



U.S. Department
of Transportation
**Federal Aviation
Administration**

Mike Monroney Aeronautical Center
Civil Aerospace Medical Institute (CAMI)
Aerospace Medical Certification Division

P.O. Box 26080
Oklahoma City, OK 73126

PROTOCOL FOR THE EVALUATION OF IMPLANTED PACEMAKER

A two-month recovery period shall elapse after the pacemaker implantation to allow for recovery and stabilization.

1. Copies of hospital/medical records pertaining to the requirement for the pacemaker, make of the generator and leads, model and serial number, admission/discharge summaries, operative report, and all electrocardiographic (ECG) tracings.
2. Evaluation of pacemaker function to include description and documentation of underlying rate and rhythm with the pacer turned "off" or at its lowest setting (pacemaker dependency), programmed pacemaker parameters, surveillance record, and exclusion of myopotential inhibition and pacemaker induced hypotension (pacemaker syndrome). Powerpack data including beginning of life (BOL) and elective replacement indicator/end of life (ERI/EOL).
3. Readable samples of all electronic pacemaker surveillance records post surgery or over the past six months. It must include a sample strip with pacemaker in free running mode and unless contraindicated, a sample strip with the pacemaker in magnetic mode.
4. An assessment and statement from your physician regarding general physical and cardiac examination to include symptoms or treatment referable to the cardiovascular system; your interim and current cardiac condition, functional capacity, medical history, and medications.
5. A report of current fasting blood sugar and a current blood lipid profile to include: total cholesterol, HDL, LDL, and triglycerides.
6. A current Holter monitor evaluation for at least 24 consecutive hours, to include select representative tracings.
7. A current M-mode, 2 dimensional, and Doppler echocardiogram.
8. A current ECG treadmill stress test. An electrocardiographic (ECG) treadmill stress test should achieve 100% of predicted maximal heart rate unless medically contraindicated or prevented either by symptoms or medications. Beta blockers and calcium channel blockers (specifically diltiazem and verapamil), or digitalis preparations should be discontinued for 48 hours prior to testing (if not contraindicated) in order to obtain maximum heart rate and only with consent of the treating physician. An applicant will be expected to demonstrate a minimum functional capacity by achieving a double product of 25,000 (maximum rate X maximum systolic pressure) or completing stage 3 of the Bruce protocol or 10 mets on other protocols. (Failure to achieve levels is not

necessarily disqualifying but will have to be considered on an individual basis.) The worksheet with blood pressure/pulse recordings at various stages, interpretive report, and actual ECG tracings must be submitted. Tracings must include a rhythm strip, a full 12-lead ECG recorded at rest (supine and standing) and during hyperventilation while standing, one or more times during each stage of exercise, at the end of each stage, at peak exercise, and every minute during recovery for at least five minutes or until the tracings return to baseline level. Computer generated, sample-cycle ECG tracings are unacceptable in lieu of the standard tracings and if submitted alone may result in deferment until this requirement is met.

If cardiac catheterization and coronary angiography have been performed, all reports and films must be submitted, if required, for review by the agency. Copies should be made of all films as a safeguard against loss.

Applicants found qualified for an airman medical certificate shall be required to provide periodic, follow-up cardiovascular evaluations, including annual 24-hour ambulatory ECG. Additional diagnostic testing modalities, including radionuclear, may be required if indicated.

It is the responsibility of each applicant to provide the medical information required to determine his/her eligibility for airman medical certification. A medical release form may help in obtaining the necessary information.

All information shall be forwarded in one mailing to:

Medical Appeals Branch, AAM-313
Aeromedical Certification Division
Federal Aviation Administration
Post Office Box 26080
Oklahoma City OK 73125-9914

OR

Medical Appeals Branch, AAM-313
Aeromedical Certification Division
Federal Aviation Administration
6700 S MacArthur Blvd., Room B-13
Oklahoma City OK 73169

No consideration can be given for special issuance until all the required data has been received.

The use of the airman's full name and date of birth on all correspondence and reports will aid the agency in locating the proper file.