

Mending Broken Hearts

*Cardiovascular conditions
and how they affect
your relationship
with the FAA*

by David R. Hale, Pilot Medical Solutions, Inc.

If there is one thing on which most pilots agree, it is their lack of fondness for the FAA's medical requirements. When asked to prove our worthiness to take to the skies, most pilots get even testier. Pilots often ask, "why must they burden me with medical certification when the incidence of medical incapacitation is virtually nil?"

In addition, some tests required by the FAA are invasive and expensive prompting even physicians to balk at the costs of providing flight-fitness proof. Cardiovascular testing is at the forefront of this controversy, as the testing required for commercial privileges has a mortality rate associated with it, albeit less than one percent. Besides being the leading cause of death in the United States, heart problems are the leading cause of medical certificate denial

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for all classes. I wouldn't say the FAA is easy, but the requirements to obtain FAA certification for matters of the heart may surprise you.

The FAA cardiovascular requirements are liberal in that few cardiovascular issues are ultimately disqualifying, however, simple issues such as hypertension (high blood pressure), cholesterol, heart murmurs, or an unusual EKG may ground pilots for months while they gather evidence that shows they are fit to fly. Most pilots are caught off-guard since they have passed medicals for years and the required paperwork is likely an intrusion in their physician's daily routine.

More than 35,000 hypertensive pilots have current medicals, making blood pressure the foremost cardiovascular issue with pilots.

While the FAA no longer publishes absolute criteria, if the systolic number is above 155 or the diastolic is over 95, expect to be grounded until it is lowered and the FAA is satisfied a serious heart problem is not the cause. The FAA accepts most medications for blood pressure control but only on a case-by-case basis. To avoid unnecessary grounding have your blood pressure checked regularly. If your pressure has been running high, have your documents well groomed before your date with the AME.

Cholesterol is not usually tested by AME's. However, if your private physician prescribes a medication to control it, have him or her write a brief letter outlining your cardiovascular history and the results from the lab work. In fact, most cardiovascular medications are acceptable to the FAA with one exception being medication to control chest pain. The severity of the condition being treated usually drives their decision.

Electrocardiogram (ECG) testing is not routinely performed by AME's unless you've had at least 35 birthdays and require a Class One physical. If they discover cardiac arrhythmia or murmurs, your AME will likely defer your medical certification decision to the FAA in Oklahoma. Again, regular checkups from a private doctor may prevent this. If an issue surfaces, get whatever testing your physician recommends along with his letter outlining the results.

Six of the 15 disqualifying conditions in the medical FAR's relate to the heart:

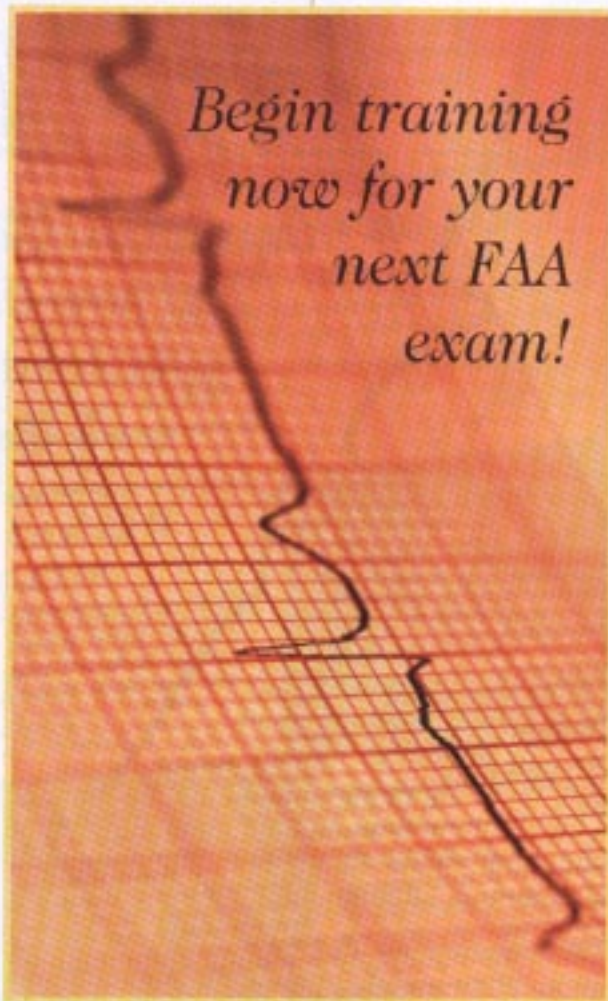
- (1) Angina Pectoris (chest pain)
- (2) Coronary Heart Disease that requires treatment or is clinically significant
- (3) Myocardial Infarction (heart attack)
- (4) Cardiac Valve Replacement
- (5) Permanent Cardiac Pacemaker
- (6) Heart Replacement

