of loss of consciousness in past	Recovery not sufficient to drive	N/A	N/A	No driving

^a Or as recommended by health care professional, longer or shorter interval according to stability

^b See narrative for consideration of unusually mild or stable cases

^c If medication does not interfere with alertness or coordination