U.S. Department
of Transportation
Federal Aviation Administration

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CARDIOVASCULAR EVALUATION SPECIFICATIONS

These specifications have been developed by the Federal Aviation Administration (FAA) to determine an applicant's eligibility for airman medical certification. Standardization of examination methods and reporting is essential to provide sufficient basis for making determinations and the prompt processing of applications. This cardiovascular evaluation, therefore, must be reported in sufficient detail to permit a clear and objective evaluation of the cardiovascular disorder(s) with emphasis on the degree of functional recovery and prognosis. It should be forwarded to the FAA immediately upon completion. Inadequate evaluation, reporting, or failure to promptly submit the report to the FAA may delay the certification decision. As a minimum, the evaluation must include the following:

I. MEDICAL HISTORY. Particular reference should be given to cardiovascular abnormalities—cerebral, visceral, and/or peripheral. A statement must be included as to whether medications are currently or have been recently used, and if so, the type, purpose, dosage, duration of use, and other pertinent details must be provided. A specific history of any anticoagulant drug therapy is required. In addition, any history of hypertension must be fully developed and if thiazide diuretics are being taken, values for serum potassium should be reported as well as any important or unusual dietary programs.

II. FAMILY, PERSONAL, AND SOCIAL HISTORY. A statement of the ages and health status of parents and siblings is required; if deceased, cause and age at death should be included. Also, any indication of whether any near blood relative has had a "heart attack," hypertension, diabetes, or known disorder of lipid metabolism must be provided. Smoking, drinking, and recreational habits of the applicant are pertinent as well as whether a program of physical fitness is being maintained. Comments on the level of physical activities, functional limitations, occupational, and avocational pursuits are essential.

III. RECORDS OF PREVIOUS MEDICAL CARE. If not previously furnished to the FAA, a copy of pertinent hospital records as well as out-patient treatment records with clinical data, x-ray, laboratory observations, and originals or copies of all electrocardiographic tracings should be provided. Detailed reports of surgical procedures as well as cerebral and coronary arteriography and other major diagnostic studies are of prime importance.

IV. GENERAL PHYSICAL EXAMINATION. A brief description of any comment-worthy personal characteristics as well as height, weight, representative blood pressure readings in both arms, funduscopic examination, condition of peripheral arteries, carotid artery auscultation, heart size, heart rate, heart rhythm, description of murmurs (location, intensity, timing, and opinion as to significance), and other findings of consequence must be provided.

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V. **LABORATORY DATA.** As a minimum, include actual values of:

A. Routine urinalysis and complete blood count.

B. Blood chemistries (values and normal ranges of the laboratory).

1. Total cholesterol, HDL, LDL, and triglycerides after 12- to 16-hour fast.

2. Fasting blood sugar. If the fasting blood sugar is elevated, submit a glycated hemoglobin (preferably A_{1c}) or evaluation for diabetes mellitus by the treating physician.

C. Electrocardiograms (ECG).

1. Resting tracing.

2. Exercise stress test (maximal) using preferably Bruce protocol.

a. Provide blood pressure determinations at rest, at each stage of the exercise stress test, and every minute during the recovery period.

b. Submit representative ECG tracings for the baseline exercise and recovery periods. (Computer generated, sample cycle tracings are not acceptable).

c. Obtain recovery ECG tracings until there is a return to the baseline configuration and/or until the baseline level of heart rate has been achieved.

NOTE: If exercise stress testing is contraindicated, or if the person being tested is unable to perform a maximal effort test because of symptoms, conditioning, or concurrent use of medication, please provide a full explanation.

D. If there is a history of valve replacement:

1. Echocardiogram.

2. 24-hour Holtor Monitor Study.

3. Coagulation studies if appropriate.

E. If there is a history of pacemaker implantation:

1. 24-hour Holtor Ambulatory ECG Study.

2. Results of current periodic electronic pacemaker surveillance.