Of these, only persistent chest pain, heart replacement and having more than one valve replaced are absolutely disqualifying. The FAA may certify the others under the FAR 67.401, known as Special Issuance.

Special Issuance is the "Mother-May-I" of medical certification. Pilots willing to undergo testing may be certified despite their inability to meet the FAA's primary medical standards. The FAA's decision is based on the quality of documentation provided and the severity of the condition.

Class Three and Limited Class Two¹. Cardiovascular Special Issuance requires a complete blood count, urinalysis and a maximal exercise stress test.² Although the FAA does have a preferred method for testing and organization of the records, these are essentially the same tests a treating physician would do anyway. These tests are not valid, at least for FAA purposes, until six months have elapsed since the cardiovascular procedure or event. This is primarily because sometimes the procedure doesn't last and must be repeated.

Class One and Unlimited Class Two. This is where certification becomes invasive and expensive. The testing is basically the same as outlined above, but at the six-month point pilots must obtain nuclear imaging during the stress test and an angiogram must be performed. For those unfamiliar, angiography requires an incision in the femoral (groin) artery where a catheter carrying the nuclear dye is inserted and travels to the heart.



Invasive may be an understatement for this procedure. Many cardiologists are aghast at having to do this test for aviators. Regardless, the FAA requires it and affirms it's necessary to evaluate the risk for an incapacitating event. It is worth noting that the risk for incapacitation within the Special Issuance population is less than that of other pilots. Draw your own conclusions.

For favorable FAA consideration, all cardiovascular evaluations should include a letter from the managing physician outlining the pilot's complete history and status. This "narrative" letter should read like a storybook. Essential elements include:

1. Medical history
2. Family, personal and social history
3. Records of previous medical care
4. General physical examination

FAA form 8500-19 outlines these categories in greater detail. This form is available through the FAA or on the Internet at: www.leftseat.com/FAAforms.htm

Obviously, it is advantageous if the narrative letter has a favorable tone with closing remarks such as: "I believe this pilot is at low risk for an incapacitating event" and/or "may pilot an aircraft safely and without endangering public safety." Nevertheless, don't expect the FAA to take your physician's word for it.

Diagnostic-quality copies of all testing results must support his opinion and these results must be congruent with the FAA's policies.

Get physical. Many cardiovascular Special Issuance denials are due to poor performance on the FAA's stress test. The right fitness program may spell the difference in obtaining Special Issuance certification. Of course, fitness has value for everyone. Even the smallest amount of exercise is beneficial, can prevent many diseases, and may determine your success on your next medical. Begin training now for your next FAA exam!



¹Limited Class Two certification may be obtained with a limitation such as, not valid for carrying passengers for hire, not valid for pilot in command, limited to flight engineer duties, etc. The criterion is similar to that of Class Three.

²Heart valve replacement and pacemaker pilots must undergo additional tests. Heart valve replacement requires an echo cardiogram, 24-hour Holter monitor EKG, and coagulation studies if appropriate. Besides the requirements above, pacemaker pilots must provide an evaluation of their dependence on the pacing unit.

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