

Special Issuance Authorization Procedure Coronary Artery Disease, Angina Pectoris, Heart Attack (Myocardial Infarction), Coronary Bypass Surgery, Angioplasty, Stent All Classes

A six-month recovery and stabilizing period must have elapsed after the coronary event or treatment intervention. The FAA will not consider any testing done prior to the end of the six-month recovery period.

After the recovery period, a current cardiovascular evaluation and all medical records will need to be sent directly to the FAA Aerospace Medical Certification Division in Oklahoma City. When the FAA clears your case, you will receive an authorization letter that allows the aviation medical examiner to issue you a medical certificate if you are found otherwise qualified.

The evaluation *must* include:

1. A simple request for special issuance under FAR 67.401 (I am requesting special issuance under FAR 67.401);
2. Copies of all medical and hospital records relating to your cardiac treatment. Hospital records should include admission history and physical, discharge summary, operative reports, pathology reports, daily progress notes, laboratory work, and all diagnostic test results, including *complete* ECG treadmill tracings (originals or legible copies), make, model, and serial number of implanted stents, if applicable.
3. A cardiovascular evaluation (submitted to the FAA within 60 days after testing) including:
 - a. An assessment of personal and family medical history;
 - b. Cardiac examination and general physical examination;
 - c. Blood chemistry profile with fasting plasma glucose level and total cholesterol with HDL, LDL, and triglycerides;
 - d. Statement regarding your medication dosage and frequency, functional capacity, modifiable cardiovascular risk factors, motivation for necessary change, and prognosis for incapacitation;
 - e. *Maximal* exercise treadmill stress test demonstrating functional capacity equivalent to completion of **Stage III (9 minutes)** of the 12-lead **Bruce** protocol. The Bruce protocol is a standard test in cardiology and is comprised of multiple exercise stages of 3 minutes each. At each stage, the gradient and speed of the treadmill are elevated to increase work output, called **METS**. Stage 1 of the Bruce protocol is performed at 1.7 miles per hour and a 10% gradient. Stage 2 is 2.5 mph and 12%, while Stage 3 goes to 3.4 mph and 14%.

The FAA expects testing to achieve **100%** of maximum predicted heart rate (220 minus your age) and a maximum duration of **9** minutes if possible, unless medically contraindicated or prevented by symptoms such as fatigue, leg cramps, shortness of breath, or chest discomfort. If symptoms prevent you from attaining maximum heart rate, a limited test must reach at least **85%** of the maximum predicted rate. If beta-blockers, calcium channel blockers, or digitalis-type medications are being taken to inhibit heart rate response, it may be necessary to discontinue the drugs for 48 hours before testing in order to attain adequate heart rate. **Consult with your physician before discontinuing medication.**

In situations where a treadmill exercise test cannot be done, drugs may be used in place of the treadmill test to increase heart rate. The FAA will consider this type of testing, but your cardiologist must include a detailed explanation as to the reasons for chemical testing.

All ECG tracings, including a rhythm strip and blood pressure/pulse recording, must be submitted along with the worksheet and physician's interpretation. The 12-lead ECG should be recorded at rest, supine and standing; 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 tracing returns to baseline.

- f. SPECT nuclear cardiology studies using technetium and/or thallium or cardiolite may be required if the ECG exercise stress test is equivocal, positive for ischemia, or indicative of ventricular dysfunction or other significant abnormalities. All reports of imaging, electrocardiographic tracings, blood pressure/pulse recordings, and the actual scintigram films (FAA prefers black and white monochrome) should be included.
4. If anticoagulant medication is being used, a current evaluation of PTT (partial thromboplastin times) and INR (International Normalized Ratios) should be included. The report from your treating physician should indicate evidence of stability without complications and should include dose schedules, INR reports and prothrombin times (with control values) accomplished at least *monthly* during a six-month period of observation.

For consideration for first or *unlimited second class certification, the following is also required:

1. Coronary angiography performed no sooner than six months after the cardiac event. All catheterization films, reports, and line drawings of coronary anatomy should be included.
2. A maximal nuclear exercise treadmill stress test. (See "f" above.)
3. Operational Questionnaire Form 8500-20. If you will accept a lower class of medical than you applied for, let the FAA know on the form.

*An *unlimited* second class medical has no functional limitations. A *limited* second class medical may be issued, sometimes without the need for repeat coronary angiography, to pilots who need limited commercial privileges. The limitations usually include "Not valid for carrying passengers or cargo for compensation or hire," "Not valid for PIC," or "Valid only when serving as a pilot member of a fully qualified two pilot crew." A limited second class also allows full third class privileges.

If you have not previously applied for medical certification, make copies of all records for yourself and provide the completed testing to your aviation medical examiner at the time of your FAA physical examination. The AME will defer your application and send the paperwork for you to the FAA.

If this is a **renewal** of medical certification, send the records yourself to the FAA at the address below *before* visiting the AME for a new physical examination. Use express courier service, either overnight or 2-3 day delivery via FedEx, UPS, or Airborne. It will normally take 90-120 days before you receive a response. Each case is evaluated on an individual basis, however, and significantly longer delays can occur, depending on the case history. If any of the required information is left out, it will take longer for the FAA to reach a decision.***

When the FAA approves your case, you will receive an authorization letter instructing the AME to issue your certificate if you are found otherwise qualified.

*** This procedure may be changing commencing early in 2006